PatBase - Search results 09 February 2021
Search query (2): FT=(Screw~ and conveyor~ and compression~ or extruder~ and feed~ and paper~ and manufacturing~)
Results: 5267

Search history

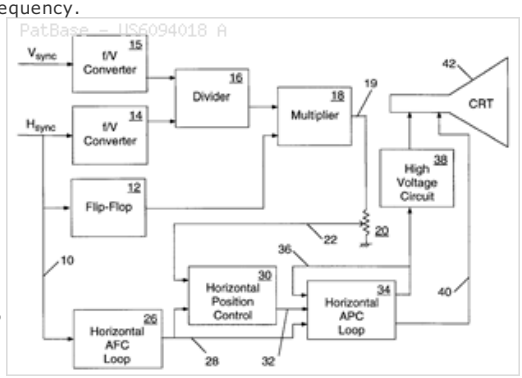
Search 1: FT=(Screw~ and conveyor~ and stopper~ bar~ and compression~ or extruder~ and feed~ and paper~ and manufacturing~) (Results 0)

Search 2: FT=(Screw~ and conveyor~ and compression~ or extruder~ and feed~ and paper~ and manufacturing~) (Results 5267)

1) Family number: 30959415 (US6094018 A)

Title: Method and apparatus for providing moir+E,acu e+EE effect correction based on displayed image resolution

Abstract: In a display monitor, a horizontal synchronization signal having a horizontal scanning frequency is received by a first circuit. A vertical synchronization signal having a vertical scanning frequency is received by a second circuit. A moir+E,acu e+EE correction signal that is proportional to a horizontal resolution of the displayed image is generated by dividing the horizontal scanning frequency by the vertical scanning frequency.



Classifications:
International (IPC 8-9): B02C18/06 B26D7/06 B26D9/00 B29C47/00 B30B11/24 B30B9/28 B31D5/02 C10L11/00 C10L11/04 C10L11/08 C10L5/36 C10L5/44 C10L5/48 H04N3/22 H04N3/227 H04N5/21 H04N5/68
International (IPC 1-7): B23D19/00 B26D9/00 B29C4/702 B29C47/02 B30B11/24 C10L1/104 C10L1/108 C10L11/00 C10L11/04 C10L11/08 C10L5/00 C10L5/36 C10L5/40 C10L5/44 G09G1/04
CPC: B26D7/065 B30B11/24 B30B11/246 C10L11/04 C10L11/08 C10L5/44 C10L5/48 H04N3/22 H04N3/227 H04N5/21 H04N5/68 Y02E50/10 Y02E50/30 Y10T83/768
US: 315/370 315/382.1 345/14 348/524 348/E03.04 348/E03.042 348/E05.077 348/E05.134 348/E3.04 348/E3.042 348/E30.4 348/E30.40S 348/E30.42 348/E30.42S 348/E5.077 348/E5.134 348/E50.77 348/E50.77S 348/E51.34 348/E51.34S 425/114 425/114P 425/202 425/202S 425/208 425/208S 425/308 425/308S 425/462 425/462S 44/53 44/530 44/534 44/535 44/535P 44/541 44/542 44/543 44/544 44/55 44/550 44/572 44/576 44/576S 44/59 44/590 44/595 44/596 44/606 44/629 44/629S 44/635 44/635S 83/469 83/469S

Family:

Publication number	Publication date	Application number	Application date
AU199961687 A1	20010510	AU19990061687	19990930
AU199961687 A5	20010510	AU19990061687	19990930
CA2386531 AA	20020402	CA19992386531	19990930
CA2386531 C	20101130	CA19992386531	19990930
CA2712351 AA	20010412	CA19992712351	19990930
CA2712351 C	20130423	CA19992712351	19990930
CA2712823 AA	20010412	CA19992712823	19990930
CA2712823 C	20120612	CA19992712823	19990930
CA2771942 AA	20010412	CA19992771942	19990930
CA2771942 C	20140805	CA19992771942	19990930
CA2804809 AA	20010412	CA19992804809	19990930
CA2804809 C	20140923	CA19992804809	19990930
MXPA02003291 A1	20040910	MX2002PA03291	19990930
US6094018 A	20000725	US19980165170	19981001
US6251147 BA	20010626	US19980165270	19981001
US6655943 BA	20031202	US19990409647	19991001
US2001001915 AA	20010531	US20010754240	20010103
US6716259 BB	20040406	US20010754240	20010103
US2001054251 AA	20011227	US20010849508	20010504
US6716260 BB	20040406	US20010849508	20010504
US2005204614 AA	20050922	US20040009700	20041210
US7628825 BB	20091208	US20040009700	20041210
US2005160665 AA	20050728	US20040009956	20041210
US7628826 BB	20091208	US20040009956	20041210
US2004247719 AA	20041209	US20040802692	20040316
US2004247720 AA	20041209	US20040802693	20040316
US7445442 BB	20081104	US20040802693	20040316
US2004244281 AA	20041209	US20040803461	20040317
US7404830 BB	20080729	US20040803461	20040317
WO0124996 A1	20010412	WO1999US23007	19990930

Priority:

US19980165170 19981001
US19980165270 19981001
WO1999US23007 19990930
CA19992712351 19990930
CA19992386531 19990930
CA19992712823 19990930
CA19992771942 19990930
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US20040009956 20041210
US20040009700 20041210
CA20102386531 20100920
CA20122712823 20120402
CA20132712351 20130219

Probable Assignee: CLEAN HEAT LLC

Assignee(s): (std): CLEAN HEAT LLC ; FLINT GARY M ; GREGORY J PETERSON ; PETERSON GREGORY J ; SONY CORP ; SONY ELECTRONICS INC

Assignee(s): FLINT GARY M930 ST.CLAIR DRIVECHICOCA95973US ; GARY M FLINT ; PETERSON GREGORY J9925 LOGAN ROADREDDINGCA96003US ; RUSSELL REINER TRUSTEE OF RYAN PETERSON ; RUSSELL REINER TRUSTEE OF RYAN PETERSON 2004 TRUST ; SAMANTHA PETERSON ; SONY 6 7 35 KATASHINAGAWASHINAGAWA KU TOKYO SONY E

Inventor(s): (std): FLINT GARY M ; FUJIMORI SHIN ; GARY M FLINT ; KIMOTO MASANOBU ; PETERSON GREGORY J ; TADANO TARO

Inventor(s): FLINT GARY ; FLINT GARY M930 ST.CLAIR DRIVECHICOCA95973US ; GREGORY J PETERSON ; PETERSON GREGORY ; PETERSON GREGORY J9925 LOGAN ROADREDDINGCA96003US

Agent(s): JOHN P; JOHN P O BANION; JOHN P OBANION OBANION AND RITCHEY LLP; MARKS AND CLERK; OBANION JOHN P

Designated states: AE AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CR CU CY CZ DE DK DM EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM

TR TT TZ UA UG US UZ VN YU ZA ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU199961687 A1	20010510	LSPB	+	published / reissued	
CA2386531 AA	20020402	LSPB	+	published / reissued	
CA2386531 AA	20040920	LSES	+EEER	EXAMINATION REQUEST	
CA2386531 C	20101130	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2386531 C	20190930	PEXP		Calculated Patent Term Expiry	
CA2386531 C	20191111	LSLE	-MKLA	LAPSED	Effective date: 20190930
CA2712351 AA	20010412	LSPB	+	published / reissued	
CA2712351 AA	20100817	LSES	+EEER	EXAMINATION REQUEST	
CA2712351 C	20130423	LSGT	+	granted / extensions (spc, cpc, pte)	
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CA2712351 C	20191111	LSLE	-MKLA	LAPSED	Effective date: 20190930
CA2712823 AA	20010412	LSPB	+	published / reissued	
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CA2712823 C	20120612	LSGT	+	granted / extensions (spc, cpc, pte)	
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CA2712823 C	20191111	LSLE	-MKLA	LAPSED	Effective date: 20190930
CA2771942 AA	20010412	LSPB	+	published / reissued	
CA2771942 AA	20120320	LSES	+EEER	EXAMINATION REQUEST	
CA2771942 C	20140805	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2771942 C	20190930	PEXP		Calculated Patent Term Expiry	
CA2771942 C	20191111	LSLE	-MKLA	LAPSED	Effective date: 20190930
CA2804809 AA	20010412	LSPB	+	published / reissued	
CA2804809 AA	20130301	LSES	+EEER	EXAMINATION REQUEST	Effective date: 20130129
CA2804809 C	20140923	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2804809 C	20190930	PEXP		Calculated Patent Term Expiry	
CA2804809 C	20191111	LSLE	-MKLA	LAPSED	Effective date: 20190930
MXPA02003291 A1	20040910	LSPB	+	published / reissued	
MXPA02003291 A1	20080306	LSGT	+FG	GRANT OR REGISTRATION	
US2001001915 AA	20010531	LSPB	+	published / reissued	
US2001001915 AA	20040318	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2001054251 AA	20011227	LSPB	+	published / reissued	
US2001054251 AA	20040318	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE

US2004244281 AA	20041209	LSPB	+	published / reissued	
US2004244281 AA	20080709	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2004247719 AA	20041209	LSPB	+	published / reissued	
US2004247719 AA	20081001	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2004247719 AA	20081001		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2004247719 AA	20081009	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:THE ESTATE OF GREGORY J. PETERSON;REEL/FRAME:021658/0722 Owner: SAMANTHA PETERSON, CALIFORNIA PartyType: owner Effective date: 20080407
US2004247719 AA	20081009	LSAS	AS	ASSIGNMENT	Owner: RUSSELL REINER, TRUSTEE OF THE RYAN PETERSON 2004 Effective date: 20080407 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:THE ESTATE OF GREGORY J. PETERSON;REEL/FRAME:021658/0722 PartyType: owner
US2004247719 AA	20081024	LSAS	AS	ASSIGNMENT	Effective date: 20080701 Owner: CLEAN HEAT, LLC, CALIFORNIA PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:FLINT, GARY;PETERSON, SAMANTHA;REINER, RUSS, TRUSTEE OF THE RYAN PETERSON 2004 TRUST;REEL/FRAME:021731/0518
US2004247720 AA	20041209	LSPB	+	published / reissued	
US2004247720 AA	20081009	LSAS	AS	ASSIGNMENT	PartyType: owner Owner: SAMANTHA PETERSON, CALIFORNIA Effective date: 20080407 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:THE ESTATE OF GREGORY J. PETERSON;REEL/FRAME:021658/0722
US2004247720 AA	20081009	LSAS	AS	ASSIGNMENT	Effective date: 20080407 PartyType: owner Owner: RUSSELL REINER, TRUSTEE OF THE RYAN PETERSON 2004 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:THE ESTATE OF GREGORY J. PETERSON;REEL/FRAME:021658/0722
US2004247720 AA	20081015	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2004247720 AA	20081024	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:FLINT, GARY;PETERSON, SAMANTHA;REINER, RUSS, TRUSTEE OF THE RYAN PETERSON 2004 TRUST;REEL/FRAME:021731/0518 Effective date: 20080701 Owner: CLEAN HEAT, LLC, CALIFORNIA PartyType: owner
US2005160665 AA	20050728	LSPB	+	published / reissued	
US2005160665 AA	20081009	LSAS	AS	ASSIGNMENT	PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:THE ESTATE OF GREGORY J. PETERSON;REEL/FRAME:021658/0722 Owner: SAMANTHA PETERSON, CALIFORNIA Effective date: 20080407
US2005160665 AA	20081009	LSAS	AS	ASSIGNMENT	Owner: RUSSELL REINER, TRUSTEE OF THE RYAN PETERSON 2004 Effective date: 20080407 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:THE ESTATE OF GREGORY J. PETERSON;REEL/FRAME:021658/0722 PartyType: owner
US2005160665 AA	20081024	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:FLINT, GARY;PETERSON, SAMANTHA;REINER, RUSS, TRUSTEE OF THE RYAN PETERSON 2004 TRUST;REEL/FRAME:021731/0518

					Effective date: 20080701 Owner: CLEAN HEAT, LLC, CALIFORNIA PartyType: owner
US2005160665 AA	20091118	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2005204614 AA	20050922	LSPB	+	published / reissued	
US2005204614 AA	20081009	LSAS	AS	ASSIGNMENT	Effective date: 20080407 PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:THE ESTATE OF GREGORY J. PETERSON;REEL/FRAME:021658/0722 Owner: SAMANTHA PETERSON, CALIFORNIA
US2005204614 AA	20081009	LSAS	AS	ASSIGNMENT	Effective date: 20080407 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:THE ESTATE OF GREGORY J. PETERSON;REEL/FRAME:021658/0722 Owner: RUSSELL REINER, TRUSTEE OF THE RYAN PETERSON 2004 PartyType: owner
US2005204614 AA	20081024	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:FLINT, GARY;PETERSON, SAMANTHA;REINER, RUSS, TRUSTEE OF THE RYAN PETERSON 2004 TRUST;REEL/FRAME:021731/0518 Owner: CLEAN HEAT, LLC, CALIFORNIA Effective date: 20080701 PartyType: owner
US2005204614 AA	20091118	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US6094018 A	19981001	LSAS	AS	ASSIGNMENT	Effective date: 19980929 Owner: SONY CORPORATION, JAPAN PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:FUJIMORI, SHIN;TADANO, TARO;KIMOTO, MASANOBU;REEL/FRAME:009513/0651
US6094018 A	19981001	LSAS	AS	ASSIGNMENT	PartyType: owner Effective date: 19980929 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:FUJIMORI, SHIN;TADANO, TARO;KIMOTO, MASANOBU;REEL/FRAME:009513/0651 Owner: SONY ELECTRONICS, INC., NEW JERSEY
US6094018 A	20000714	LSGT	PAT1	Patented Case	
US6094018 A	20000714	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US6094018 A	20000725	LSGT	+	granted / extensions (spc, cpc, pte)	
US6094018 A	20040126	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US6094018 A	20080125	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US6094018 A	20110923	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US6094018 A	20181001	PEXP		Calculated Patent Term Expiry	
US6251147 BA	20010607	LSGT	PAT1	Patented Case	
US6251147 BA	20010607	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US6251147 BA	20010626	LSGT	+	granted / extensions (spc, cpc, pte)	
US6251147 BA	20041209	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US6251147 BA	20081009	LSAS	AS	ASSIGNMENT	Effective date: 20080407 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:THE ESTATE OF GREGORY J. PETERSON;REEL/FRAME:021658/0722 Owner: SAMANTHA PETERSON, CALIFORNIA PartyType: owner
US6251147 BA	20081009	LSAS	AS	ASSIGNMENT	Effective date: 20080407 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:THE ESTATE OF GREGORY J. PETERSON;REEL/FRAME:021658/0722 Owner: RUSSELL REINER, TRUSTEE OF THE RYAN PETERSON 2004 PartyType: owner

US6251147 BA	20081024	LSAS	AS	ASSIGNMENT	Effective date: 20080701 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:FLINT, GARY;PETERSON, SAMANTHA;REINER, RUSS, TRUSTEE OF THE RYAN PETERSON 2004 TRUST;REEL/FRAME:021731/0518 Owner: CLEAN HEAT, LLC, CALIFORNIA PartyType: owner
US6251147 BA	20090105		REMI	MAINTENANCE FEE REMINDER MAILED	
US6251147 BA	20090624	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US6251147 BA	20090624		+SULP	SURCHARGE FOR LATE PAYMENT	Year of fee payment: 7
US6251147 BA	20121221	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US6251147 BA	20181001	PEXP		Calculated Patent Term Expiry	
US6655943 BA	20031113	LSGT	PAT1	Patented Case	
US6655943 BA	20031113	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US6655943 BA	20031202	LSGT	+	granted / extensions (spc, cpc, pte)	
US6655943 BA	20070618		REMI	MAINTENANCE FEE REMINDER MAILED	
US6655943 BA	20071115	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US6655943 BA	20071115		+SULP	SURCHARGE FOR LATE PAYMENT	
US6655943 BA	20081009	LSAS	AS	ASSIGNMENT	Effective date: 20080407 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:THE ESTATE OF GREGORY J. PETERSON;REEL/FRAME:021658/0722 Owner: SAMANTHA PETERSON, CALIFORNIA PartyType: owner
US6655943 BA	20081009	LSAS	AS	ASSIGNMENT	Effective date: 20080407 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:THE ESTATE OF GREGORY J. PETERSON;REEL/FRAME:021658/0722 Owner: RUSSELL REINER, TRUSTEE OF THE RYAN PETERSON 2004 PartyType: owner
US6655943 BA	20081024	LSAS	AS	ASSIGNMENT	Effective date: 20080701 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:FLINT, GARY;PETERSON, SAMANTHA;REINER, RUSS, TRUSTEE OF THE RYAN PETERSON 2004 TRUST;REEL/FRAME:021731/0518 Owner: CLEAN HEAT, LLC, CALIFORNIA PartyType: owner
US6655943 BA	20110711		REMI	MAINTENANCE FEE REMINDER MAILED	
US6655943 BA	20110804	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US6655943 BA	20110804		+SULP	SURCHARGE FOR LATE PAYMENT	Year of fee payment: 7
US6655943 BA	20150520	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US6655943 BA	20191001	PEXP		Calculated Patent Term Expiry	
US6716259 BB	20040318	LSGT	PAT1	Patented Case	
US6716259 BB	20040406	LSGT	+	granted / extensions (spc, cpc, pte)	
US6716259 BB	20071015		REMI	MAINTENANCE FEE REMINDER MAILED	
US6716259 BB	20071115	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US6716259 BB	20071115		+SULP	SURCHARGE FOR LATE PAYMENT	
US6716259 BB	20081009	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:THE ESTATE OF GREGORY J. PETERSON;REEL/FRAME:021658/0722 Effective date: 20080407 Owner: SAMANTHA PETERSON, CALIFORNIA PartyType: owner
US6716259 BB	20081009	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:THE ESTATE OF GREGORY J.

					PETERSON;REEL/FRAME:021658/0722 Owner: RUSSELL REINER, TRUSTEE OF THE RYAN PETERSON 2004 Effective date: 20080407 PartyType: owner
US6716259 BB	20081024	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:FLINT, GARY;PETERSON, SAMANTHA;REINER, RUSS, TRUSTEE OF THE RYAN PETERSON 2004 TRUST;REEL/FRAME:021731/0518 Owner: CLEAN HEAT, LLC, CALIFORNIA PartyType: owner Effective date: 20080701
US6716259 BB	20110922	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US6716259 BB	20150923	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US6716259 BB	20210519	PEXP		Calculated Patent Term Expiry (PTA 136 days and a terminal disclaimer has been filed)	
US6716260 BB	20040318	LSGT	PAT1	Patented Case	
US6716260 BB	20040406	LSGT	+	granted / extensions (spc, cpc, pte)	
US6716260 BB	20071015		REMI	MAINTENANCE FEE REMINDER MAILED	
US6716260 BB	20071115	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US6716260 BB	20071115		+SULP	SURCHARGE FOR LATE PAYMENT	
US6716260 BB	20081009	LSAS	AS	ASSIGNMENT	Effective date: 20080407 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:THE ESTATE OF GREGORY J. PETERSON;REEL/FRAME:021658/0722 Owner: SAMANTHA PETERSON, CALIFORNIA PartyType: owner
US6716260 BB	20081009	LSAS	AS	ASSIGNMENT	Effective date: 20080407 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:THE ESTATE OF GREGORY J. PETERSON;REEL/FRAME:021658/0722 Owner: RUSSELL REINER, TRUSTEE OF THE RYAN PETERSON 2004 PartyType: owner
US6716260 BB	20081024	LSAS	AS	ASSIGNMENT	Effective date: 20080701 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:FLINT, GARY;PETERSON, SAMANTHA;REINER, RUSS, TRUSTEE OF THE RYAN PETERSON 2004 TRUST;REEL/FRAME:021731/0518 Owner: CLEAN HEAT, LLC, CALIFORNIA PartyType: owner
US6716260 BB	20110922	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US6716260 BB	20150923	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US6716260 BB	20181018	PEXP		Calculated Patent Term Expiry (PTA 17 days and a terminal disclaimer has been filed)	
US7404830 BB	20080709	LSGT	PAT1	Patented Case	
US7404830 BB	20080729	LSGT	+	granted / extensions (spc, cpc, pte)	
US7404830 BB	20081009	LSAS	AS	ASSIGNMENT	Effective date: 20080407 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:THE ESTATE OF GREGORY J. PETERSON;REEL/FRAME:021658/0722 Owner: SAMANTHA PETERSON, CALIFORNIA PartyType: owner
US7404830 BB	20081009	LSAS	AS	ASSIGNMENT	Effective date: 20080407 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:THE ESTATE OF GREGORY J. PETERSON;REEL/FRAME:021658/0722 Owner: RUSSELL REINER, TRUSTEE OF THE RYAN PETERSON 2004 PartyType: owner
US7404830 BB	20081024	LSAS	AS	ASSIGNMENT	Effective date: 20080701 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:FLINT, GARY;PETERSON, SAMANTHA;REINER, RUSS, TRUSTEE OF THE RYAN PETERSON 2004 TRUST;REEL/FRAME:021731/0518

					Owner: CLEAN HEAT, LLC, CALIFORNIA PartyType: owner
US7404830 BB	20120208	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US7404830 BB	20120208		+SULP	SURCHARGE FOR LATE PAYMENT	
US7404830 BB	20160113	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US7404830 BB	20200113	PEXP		Calculated Patent Term Expiry (PTA 469 days and a terminal disclaimer has been filed)	
US7404830 BB	20200316	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US7404830 BB	20200831	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	Text: PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US7404830 BB	20201005	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US7445442 BB	20081015	LSGT	PAT1	Patented Case	
US7445442 BB	20081104	LSGT	+	granted / extensions (spc, cpc, pte)	
US7445442 BB	20120504	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US7445442 BB	20160420	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US7445442 BB	20190906	PEXP		Calculated Patent Term Expiry (PTA 340 days and a terminal disclaimer has been filed)	
US7445442 BB	20200622	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US7445442 BB	20201207	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	Text: PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US7445442 BB	20201207	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US7445442 BB	20201229	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20201104
US7628825 BB	20091118	LSGT	PAT1	Patented Case	
US7628825 BB	20091208	LSGT	+	granted / extensions (spc, cpc, pte)	
US7628825 BB	20101102	LSRE	CC	CERTIFICATE OF CORRECTION	
US7628825 BB	20130719		REMI	MAINTENANCE FEE REMINDER MAILED	
US7628825 BB	20130827	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US7628825 BB	20130827		+SULP	SURCHARGE FOR LATE PAYMENT	
US7628825 BB	20170525	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US7628825 BB	20211006	PEXP		Calculated Patent Term Expiry (PTA 1101 days and a terminal disclaimer has been filed)	
US7628826 BB	20091118	LSGT	PAT1	Patented Case	
US7628826 BB	20091208	LSGT	+	granted / extensions (spc, cpc, pte)	
US7628826 BB	20101102	LSRE	CC	CERTIFICATE OF CORRECTION	
US7628826 BB	20130719		REMI	MAINTENANCE FEE REMINDER MAILED	
US7628826 BB	20130827	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US7628826 BB	20130827		+SULP	SURCHARGE FOR LATE PAYMENT	

US7628826 BB	20170525	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US7628826 BB	20220426	PEXP		Calculated Patent Term Expiry (PTA 1303 days)	
WO0124996 A1	20010103	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 09754240 Country of Ref document: US
WO0124996 A1	20010412	LSPB	+	published / reissued	
WO0124996 A1	20010412		+AK	DESIGNATED STATES	Kind code of Ref document: A1 Country of Ref document: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
WO0124996 A1	20010412		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: A1 Country of Ref document: AM AT AZ BE BF BJ BY CF CG CH CI CM CY DE DK ES FI FR GA GB GH GM GN GR GW IE IT KE KG KZ LS LU MC MD ML MR MW NE NL PT RU SD SE SL SN SZ TD TG TJ TM TZ UG ZW
WO0124996 A1	20010606		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	
WO0124996 A1	20010719		DFPE	REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH MONTH FROM PRIORITY DATE (PCT APPLICATION FILED BEFORE 20040101)	
WO0124996 A1	20020401	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: PA/a/2002/003291 Country of Ref document: MX
WO0124996 A1	20020402	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2386531 Country of Ref document: CA
WO0124996 A1	20020912	LSWD	REG	REFERENCE TO NATIONAL CODE	Ref legal event code: 8642 Ref country code: DE
WO0124996 A1	20021127	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	Ref country code: WO

2) Family number: 9432278 (US5503788 A)

Title: AUTOMOBILE SHREDDER RESIDUE-SYNTHETIC PLASTIC MATERIAL COMPOSITE, AND METHOD FOR PREPARING THE SAME

Abstract: A method is provided for processing a mixture raw automobile shredder residue, and virgin and/or contaminated synthetic plastic material, e.g., raw post consumer plastic waste. By means of this method, automobile shredder residue produced by a conventional automobile shredder is formed into a first stream by being ground in a first granulating zone to a reasonable small granular size using conventional equipment. A second stream comprising virgin and/or contaminated synthetic plastics material is ground in a second granulating zones. The two streams are combined to provide a processable mixture. The processable mixture is introduced into a high intensity, mixer. The processable mixtures transformed into a semi-molten discharge stream by the kinetic energy imparted to the processable mixture by the mixer are simultaneously vented from the mixer. The semi-molten mixture emerging from the mixer is then introduced into an **extruder** or press where it is formed into a mass of desired shape, and cooled. This method allows for the production of useful, shaped masses from two different classes of materials which have been otherwise treated as waste.

Classifications:
International (IPC 8-9): B09B3/00 B29B11/14 B29B13/10 B29B17/00 B29B17/02 B29B17/04 B29B9/02 B29B9/06 B29K101/00 B29K105/26
International (IPC 1-7): B09B3/00 B29B11/14 B29B13/10 B29B17/00 B29B17/02 B29B9/06 B29C47/00 B29K101/00 B29K105/26
CPC: B03B2009/068 B29B17/02 B29B2017/0272 B29K2023/06 B29K2023/12 B29K2025/00 B29K2027/06 B29K2033/12 B29K2055/02 B29K2067/00 B29K2067/006 B29K2075/00 B29K2077/00 B29K2105/06 B29K2705/00 B29L2031/3055 Y02W30/52 Y02W30/62 Y10S264/912 Y10S264/913 Y10S264/916 Y10S264/92
US: 264/115 264/118 264/121 264/122 264/126 264/912 264/913 264/916 264/920 264/DIG.69 428/903.3

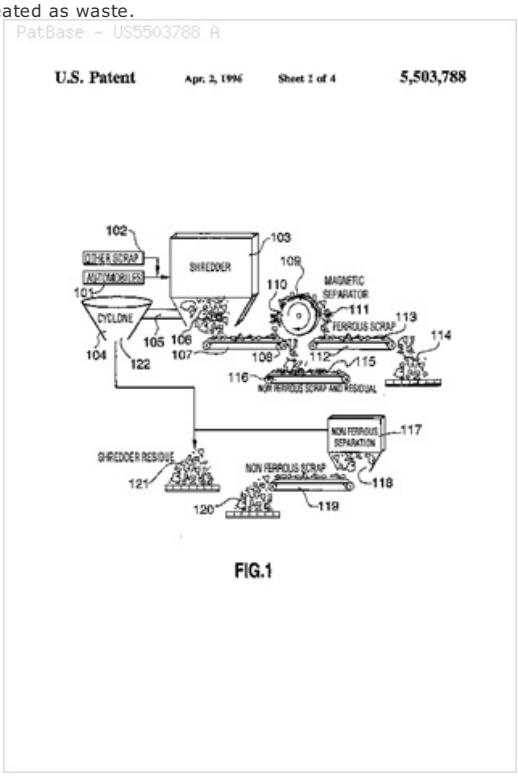


FIG.1

Family:

Publication number	Publication date	Application number	Application date
CA2153450 AA	19960113	CA19952153450	19950707
CA2153450 C	19970318	CA19952153450	19950707
EP0692356 A2	19960117	EP19950850131	19950711
EP0692356 A3	19960731	EP19950850131	19950711
JP9085212 A2	19970331	JP19950208995	19950712
US5503788 A	19960402	US19940273844	19940712

Priority:
US19940273844 19940712 CA19952153450 19950707

Probable Assignee: LAZARECK JACK
Assignee(s): (std): LAZARECK JACK ; RAZARETSUKU JIYATSUKU ; UORUSHIYU MAATEIN ; WALSH MARTIN
Inventor(s): (std): LAZARECK JACK ; RAZARETSUKU JIYATSUKU ; UORUSHIYU MAATEIN ; WALSH MARTIN
Agent(s): BORDEN LADNER GERVAIS LLP
Designated states: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CA2153450 AA	19951220	LSES	+EEER	EXAMINATION REQUEST	
CA2153450 AA	19960113	LSPB	+	published / reissued	
CA2153450 C	19970318	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2153450 C	20060707	LSLE	-MKLA	LAPSED	
CA2153450 C	20150707	PEXP		Calculated Patent Term Expiry	
EP0692356 A2	19960117	LSPB	+	published / reissued	
EP0692356 A2	19960117		+AK	DESIGNATED	Kind code of Ref document:

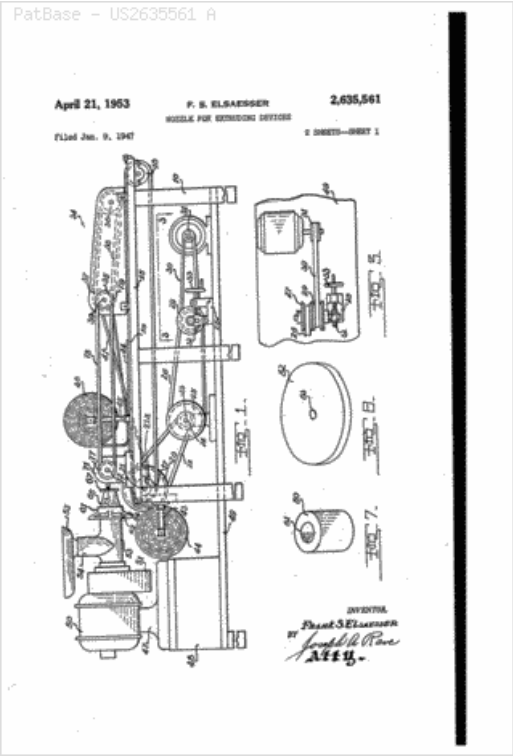
				CONTRACTING STATES	A2 Country of Ref document: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE
EP0692356 A3	19960731		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A3 Country of Ref document: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE
EP0692356 A3	19970402	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 19970131
EP0692356 A3	19981104	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 19980921
EP0692356 A3	19990908	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	Effective date: 19990312
JP9085212 A2	19970331	LSPB	+	published / reissued	
US5503788 A	19960321	LSGT	PAT1	Patented Case	
US5503788 A	19960402	LSGT	+	granted / extensions (spc, cpc, pte)	
US5503788 A	19990812	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5503788 A	20031022		REMI	MAINTENANCE FEE REMINDER MAILED	
US5503788 A	20040402	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5503788 A	20040601	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20040402
US5503788 A	20140712	PEXP		Calculated Patent Term Expiry	
US5503788 A	20180125	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5503788 A	20180125	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362

3) Family number: 21853601 (US2635561 A)

Title: NOZZLE FOR **EXTRUDING** DEVICES

Abstract: (Claim 1) 1. In a device of the class described_ the combination of a housing having a discharge end, a **feed screw** centrally of the housing and termi- nating at the disch,arge end of the housing, a shaft integral with and projecting forwardly of the **feed screw**, a corhminutor at the discharge end of the housing ,ihead of the **feed screw** and received on the **feed screw** shaft, a discharge liozzle ahead of the coniminutor comprising a ho llonv.conically sha_ed body portion with the larger end as- the en ant and _ the smaller end as the dischorge, a' radially, outwardly projecting mouziting flatige 'at the entrant end of the nozzle, said nozzle mounting flange contacting the cor_imiwator at the perimeter thereof, a nut **screwed** on the housing and having a radially, inwardly projecting flange for engagement with th I e outwardly projecting nozzle fiange for se- curing the comminutor and nozzle in pbsition, and a core element, having a, socket in one end mounted on and secured to the **feed screw** shaft to be substantially central of the commini-itor aiid project axially of the nozzl6 body portion with said core _element of substantially uniform diameter from end to end for coop6ration witli the said nozzle body portion conical wall in **compressing** the comminuted particles within the nozzle and prior to the discharge thereof-, sa4.d '35 **feed** _screiv s I haf t pro ee 9 u sai co minutor to receive therelon the so-cket in said core element.

Classifications:
International (IPC 8-9): A21C11/00 A21C11/16 A22C7/00
International (IPC 1-7): A21C5/00 A22C7/00
CPC: A21C11/16 A22C7/00
US: 241/82.5 425/190 425/197 425/308 425/89



Family:

Publication number	Publication date	Application number	Application date
US2635561 A	19530421	US19470721128	19470109

Priority:
US19470721128 19470109

Probable Assignee: ELSAESSER FRANK S
Assignee(s): (std): ELSAESSER FRANK S
Inventor(s): (std): ELSAESSER FRANK S

Legal status (INPADOC)

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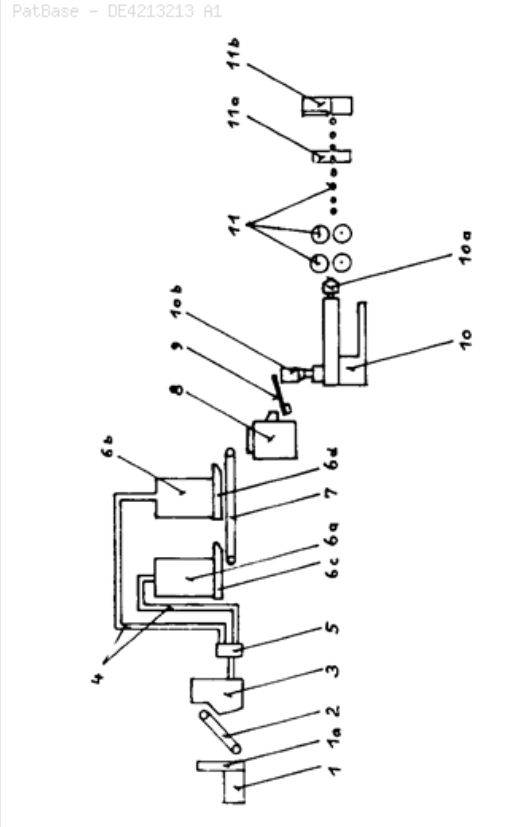
Patent	Date recorded	Event group	Code	Event	Details
US2635561 A	19530421	LSGT	+	granted / extensions (spc, cpc, pte)	

4) Family number: 10936718 (DE4213213 A1)

Title: MACHINE FOR PRODN. OF SHEET FROM SCRAP THERMOPLASTICS AND **PAPER** - HAS BREAKER FOR RESPECTIVE RAW BALES, DISINTEGRATOR, CHIPS STORES AND DISPENSER, **EXTRUDER** WITH FLAT SHEET DIE, COOLING ROLLERS AND EDGE TRIMMERS

Abstract: A plant has rollers, a bales breaker, a cutter, sorter, at least two silos for disintegrated chips each silo having regulated dischargers, a processing device, an **extruder** with flat sheet die and intermediate container, a cooling station with side and cross-cutter. These various components are linked together by **conveyors** so that there is a continuous uninterrupted flow of material through from the scrap to the final sheets. Plastic and **paper** scrap are supplied in bales and these are placed on the roller **conveyor** (1) before being cut into sheets. These are set on a **conveyor** belt (2), passed through a metal detector and then to a disintegrator (3), from which the chips produced are stored (6a,6b), one for plastics and one for **paper** via the sorting gate (5). The respective chips are passed in controlled ratio out to the **conveyor** belt (7) and to the container (10b); this **feeds** an **extruder** (10) whose flat sheet extrusion is passed through cooling rollers (11) and is then trimmed (11a,11b). ADVANTAGE - The plant can utilise production scrap plastic materials as well as domestic scrap, or even composite plastic scrap and convert them into sheets.

Classifications:
International (IPC 8-9): B09B3/00 B29B17/00 B29B17/04 B29C47/00 B29C47/38 B29C47/88 B29C48/395
International (IPC 1-7): B09B3/00 B27N1/02 B27N3/00 B29B17/00 B29C47/14 B29C47/88 B29C69/00 B29L31/10 B32B31/00 B65D65/38 C08J11/06 D21F9/00
CPC: B09B3/0033 B29B17/0026 B29C48/0022 B29C48/022 B29C48/07 B29C48/08 B29C48/395 B29K2105/26 B29K2311/12 B29K2711/12 B29L2007/002 Y02W30/62 B29B17/04 B29C48/0018 B29C48/0021 B29C48/906 B29C48/9145 B32B37/12



Family:

Publication number	Publication date	Application number	Application date
DE4213213 A1	19931028	DE19924213213	19920422
DE4226837 A1	19940217	DE19924226837	19920813

Priority:
DE19924213213 19920422 DE19924226837 19920813

Probable Assignee: SCHNAUSE ROLF DIPL ING
Assignee(s): (std): SCHNAUSE ROLF DIPL ING
Assignee(s): SCHNAUSE ROLF DIPL ING 90542 ECKENTAL DE
Inventor(s): (std): SCHLOESSER HELMUT ; SCHNAUSE ROLF ; SCHNAUSE ROLF DIPL ING
Inventor(s): SCHLOESSER HELMUT 5202 HENNEF DE ; SCHNAUSE ROLF 8501 ECKENTAL DE

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
DE4213213 A1	19931028	LSPB	+	published / reissued	
DE4213213 A1	19931028	LSES	+OM8	SEARCH REPORT AVAILABLE AS TO PARAGRAPH 43 LIT. 1 SENTENCE 1 PATENT LAW	
DE4213213 A1	19940217		AG	HAS ADDITION NO.	Ref document number: 4226837 Country of Ref document: DE
DE4213213 A1	19940616	LSAS	8127	NEW PERSON/NAME/ADDRESS OF THE APPLICANT	Owner: SCHNAUSE, ROLF, DIPL.-ING., 24105 KIEL, DE PartyType: owner

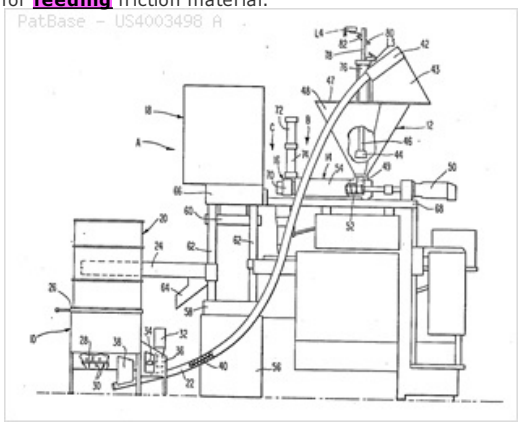
DE4213213 A1	19990610	LSLE	-8139	DISPOSAL/NON-PAYMENT OF THE ANNUAL FEE	
DE4226837 A1	19940217	LSPB	+	published / reissued	
DE4226837 A1	19940217		AF	IS ADDITION TO NO.	Ref document number: 4213213 Country of Ref document: DE
DE4226837 A1	19940217	LSES	+OM8	SEARCH REPORT AVAILABLE AS TO PARAGRAPH 43 LIT. 1 SENTENCE 1 PATENT LAW	
DE4226837 A1	19940623	LSAS	8127	NEW PERSON/NAME/ADDRESS OF THE APPLICANT	Owner: SCHNAUSE, ROLF, DIPL.-ING., 24105 KIEL, DE PartyType: owner
DE4226837 A1	19990923	LSRV	-8131	REJECTION	

5) Family number: 1399617 (US4003498 A)

Title: METHOD AND APPARATUS FOR CONTROLLED **FEEDING** OF FRICTION MATERIAL

Abstract: A novel method and an improved combination of apparatus are provided for controlled **feeding** of dry friction and other high bulk materials along a closed path, whereby release of dust particles of the friction or other high bulk material is substantially eliminated. The method and apparatus are particularly suited to **feeding** the dry material from a remote storage container along a closed path and into contact with a rotatable **screw** for at least partially plasticizing the dry material in preparation for **compression** molding thereof. Also provided is apparatus for molding rigid structures from dry friction material, having as a portion thereof the improved apparatus for **feeding** friction material.

Classifications:
International (IPC 8-9): B29C33/00 B29C43/00 B29C43/02 B29C43/14 B29C43/32 B29C43/34 B29C43/36 B29C43/50 B29C43/58 B29C47/10 B30B15/30 B65G65/00 B65G65/40 C08J5/14 C09K3/14 F16D69/00
International (IPC 1-7): B01F15/02 B01F15/04 B01F7/04 B01F7/08 B29B5/04 B29B5/06 B29C3/00 B29C3/04 B29F3/02 B29F3/06 B29G1/00 B29J B65G65/40 F16D69/00
CPC: B29C43/34 B29C48/07 B29C48/2886 B29C48/29 B29K2105/12 B29K2303/04 B29K2503/04 B30B15/30 B29C47/10 B29C48/03
US: 198/526 222/1 222/227 222/56 222/643 264/122 264/323 264/325 264/40.4 264/40.7 264/68 425/147 425/155 425/205 425/327



Family:

Publication number	Publication date	Application number	Application date
BE845139 A	19761201	BE19762055238	19760813
BE845140 A	19761201	BE19762055239	19760813
CA1019917 A1	19771101	CA19760253549	19760527
CA1020318 A1	19771108	CA19770271657	19770214
CA1020318 A2	19771108	CA19770271657	19770214
DE2633688 A1	19770602	DE19762633688	19760727
DE2633689 A1	19770602	DE19762633689	19760727
GB1517852 A	19780712	GB19760030412	19760721
GB1517851 A	19780712	GB19760030414	19760721
JP1111685 C3	19820831	JP19760131332	19761102
JP52074778 A2	19770623	JP19760131332	19761102
JP57003489 B4	19820121	JP19760131332	19761102
JP57057135 A2	19820406	JP19810114513	19810723
US4108935 A	19780822	US19750633054	19751118
US4003498 A	19770118	US19750637914	19751205
US4102620 A	19780725	US19760737880	19761227
US4138463 A	19790206	US19770799874	19770523

Priority:

US19750633054 19751118 US19750637914 19751205 CA19760253549 19760527 CA19770271657 19770214

Probable Assignee: PENNWALT CORP
Assignee(s): (std): PENNWALT CORP
Assignee(s): ATOCHEM NORTH AMERICA INC ; ATOCHEM NORTH AMERICA INC A PA CORP ; MONEGHAN EDWARD
Inventor(s): (std): EDOWAADO MONEGAN ; MONEGHAN EDWARD ; MONEGHAN EDWARD E

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
BE845139 A	19761201	LSPB	+	published / reissued	
BE845140 A	19761201	LSPB	+	published / reissued	
CA1019917 A1					
CA1020318 A1					
CA1020318 A2	19771108	LSGT	+	granted / extensions (spc, cpc, pte)	
DE2633688 A1	19770602	LSPB	+	published / reissued	
DE2633688 A1	19821007	LSLE	-8139	DISPOSAL/NON-PAYMENT OF THE ANNUAL FEE	
DE2633689 A1	19770602	LSPB	+	published / reissued	

DE2633689 A1	19821007	LSLE	-8139	DISPOSAL/NON-PAYMENT OF THE ANNUAL FEE	
GB1517851 A	19780712	LSGT	+	granted / extensions (spc, cpc, pte)	
GB1517851 A	19781129	LSGT	+PS	PATENT SEALED [SECTION 19, PATENTS ACT 1949]	
GB1517851 A	19830223	LSLE	-PCNP	PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	
GB1517851 A	19960721	PEXP		Calculated Patent Term Expiry	
GB1517852 A	19780712	LSGT	+	granted / extensions (spc, cpc, pte)	
GB1517852 A	19781129	LSGT	+PS	PATENT SEALED [SECTION 19, PATENTS ACT 1949]	
GB1517852 A	19820217	LSLE	-PCNP	PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	
GB1517852 A	19960721	PEXP		Calculated Patent Term Expiry	
JP1111685 C3	19820831	LSGT	+	granted / extensions (spc, cpc, pte)	
JP52074778 A2	19770623	LSPB	+	published / reissued	
JP57003489 B4	19820121	LSPB	+	published / reissued	
JP57057135 A2	19820406	LSPB	+	published / reissued	
US4003498 A	19770118	LSGT	+	granted / extensions (spc, cpc, pte)	
US4003498 A	19900917	LSAS	AS	ASSIGNMENT	PartyType: owner Owner: ATOCHEM NORTH AMERICA, INC., A PA CORP. Effective date: 19891231 OldParty: MERGER AND CHANGE OF NAME EFFECTIVE ON DECEMBER 31, 1989, IN PENNSYLVANIA;ASSIGNORS:ATOCHEM INC., A DE CORP. (MERGED INTO);M&T CHEMICALS INC., A DE CORP. (MERGED INTO);PENNWALT CORPORATION, A PA CORP. (CHANGED TO);REEL/FRAME:005496/0003
US4003498 A	19951205	PEXP		Calculated Patent Term Expiry	
US4102620 A	19780725	LSGT	+	granted / extensions (spc, cpc, pte)	
US4102620 A	19900917	LSAS	AS	ASSIGNMENT	Owner: ATOCHEM NORTH AMERICA, INC., A PA CORP. OldParty: MERGER AND CHANGE OF NAME EFFECTIVE ON DECEMBER 31, 1989, IN PENNSYLVANIA;ASSIGNORS:ATOCHEM INC., A DE CORP. (MERGED INTO);M&T CHEMICALS INC., A DE CORP. (MERGED INTO);PENNWALT CORPORATION, A PA CORP. (CHANGED TO);REEL/FRAME:005496/0003 PartyType: owner Effective date: 19891231
US4102620 A	19961227	PEXP		Calculated Patent Term Expiry	
US4108935 A	19780822	LSGT	+	granted / extensions (spc, cpc, pte)	
US4108935 A	19900917	LSAS	AS	ASSIGNMENT	Owner: ATOCHEM NORTH AMERICA, INC., A PA CORP. Effective date: 19891231 PartyType: owner OldParty: MERGER AND CHANGE OF NAME EFFECTIVE ON DECEMBER 31,

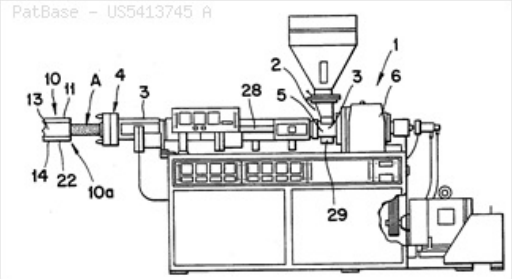
					1989, IN PENNSYLVANIA;ASSIGNORS:ATOCHEM INC., A DE CORP. (MERGED INTO);M&T CHEMICALS INC., A DE CORP. (MERGED INTO);PENNWALT CORPORATION, A PA CORP. (CHANGED TO);REEL/FRAME:005496/0003
US4108935 A	19951118	PEXP		Calculated Patent Term Expiry	
US4138463 A	19790206	LSGT	+	granted / extensions (spc, cpc, pte)	
US4138463 A	19900917	LSAS	AS	ASSIGNMENT	PartyType: owner Owner: ATOCHEM NORTH AMERICA, INC., A PA CORP. OldParty: MERGER AND CHANGE OF NAME EFFECTIVE ON DECEMBER 31, 1989, IN PENNSYLVANIA;ASSIGNORS:ATOCHEM INC., A DE CORP. (MERGED INTO);M&T CHEMICALS INC., A DE CORP. (MERGED INTO);PENNWALT CORPORATION, A PA CORP. (CHANGED TO);REEL/FRAME:005496/0003 Effective date: 19891231
US4138463 A	19970523	PEXP		Calculated Patent Term Expiry	

6) Family number: 3399091 (US5413745 A)

Title: METHOD AND APPARATUS FOR PRODUCING AN ELONGATED BEAM

Abstract: A method and apparatus for producing an elongated beam from **compressible** material. A mixture of filling material and plastic material is delivered to a first space and there **compressed**. The **compressed** material is pressed through a nozzle into a second space defined by a matrix of wall parts, where the material is made more rigid. The wall parts of the matrix can be moved backwards and forwards in a particular sequence to enable beam parts to be fed continuously through the matrix.

Classifications:
International (IPC 8-9): B29B17/00 B29C47/08 B29C47/34 B29C47/92 B29C48/355 B29C48/92 B29D12/00 B30B11/22
International (IPC 1-7): B29B17/00 B29C47/00 B29C47/08 B29C47/34 B29C47/38 B29C47/88 B29C47/92 B29D12/00
CPC: B29B17/0042 B29C2948/9259 B29C2948/92885 B29C48/06 B29C48/09 B29C48/355 B30B11/22 Y02W30/62 B29C47/0016 B29C47/0023 B29C47/34 B29C47/92
US: 264/119 264/323 264/68 425/325 425/377



Family:

Publication number	Publication date	Application number	Application date
AT151336 E	19970415	AT19900917422T	19901119
AU199168834 A1	19910613	AU19910068834	19901119
AU650435 B2	19940623	AU19910068834	19901119
CA2069091 AA	19920520	CA19902069091	19901119
CA2069091 C	19960521	CA19902069091	19901119
DE69030450 D1	19970515	DE19906030450T	19901119
DE69030450 T2	19971106	DE19906030450T	19901119
DK0593444 T3	19971027	DK19900917422T	19901119
EP0593444 A1	19940427	EP19900917422	19901119
EP0593444 B1	19970409	EP19900917422	19901119
ES2102369 T3	19970801	ES19900917422T	19901119
JP5504520 T2	19930715	JP19910500319T	19901119
NZ236163 A	19920625	NZ19900236163	19901120
SE468278 B	19921207	SE19890003907	19891121
SE468278 C	19930513	SE19890003907	19891121
SE8903907 A0	19891121	SE19890003907	19891121
SE8903907 L	19910522	SE19890003907	19891121
US5413745 A	19950509	US19920915591	19920721
WO9107270 A1	19910530	WO1990SE00748	19901119

Priority:
SE19890003907 19891121 WO1990SE00748 19901119

Probable Assignee: ANDERSSON CURT
Assignee(s): (std): ANDERSON CURT ; ANDERSSON CURT
Assignee(s): ANDERSSON CURT KATRINEHOLM SE ; CURT ANDERSON ; CURT ANDERSSON
Inventor(s): (std): ANDERSON CURT ; ANDERSSON CURT
Inventor(s): ANDERSSON CURT KATRINEHOLM SE ; CURT ANDERSSON
Agent(s): GRIFFITH HACK; SMART AND BIGGAR
Designated states: AT AU BB BE BF BG BJ BR CA CF CG CH CM DE DK ES FI FR GA GB GR HU IT JP KP KR LI LK LU MC MG ML MR MW NL NO RO SD SE SN SU TD TG US

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT151336 E	19970415	LSGT	+	granted / extensions (spc, cpc, pte)	
AT151336 E	19971015	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	
AT151336 E	20020815	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT151336 E	20101119	PEXP		Calculated Patent Term Expiry	
AU199168834 A1	19910613	LSPB	+	published / reissued	
AU650435 B2	19940623	LSGT	+	granted / extensions (spc, cpc, pte)	
AU650435 B2	20020620	LSLE	-MK14	PATENT CEASED SECTION 143(A)	

				(ANNUAL FEES NOT PAID) OR EXPIRED	
AU650435 B2	20101119	PEXP		Calculated Patent Term Expiry	
CA2069091 AA	19920520	LSPB	+	published / reissued	
CA2069091 AA	19930827	LSES	+EEER	EXAMINATION REQUEST	
CA2069091 C	19960521	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2069091 C	20031119	LSLE	-MKLA	LAPSED	
CA2069091 C	20101119	PEXP		Calculated Patent Term Expiry	
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DE69030450 T2	19971106	LSGT	+	granted / extensions (spc, cpc, pte)	
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DK0593444 T3	19971027	LSGT	+	granted / extensions (spc, cpc, pte)	
DK0593444 T3	20101119	PEXP		Calculated Patent Term Expiry	
EP0593444 A1	19940427	LSPB	+	published / reissued	
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EP0593444 A1	19940427		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AT BE CH DE DK ES FR GB GR IT LI LU NL SE
EP0593444 A1	19960710	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 19960528
EP0593444 B1	19970409	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0593444 B1	19970409		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: B1 Country of Ref document: AT BE CH DE DK ES FR GB GR IT LI LU NL SE
EP0593444 B1	19970409	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 19970409 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: GR
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EP0593444 B1	19970415	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: EP
EP0593444 B1	19970515		REF	CORRESPONDS TO:	Date of Ref document: 19970515 Ref document number: 69030450 Country of Ref document: DE
EP0593444 B1	19970709	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 19970709 Country of Ref document: SE
EP0593444 B1	19970715		REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Representative: ARDIN & CIE S.A. Ref legal event code: NV PartyType: representative

EP0593444 B1	19970801		+ET	FR: TRANSLATION FILED	
EP0593444 B1	19970801	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: FG2A Ref document number: 2102369 Kind code of Ref document: T3 Ref country code: ES Country of Ref document: ES
EP0593444 B1	19971027		REG	REFERENCE TO A NATIONAL CODE	Ref country code: DK Ref legal event code: T3
EP0593444 B1	19980401	LSGT	+26N	NO OPPOSITION FILED	
EP0593444 B1	20010518	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 11 Payment date: 20010518 Country of Ref document: GB
EP0593444 B1	20010530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 11 Payment date: 20010530 Country of Ref document: AT
EP0593444 B1	20010530	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20010530 Year of fee payment: 11 Country of Ref document: FR
EP0593444 B1	20011119	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20011119 Country of Ref document: AT
EP0593444 B1	20011119	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20011119 Country of Ref document: GB
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EP0593444 B1	20020531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20020531 Year of fee payment: 12 Country of Ref document: DE
EP0593444 B1	20020531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 12 Payment date: 20020531 Country of Ref document: DK
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EP0593444 B1	20020603	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 12 Payment date: 20020603 Country of Ref document: BE
EP0593444 B1	20020606	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 12 Payment date: 20020606 Country of Ref document: LU
EP0593444 B1	20020624	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20020624 Year of fee payment: 12 Country of Ref document: ES
EP0593444 B1	20020710	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	Ref country code: EP Effective date: 20011119
EP0593444 B1	20020715	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: PL Ref country code: CH
EP0593444 B1	20020715	LSRE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Text: DAS PATENT IST AUFGRUND

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EP0593444 B1	20020730	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20020730 Country of Ref document: FR
EP0593444 B1	20020830	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: FR Ref legal event code: ST
EP0593444 B1	20020906	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: FR Ref legal event code: ST
EP0593444 B1	20021119	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20021119 Country of Ref document: LU
EP0593444 B1	20021120	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20021120 Country of Ref document: ES
EP0593444 B1	20021126	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20021126 Year of fee payment: 13 Country of Ref document: CH
EP0593444 B1	20021130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20021130 Country of Ref document: BE
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EP0593444 B1	20030531	LSLE	-BERE	BE: LAPSED	PartyType: owner Ref country code: EP Owner: *ANDERSSON CURT Effective date: 20021130
EP0593444 B1	20030601	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20030601 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: NL
EP0593444 B1	20030603	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20030603 Country of Ref document: DE
EP0593444 B1	20030707	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: DK Ref legal event code: EBP
EP0593444 B1	20030801	LSLE	-NLV4	NL: LAPSED OR ANULLED DUE TO NON-PAYMENT OF THE ANNUAL FEE	Effective date: 20030601 Ref country code: EP
EP0593444 B1	20031130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20031130 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: CH
EP0593444 B1	20031130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20031130 Country of Ref document: LI
EP0593444 B1	20040401	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: ES Ref legal event code: FD2A Effective date: 20031213
EP0593444 B1	20040715	LSLE	REG	REFERENCE TO A	Ref country code: CH

				NATIONAL CODE	Ref legal event code: PL
EP0593444 B1	20051119	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20051119 Country of Ref document: IT
EP0593444 B1	20051119	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES;WARNING: LAPSES OF ITALIAN PATENTS WITH EFFECTIVE DATE BEFORE 2007 MAY HAVE OCCURRED AT ANY TIME BEFORE 2007. THE CORRECT EFFECTIVE DATE MAY BE DIFFERENT FROM THE ONE RECORDED. Lapsed date: 20051119 Country of Ref document: IT
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ES2102369 T3	19970801	LSGT	+	granted / extensions (spc, cpc, pte)	
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JP5504520 T2	19930715	LSPB	+	published / reissued	
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SE468278 B	20030701	LSLE	-NUG	PATENT HAS LAPSED	
SE468278 C	19930513	LSGT	+	granted / extensions (spc, cpc, pte)	
SE468278 C	20091121	PEXP		Calculated Patent Term Expiry	
US5413745 A	19950509	LSGT	+	granted / extensions (spc, cpc, pte)	
US5413745 A	19981104	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
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US5413745 A	20030509	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5413745 A	20030611	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5413745 A	20030611	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5413745 A	20030708	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20030509
US5413745 A	20120721	PEXP		Calculated Patent Term Expiry	
WO9107270 A1	19910530	LSPB	+	published / reissued	
WO9107270 A1	19910530		+AK	DESIGNATED STATES	Kind code of Ref document: A1 Country of Ref document: AT AU BB BG BR CA CH DE DK ES FI GB HU JP KP KR LK LU MC MG MW NL NO RO SD SE SU US
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WO9107270 A1	19920518	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 1990917422 Country of Ref document: EP
WO9107270 A1	19920520	LSNP	+WWE	WIPO	Ref document number: 2069091

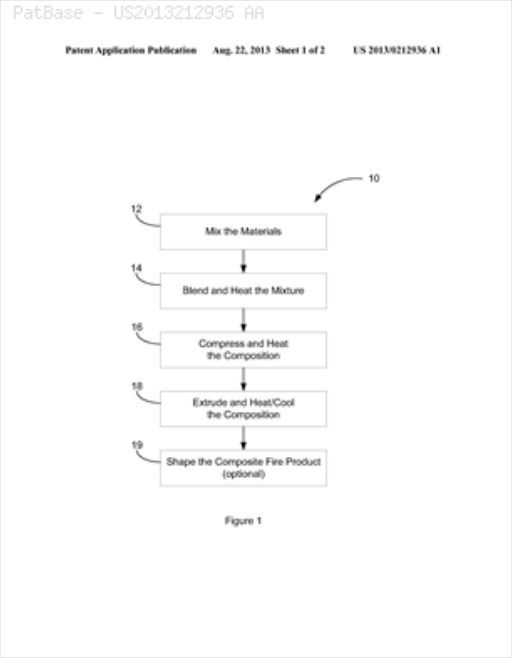
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WO9107270 A1	19970409	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	Ref document number: 1990917422 Country of Ref document: EP

7) Family number: 54569356 (US2013212936 AA)

Title: PROCESS AND APPARATUS FOR **MANUFACTURING** A COMPOSITE FIRE PRODUCT AND PRODUCT RESULTING THEREFROM

Abstract: A method of **manufacturing** a composite fire product comprising mixing materials, that include wax, at least one dry material and at least one non-dry material with a moisture content of at least 15 percent, blending and heating the mixed materials, **compressing** and heating the blended mixture, the **compression** pressure being at least 500 psi and the temperature being at least 100 F, and **extruding** the **compressed** mixture to form the composite fire product.

Classifications:
International (IPC 8-9): C10L5/44
CPC: C10L5/14 C10L5/143 C10L5/146 C10L5/44 C10L5/442 C10L5/445 Y02E50/10 Y02E50/30
US: 44/576 44/635



Family:

Publication number	Publication date	Application number	Application date
US2013212936 AA	20130822	US20120397878	20120216

Priority:
US20120397878 20120216

Probable Assignee: WHITE GREGORY LEE
Assignee(s): (std): WHITE GREGORY LEE
Inventor(s): (std): WHITE GREGORY LEE

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
US2013212936 AA	20130822	LSPB	+	published / reissued	
US2013212936 AA	20140615	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2013212936 AA	20140615		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION

8) Family number: 48342010 (WO11020190 A1)

Title: PROCESS AND APPARATUS FOR **MANUFACTURING** A COMPOSITE FIRE PRODUCT AND PRODUCT RESULTING THEREFROM

Abstract: A method of **manufacturing** a composite fire product comprising mixing materials, that include wax, at least one dry material and at least one non-dry material with a moisture content of at least 15 percent, blending and heating the mixed materials, **compressing** and heating the blended mixture, the **compression** pressure being at least 500 psi and the temperature being at least 100 F, and **extruding** the **compressed** mixture to form the composite fire product.

Classifications:
International (IPC 8-9): B27N3/12 B32B29/02 C10L5/44 D21H27/30
CPC: Y02E50/10 Y02E50/30

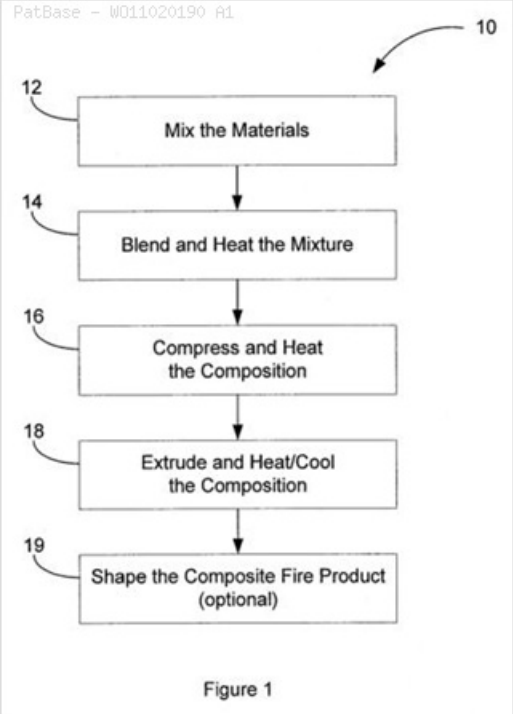


Figure 1

Family:

Publication number	Publication date	Application number	Application date
CA2774042 AA	20110224	CA20102774042	20100818
WO11020190 A1	20110224	WO2010CA01277	20100818

Priority:
US20090272127P 20090819 WO2010CA01277 20100818

Probable Assignee: BIOMASS STRATEGIES INC

Assignee(s): (std): BIOMASS STRATEGIES INC ; WHITE GREGORY LEE

Inventor(s): (std): WHITE GREGORY LEE

Agent(s): BCF LLP; VOULOUMANOS TOM ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
CA2774042 AA	20110224	LSPB	+	published / reissued	
CA2774042 AA	20160929	LSLE	-FZDE	DEAD	Effective date: 20160818
WO11020190 A1	20110224	LSPB	+	published / reissued	
WO11020190 A1	20110413		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Kind code of Ref document: A1 Ref document number: 10809404 Country of Ref document: EP
WO11020190 A1	20120216	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2774042 Country of Ref document: CA

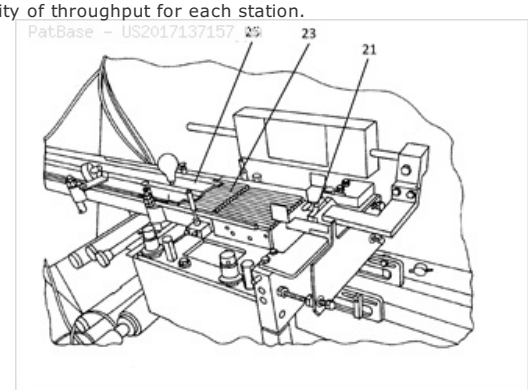
WO11020190 A1	20120220	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO11020190 A1	20120912	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	Kind code of Ref document: A1 Ref document number: 10809404 Country of Ref document: EP

9) Family number: 65691426 (US2017137157 AA)

Title: SERVO DRIVEN ICE CREAM SANDWICH ASSEMBLY AND WRAPPING MACHINE

Abstract: An apparatus for the preparation of comestible-containing sandwich products comprises a sandwich product assembly station and corresponding means for the fabrication and assembly of a sandwich product in the vertical direction. The apparatus includes an **extruder** nozzle, wafer trays and corresponding components for the location of wafers on opposite sides of the **extruded** product, an indexing wheel for receiving the assembled sandwich product, and conveying means for conveying to a wrapping assembly and from there to a discharge end, wherein all of the components of the apparatus are mounted in cantilevered fashion on a vertical support or base member. Each element is powered individually by a servo motor and controlled by a controller allowing the variability of throughput for each station.

Classifications:
International (IPC 8-9): A23G9/04 A23G9/14 A23G9/22 A23G9/24 A23G9/28 A23G9/48 A23P20/00 B65B11/02 B65B11/08 B65B11/54 B65B25/00 B65B35/20 B65B41/12 B65B49/08 B65B51/10 B65B57/00 B65B59/00 B65B65/02 B65D85/78
CPC: A23G9/24 A23G9/286 B65B11/02 B65B11/08 B65B25/007 B65B35/20 B65B41/12 B65B51/10 B65B57/00 B65B59/00 B65B59/001 B65B65/02 A23G9/22 A23G9/28 B65B11/20 B65B2051/105 B65B49/08 B65B59/04 B65H23/1825 B65H23/185 B65H2511/112 B65H2511/142 B65H2513/11 B65H2515/31 B65H2553/212 B65H2553/30 B65H2555/24
US: 1/1 99/450.4



Family:

Publication number	Publication date	Application number	Application date
CA2948973 AA	20170518	CA20162948973	20161118
CA3046900 AA	20191218	CA20193046900	20190618
US10730649 BB	20200804	US20160355619	20161118
US2017137157 AA	20170518	US20160355619	20161118
US2019380359 AA	20191219	US20190444712	20190618

Priority:
US20150256783P 20151118 US20160355619 20161118 US20180686395P 20180618 US20190444712 20190618

Probable Assignee: NORSE DAIRY SYSTEMS LLC
Assignee(s): (std): NORSE DAIRY SYSTEMS LLC
Assignee(s): CRAWFORD JEFF ; IRWIN JEFF ; MARTIN CHRIS
Inventor(s): (std): CRAWFORD JEFF ; IRWIN JEFF ; MARTIN CHRIS
Agent(s): DROSTE TYLER B; GUTWEIN LAW; TORYS LLP

Legal status (INPADOC)

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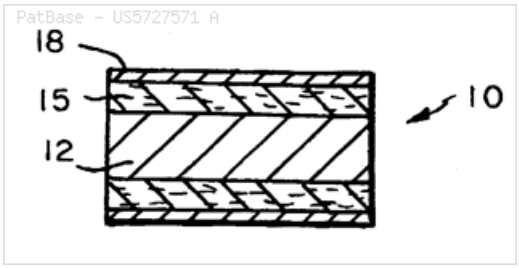
Patent	Date recorded	Event group	Code	Event	Details
CA2948973 AA	20170518	LSPB	+	published / reissued	
CA2948973 AA	20200127	LSES	+EEER	EXAMINATION REQUEST	Effective date: 20200110
CA3046900 AA	20191218	LSPB	+	published / reissued	
US10730649 BB	20200804	LSGT	+	granted / extensions (spc, cpc, pte)	
US10730649 BB	20381112	PEXP		Calculated Patent Term Expiry (PTA 724 days)	
US2017137157 AA	20161206	LSAS	AS	ASSIGNMENT	Effective date: 20161024 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:CRAWFORD, JEFF;IRWIN, JEFF;REEL/FRAME:040532/0868 Owner: NORSE DAIRY SYSTEMS, LLC, OHIO PartyType: owner
US2017137157 AA	20170213		RFE1	Docketed New Case - Ready for Examination	
US2017137157 AA	20170213		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: DOCKETED NEW CASE - READY FOR EXAMINATION
US2017137157 AA	20170518	LSPB	+	published / reissued	

US2017137157 AA	20190625	LSES	NFA1	Non Final Action Mailed	
US2017137157 AA	20190625		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: NON FINAL ACTION MAILED
US2017137157 AA	20191206		RSP4	Response to Non-Final Office Action Entered and Forwarded to Examiner	
US2017137157 AA	20191206		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: RESPONSE TO NON-FINAL OFFICE ACTION ENTERED AND FORWARDED TO EXAMINER
US2017137157 AA	20200325	LSES	NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017137157 AA	20200325		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: NOTICE OF ALLOWANCE MAILED -- APPLICATION RECEIVED IN OFFICE OF PUBLICATIONS
US2017137157 AA	20200702	LSFE	PPV1	Publications -- Issue Fee Payment Verified	
US2017137157 AA	20200702		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: PUBLICATIONS -- ISSUE FEE PAYMENT VERIFIED
US2017137157 AA	20200715	LSGT	PAT1	Patented Case	
US2017137157 AA	20200715	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2019380359 AA	20190618	LSAS	AS	ASSIGNMENT	Effective date: 20190617 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:IRWIN, JEFF;CRAWFORD, JEFF;MARTIN, CHRIS;REEL/FRAME:049506/0706 Owner: NORSE DAIRY SYSTEMS, LLC, OHIO PartyType: owner
US2019380359 AA	20190909		RFE1	Docketed New Case - Ready for Examination	
US2019380359 AA	20190909		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: DOCKETED NEW CASE - READY FOR EXAMINATION
US2019380359 AA	20191219	LSPB	+	published / reissued	

10) Family number: 10697698 (US5727571 A)

Title: COMPONENTS FOR SMOKING ARTICLES AND PROCESS FOR MAKING SAME

Abstract: Disclosed are new fuel components for smoking articles such as cigarettes, new methods of making such fuel components, and cigarettes or other smoking articles incorporating the new fuel components. Fuel components for smoking articles are formed by continuously **extruding** a composition to form a preselected shape, circumscribing the continuously **extruded** composition with a layer of material to form a wrapped rod or composite member, preferably bonding the fuel element to the layer of material, and cutting the resulting composite member into predetermined lengths for use in assembling smoking articles.



Classifications:
International (IPC 8-9): A24B15/00 A24B15/16 A24B3/00 A24C5/00 A24C5/14 A24C5/18 A24D1/00 A24D1/04 A24D1/18 A24F40/10 A24F47/00 B29C47/92 B29C48/92 F28D15/02 F28D15/04 H01L23/34 H01L23/427
International (IPC 1-7): A24B15/00 A24B15/16 A24B15/18 A24B15/28 A24B3/04 A24B3/14 A24C5/00 A24C5/02 A24C5/18 A24D1/00 A24D1/02 A24D1/04 A24D1/08 A24D1/18 A24F47/00
CPC: A24B15/165 A24D1/22 B29C2948/92085 B29C2948/92438 B29C2948/9258 B29C2948/9259 B29C2948/926 B29C2948/92638 B29C2948/92933 B29C48/92 A24F47/004
US: 131/194 131/280 131/359 131/360

Family:

Publication number	Publication date	Application number	Application date
AT180629 E	19990615	AT19930104516T	19930319
AU199335501 A1	19930930	AU19930035501	19930324
AU664733 B2	19951130	AU19930035501	19930324
BG61211 B1	19970331	BG19930097577	19930324
BG97577 A	19940527	BG19930097577	19930324
BRPI9301251 A	19930928	BR1993PI01251	19930322
CA2090918 AA	19930926	CA19932090918	19930303
CA2090918 C	20060117	CA19932090918	19930303
CA2466075 AA	19930926	CA19932466075	19930303
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CZ9300438 A3	19931117	CZ19930000438	19930318
DE69325121 D1	19990708	DE19936025121T	19930319
DE69325121 T2	19991028	DE19936025121T	19930319
DK0562474 T3	19991129	DK19930104516T	19930319
ECSP930918 A	19940209	EC19930000918	19930324
EG19960 A	19961031	EG19930000171	19930320
EP0562474 A2	19930929	EP19930104516	19930319
EP0562474 A3	19931208	EP19930104516	19930319
EP0562474 B1	19990602	EP19930104516	19930319
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FI931328 A	19930926	FI19930001328	19930325
FI931328 A0	19930325	FI19930001328	19930325
FI97942 B	19961213	FI19930001328	19930325
FI97942 C	19970325	FI19930001328	19930325
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HR930490 B1	20000229	HR19930000490	19930324
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JP3472591 B2	20031202	JP19930080245	19930316
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KR100269437 B1	20001016	KR19930004759	19930324
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RU2097997 C1	19971210	RU19930005365	19930323
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SI9300148 A	19930930	SI19930000148	19930325
SI9300148 B	20011231	SI19930000148	19930325

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TW235906 B	19941211	TW19930101879	19930315
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US5727571 A	19980317	US19940306929	19940915
ZA9301675 A	20041229	ZA19930001675	19930309

Priority:

US19920856239 19920325 CA19932090918 19930303 CA19932466075 19930303
CA19932527939 19930303 US19940306929 19940915

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Agent(s): ASPEN PHARMA PTY LTD; BERESKIN AND PARR; BERESKIN AND PARR LLP SENCRL SRL; EDUARDO POMBO URIBE; REINHOLD COHN AND PARTNERS; SPRUSON AND FERGUSON

Designated states: AT BE CH DE DK ES FR GB GR IE IT LI LU NL PT SE

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT180629 E	19990615	LSGT	+	granted / extensions (spc, cpc, pte)	
AT180629 E	20000215	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	
AT180629 E	20011115	LSAS	EEIH	CHANGE IN THE PERSON OF PATENT OWNER	
AT180629 E	20130319	PEXP		Calculated Patent Term Expiry	
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AU664733 B2	19951130	LSGT	+	granted / extensions (spc, cpc, pte)	
AU664733 B2	20130324	PEXP		Calculated Patent Term Expiry	
BG61211 B1	19970331	LSGT	+	granted / extensions (spc, cpc, pte)	
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BG97577 A	19940527	LSPB	+	published / reissued	
BRPI9301251 A	19930928	LSPB	+	published / reissued	
BRPI9301251 A	19951128	LSES	+EE	REQUEST FOR EXAMINATION	
BRPI9301251 A	19990427		-FB36	TECHNICAL AND FORMAL REQUIREMENTS: REQUIREMENT - ARTICLE 36 OF INDUSTRIAL PROPERTY LAW	
BRPI9301251 A	19991103	LSGT	+FF	DECISION: INTENTION TO GRANT	
BRPI9301251 A	20000516	LSGT	+FG9A	PATENT OR CERTIFICATE OF ADDITION GRANTED	

BRPI9301251 A	20010206	LSAS	PCP	TRANSFER PENDING	
BRPI9301251 A	20010626	LSAS	PC	TRANSFER	Text: JAPAN TOBACCO INC (JP)
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CA2090918 AA	19930926	LSPB	+	published / reissued	
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CN1052390 C	20130320	PEXP		Calculated Patent Term Expiry	
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CN1077360 A	19931020	LSPB	+	published / reissued	
CN1077360 A	19931020	LSPB	+C06	PUBLICATION	
CN1077360 A	19950712		C10	ENTRY INTO SUBSTANTIVE EXAMINATION	
CN1077360 A	20000216	LSRE	C53	CORRECTION OF PATENT FOR INVENTION OR PATENT APPLICATION	
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CO4130167 A1	19950213	LSPB	+	published / reissued	
CZ291345 B6	20030212	LSGT	+	granted / extensions (spc, cpc, pte)	
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DE69325121 D1	20130319	LSLE	-R071	EXPIRY OF RIGHT	
DE69325121 T2	19991028	LSGT	+	granted / extensions (spc, cpc, pte)	
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DK0562474 T3	19991129	LSGT	+	granted / extensions (spc, cpc, pte)	

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EG19960 A	19961031	LSGT	+	granted / extensions (spc, cpc, pte)	
EG19960 A	20130320	PEXP		Calculated Patent Term Expiry	
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EP0562474 A2	19930929		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A2 Country of Ref document: AT BE CH DE DK ES FR GB GR IE IT LI LU NL PT SE
EP0562474 A3	19931208		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A3 Country of Ref document: AT BE CH DE DK ES FR GB GR IE IT LI LU NL PT SE
EP0562474 A3	19940706	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 19940506
EP0562474 A3	19951213	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 19951031
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EP0562474 B1	19990602		REF	CORRESPONDS TO:	Kind code of Ref document: T Ref document number: 180629 Date of Ref document: 19990615 Country of Ref document: AT
EP0562474 B1	19990615	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: EP Ref country code: CH
EP0562474 B1	19990708		REF	CORRESPONDS TO:	Ref document number: 69325121 Date of Ref document: 19990708 Country of Ref document: DE
EP0562474 B1	19990715		REG	REFERENCE TO A NATIONAL CODE	PartyType: representative Ref country code: CH Ref legal event code: NV Representative: ISLER & PEDRAZZINI AG
EP0562474 B1	19990728	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: FG4D Ref country code: IE
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EP0562474 B1	19991129		REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: T3 Ref country code: DK
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EP0562474 B1	20000426	LSAS	RAP2	PARTY DATA CHANGED (PATENT OWNER DATA CHANGED OR RIGHTS OF A PATENT TRANSFERRED)	Owner: JAPAN TOBACCO INC. PartyType: owner
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EP0562474 B1	20000615	LSAS	REG	REFERENCE TO A NATIONAL CODE	PartyType: owner Ref legal event code: PUE Ref country code: CH Owner: R.J. REYNOLDS TOBACCO COMPANY TRANSFER- JAPAN TOBA
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EP0562474 B1	20130320	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: DE Ref legal event code: R071 Ref document number: 69325121 Country of Ref document: DE
EP0562474 B1	20130325	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: EUP Ref country code: DK
EP0562474 B1	20130326	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: PT Text: MAXIMUM VALIDITY LIMIT REACHED Ref legal event code: MM4A Effective date: 20130319
EP0562474 B1	20130327	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: NL Ref legal event code: V4

					Effective date: 20130319
EP0562474 B1	20130328	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: PL Ref country code: CH
EP0562474 B1	20130329	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20120327 Year of fee payment: 20 Country of Ref document: AT
EP0562474 B1	20130331	LSLE	-BE20	BE: PATENT EXPIRED	Owner: *JAPAN TOBACCO INC. Ref country code: EP PartyType: owner Effective date: 20130319
EP0562474 B1	20130410	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: GB Ref legal event code: PE20 Expiry date: 20130318
EP0562474 B1	20130430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20130318 NotificationOfLapse: LAPSE BECAUSE OF EXPIRATION OF PROTECTION Country of Ref document: GB
EP0562474 B1	20130430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20130320 NotificationOfLapse: LAPSE BECAUSE OF EXPIRATION OF PROTECTION Country of Ref document: DE
EP0562474 B1	20130430	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: SE Ref legal event code: EUG
EP0562474 B1	20130515	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: AT Ref document number: 180629 Ref legal event code: MK07 Kind code of Ref document: T Effective date: 20130319 Country of Ref document: AT
EP0562474 B1	20130520	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: MA Effective date: 20130320 Ref country code: GR Ref document number: 990401992 Country of Ref document: GR
EP0562474 B1	20130531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20130326 NotificationOfLapse: LAPSE BECAUSE OF EXPIRATION OF PROTECTION Country of Ref document: PT
EP0562474 B1	20130628	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20120301 Year of fee payment: 20 Country of Ref document: ES
EP0562474 B1	20130702	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: ES Ref legal event code: FD2A Effective date: 20130702
EP0562474 B1	20130731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF EXPIRATION OF PROTECTION Lapsed date: 20130320 Country of Ref document: ES
EP0562474 B1	20140131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF EXPIRATION OF PROTECTION Lapsed date: 20130319 Country of Ref document: IE
ES2133338 T3	19990916	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2133338 T3	19990916	LSGT	+FG2A	DEFINITIVE PROTECTION	Ref document number: 562474 Country of Ref document: ES
ES2133338 T3	20130319	PEXP		Calculated Patent Term Expiry	
FI931328 A	19930926	LSPB	+	published / reissued	
FI931328 A	19961118	LSPB	BB	PUBLICATION OF EXAMINED APPLICATION	
FI97942 B	19961213	LSPB	+	published / reissued	
FI97942 B	20130325	PEXP		Calculated Patent Term Expiry	
FI97942 C	19970325	LSGT	+	granted / extensions (spc, cpc, pte)	

FI97942 C	20130325	PEXP		Calculated Patent Term Expiry	
FI97942 C	20130410	LSLE	-MA	PATENT EXPIRED	
GR3030911 T3	19991130	LSGT	+	granted / extensions (spc, cpc, pte)	
GR3030911 T3	20190802	PEXP		Calculated Patent Term Expiry	
HR930490 A2	19960430	LSPB	+	published / reissued	
HR930490 B1	20000229	LSGT	+	granted / extensions (spc, cpc, pte)	
HR930490 B1	20130324	PEXP		Calculated Patent Term Expiry	
HU214253 B	19980302	LSGT	+	granted / extensions (spc, cpc, pte)	
HU214253 B	19991228		HPC4	SUCCESSION IN TITLE OF PATENTEE	Owner: JAPAN TOBACCO INC., JP PartyType: owner
HU214253 B	20130324	PEXP		Calculated Patent Term Expiry	
HU68369 A2	19950628	LSPB	+	published / reissued	
IL104930 A1	19951231	LSPB	+	published / reissued	
IL104930 A1	19960618	LSGT	+FF	PATENT GRANTED	
IL104930 A1	19990817	LSFE	+KB	PATENT RENEWED	
IL104930 A1	20010430	LSAS	HP	CHANGE IN PROPRIETORSHIP	
IL104930 A1	20030529	LSFE	+KB	PATENT RENEWED	
IL104930 A1	20070617	LSFE	+KB	PATENT RENEWED	
IL104930 A1	20110228	LSFE	+KB	PATENT RENEWED	
IL104930 A1	20131031	LSLE	-EXP	PATENT EXPIRED	
JP3472591 B2	20031202	LSGT	+	granted / extensions (spc, cpc, pte)	
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JP3472591 B2	20130316	PEXP		Calculated Patent Term Expiry	
JP6007139 A2	19940118	LSPB	+	published / reissued	
KR100269437 B1	19980320	LSES	A201	REQUEST FOR EXAMINATION	
KR100269437 B1	19991019	LSAS	N231	NOTIFICATION OF CHANGE OF APPLICANT	
KR100269437 B1	20000324	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR100269437 B1	20000623	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR100269437 B1	20000720	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR100269437 B1	20001016	LSGT	+	granted / extensions (spc, cpc, pte)	
KR100269437 B1	20120611	LSFE	FPAY	ANNUAL FEE PAYMENT	Year of fee payment: 13 Payment date: 20120612
KR100269437 B1	20130325	LSLE	-EXPY	EXPIRATION OF TERM	
KR100269437 B1	20151016	PEXP		Calculated Patent Term Expiry	
KR19930019151 A	19931018	LSPB	+	published / reissued	
KR930019151 A	19931018	LSPB	+	published / reissued	
MX9301485 A1	19930901	LSPB	+	published / reissued	
NO177882 B	19950904	LSPB	+	published / reissued	
NO177882 C	19951213	LSGT	+	granted / extensions (spc, cpc, pte)	
NO177882 C	20130324	PEXP		Calculated Patent Term Expiry	
NO177882 C	20130415	LSLE	-MK1K	PATENT EXPIRED	
NO931087 A	19930927	LSPB	+	published / reissued	
PL171236 B1	19970328	LSGT	+	granted / extensions (spc, cpc, pte)	

PL298219 A1	19931213	LSPB	+	published / reissued	
RO110195 B1	19951130	LSGT	+	granted / extensions (spc, cpc, pte)	
RO110195 B1	20130322	PEXP		Calculated Patent Term Expiry	
RU2097997 C1	19971210	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2097997 C1	20130323	PEXP		Calculated Patent Term Expiry	
RU93005365 A	19950619	LSPB	+	published / reissued	
SI9300148 A	19930930	LSGT	+	granted / extensions (spc, cpc, pte)	
SI9300148 A	20130325	PEXP		Calculated Patent Term Expiry	
SI9300148 B	20050110		+IF	VALID ON THE EVENT DATE	
SK22993 A3	19931006	LSPB	+	published / reissued	
SK281464 B6	20010409	LSGT	+	granted / extensions (spc, cpc, pte)	
SK281464 B6	20130322	PEXP		Calculated Patent Term Expiry	
SK281464 B6	20130503	LSLE	-MK4A	EXPIRY OF PATENT	Expiry date: 20130322
TW235906 B	19941211	LSGT	+	granted / extensions (spc, cpc, pte)	
TW235906 B	20130315	PEXP		Calculated Patent Term Expiry	
TW235906 B	20130421	LSLE	-MK4A	EXPIRATION OF PATENT TERM OF AN INVENTION PATENT	
UA35570 C2	20010416	LSGT	+	granted / extensions (spc, cpc, pte)	
UA35570 C2	20130414	PEXP		Calculated Patent Term Expiry	
US5727571 A	19980317	LSGT	+	granted / extensions (spc, cpc, pte)	
US5727571 A	20010723	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5727571 A	20030922	LSAS	AS	ASSIGNMENT	Effective date: 20030709 OldParty: SECURITY AGREEMENT;ASSIGNOR:R.J. REYNOLDS TOBACCO;REEL/FRAME:014499/0517 Owner: JP MORGAN CHASE BANK, NEW YORK PartyType: owner
US5727571 A	20050425	LSAS	AS	ASSIGNMENT	Owner: R. J. REYNOLDS TOBACCO COMPANY, NORTH CAROLINA OldParty: CHANGE OF NAME;ASSIGNOR:BROWN & WILLIAMSON U.S.A., INC.;REEL/FRAME:015931/0908 Effective date: 20040730 PartyType: owner
US5727571 A	20050425	LSAS	AS	ASSIGNMENT	PartyType: owner Effective date: 20040730 OldParty: MERGER;ASSIGNORS:BROWN & WILLIAMSON U.S.A., INC.;R. J. REYNOLDS TOBACCO COMPANY;REEL/FRAME:015931/0857 Owner: R. J. REYNOLDS TOBACCO COMPANY, NORTH CAROLINA
US5727571 A	20050829	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US5727571 A	20060628	LSAS	AS	ASSIGNMENT	Effective date: 20060526 PartyType: owner OldParty: SECURITY INTEREST;ASSIGNOR:R.J. REYNOLDS TOBACCO COMPANY;REEL/FRAME:017906/0671 Owner: JPMORGAN CHASE BANK, N.A., AS COLLATERAL AGENT, NE
US5727571 A	20060628	LSAS	AS	ASSIGNMENT	PartyType: owner Effective date: 20060526 OldParty: SECURITY INTEREST;ASSIGNOR:R.J. REYNOLDS TOBACCO COMPANY;REEL/FRAME:017906/0671 Owner: JPMORGAN CHASE BANK, N.A., AS COLLATERAL AGENT,NEW
US5727571 A	20091019		REMI	MAINTENANCE FEE REMINDER MAILED	
US5727571 A	20100317	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	

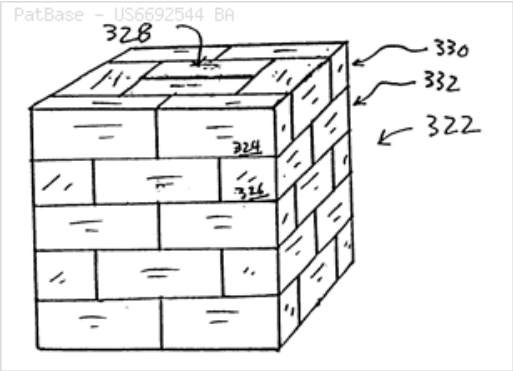
US5727571 A	20100412	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5727571 A	20100412	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5727571 A	20100504	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20100317
US5727571 A	20150317	PEXP		Calculated Patent Term Expiry	
ZA9301675 A	19931006	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA9301675 A	20130308	PEXP		Calculated Patent Term Expiry	

11) Family number: 30306963 (US6692544 BA)

Title: MUNICIPAL WASTE BRIQUETTING SYSTEM AND METHOD OF FILLING LAND

Abstract: Mechanically and biologically stable briquettes and pellets are obtained from either municipal solid waste (MSW), Refuse Derived Fuel (RDF) or municipal sewage sludge and their combination for purposes of disposing said briquettes and pellets as fuel in waste-to-energy processes such as the one described herein or to form geometric aggregates with such briquettes for their disposal at landfill sites. The use of binding material is not required whereas fuel additives such as crushed coal and petroleum residues may be added to enhance fuel performance but are not needed to improve waste processing or product stability and mechanical properties.

Classifications:
International (IPC 8-9): C10L5/40 C10L5/46
International (IPC 1-7): C10L5/00
CPC: C10L5/361 C10L5/363 C10L5/46 Y02E50/10 Y02E50/30
US: 428/2 44/589 44/590 44/593 44/595 44/605 44/606 44/634 44/635



Family:

Publication number	Publication date	Application number	Application date
US6692544 BA	20040217	US20010833091	20010411

Priority:

US20000196857P 20000412 US20010833091 20010411

Probable Assignee: ECOSYSTEM PROJECTS LLC
Assignee(s): (std): ECOSYSTEMS PROJECTS LLC
Assignee(s): ECOSYSTEM PROJECTS LLC
Inventor(s): (std): GRILLENZONI MAURO
Inventor(s): MAURO GRILLENZONI
Agent(s): CHERYL H AGRIS

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US6692544 BA	20010730	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:GRILLENZONI, MAURO;REEL/FRAME:012028/0607 Owner: ECOSYSTEMS PROJECTS, LLC, CONNECTICUT PartyType: owner Effective date: 20010726
US6692544 BA	20040211	LSAS	AS	ASSIGNMENT	Owner: ECOSYSTEM PROJECTS LLC, NEW YORK PartyType: owner Effective date: 20010726 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:GRILLENZONI, MAURO;REEL/FRAME:014336/0484
US6692544 BA	20040217	LSGT	+	granted / extensions (spc, cpc, pte)	
US6692544 BA	20070816	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US6692544 BA	20111003		REMI	MAINTENANCE FEE REMINDER MAILED	
US6692544 BA	20120217	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6692544 BA	20120217	LSRE	+REIN	REINSTATEMENT AFTER MAINTENANCE FEE PAYMENT CONFIRMED	
US6692544 BA	20120410	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20120217
US6692544 BA	20130318	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US6692544 BA	20130318		+SULP	SURCHARGE FOR LATE PAYMENT	
US6692544 BA	20130429	LSRE	+PRDP	PATENT REINSTATED DUE TO THE	Effective date: 20130503

				ACCEPTANCE OF A LATE MAINTENANCE FEE	
US6692544 BA	20130503	LSGT	PAT1	Patented Case	
US6692544 BA	20150925		REMI	MAINTENANCE FEE REMINDER MAILED	
US6692544 BA	20160217	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6692544 BA	20160314	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6692544 BA	20160314	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6692544 BA	20160405	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20160217
US6692544 BA	20200610	PEXP		Calculated Patent Term Expiry (PTA 59 days)	

12) Family number: 19971952 (GB623773 A)

Title: Improvements in or relating to the **manufacture** of reinforced concrete articles by extrusion

Abstract:

36245/46, 37083/46 and 606/47.

[Class 87 (ii)] [Also in Groups X and XXVIII] A reinforcement-**feeding** member is passed rearwardly through the extrusion nozzle, through the extrusion chamber and out through an inlet opening for the reinforcement, and is then attached to the reinforcement.

A pull is then applied to the member to draw the reinforcement into the chamber and out through the nozzle from which the reinforcement emerges embedded in the concrete &c.

Figs.

1 to 4 show a machine comprising a drum 53 which is rotated to pull wire 30 through the extrusion chamber 1.

At its rear end the chamber is closed by rubber flaps 48, 50, which allow entry of reinforcement.

The wire is attached to several hair-pin-like reinforcements 46 or, as shown, to the leading reinforcement which is attached by a short wire 30a to the next reinforcement.

The speed of the drum 53 is coordinated with the operation of the **screws** 4, 5, which **feed** the chamber 1 with concrete.

The wire is centred by an adjustable guide 55.

Fig.

3 is a sectional plan view of the extrusion nozzle 13, which is initially closed by a verticallyreciprocable shutter 14 having a slot 29 therein for the reception of the wire 30.

In operation, with this shutter closed, concrete is fed into the extrusion chamber until the pressure therein reaches a certain level.

which may be indicated by a gauge 43.

The shutter is then raised quickly, and the column of concrete emerges.

As it emerges it may be shaped, e.g.

tapered to form a tapered fencing post, by means of horizontally-reciprocable jaws 15, 16.

The discharged articles are received on a conveyer 56.

When the desired length of article has been produced it is cut off by closing the shutter 14 or by means of a separate shear.

The operation of the machine is then continued with the shutter closed, pressure building up until the shutter is again raised to form another article.

When the space between the nozzle and the drum 53 has been filled with articles and part of another article is protruding from the nozzle, the apparatus is stopped, the wire is disconnected from the articles, the reinforcement between the last article and the protruding article is severed, the articles are removed from the conveyer, the wire is connected to the reinforcement of the protruding article, and the operation continued.

The shutter is raised by means of a weight 21 and chain 22 attached thereto, the chain passing over a sprocket 23 which is kept locked, while the shutter is down, by a plunger.

To release the weight, the plunger is withdrawn, whereupon the weight fallsuntil it is arrested by a stop 26.

The plunger may be withdrawn manually or automatically by oil pressure transmitted from the chamber 1 through a pipe 25, a pressure-responsive device being provided on the chamber instead of or in addition to the gauge 43.

The shutter is lowered by turning the sprocket by means of a handle 27.

The shutter has a Ushaped channel 28 that imparts a corresponding shape to the end of the fencing post &c.

being **extruded** To ensure that the shutter returns to its proper closing position on a platform 31 despite trapped concrete, the platform is pivoted at 32 and rests on a spring 33.

The jaws 15, 16 are operated by a cam mechanism or by a shaft 34 having rightand left-hand threads, and may be given a steady movement towards and away from each other or a non-uniform movement or movements.

Concrete is fed into the chamber 1 from a mixer 7 by way of belts 8, 9, vertical towers 11, 12, which may contain **feed screws**, and the **feed screws** 4, 5.

The drive to the **feed screws** 4, 5 may be co-ordinated with the position of the jaws 15, 16, to obtain a constant extrusion **feed**.

Figs.

7 and 10 show a machine modified to **extrude** solid or tubular articles having cage-type .

reinforcements 138.

A cage is supported on a mandrel 133 and its leading end is attached to a wire 115 as in the first machine.

The mandrel is supported at its rear end by a pillar 134 mounted on a slide 135 which moves on rails 137.

The mandrel 133 may incorporate a reciprocating auxiliary concrete-**feeding** plunger, especially when the extrusion chamber is fed by **screws** from the side as in the first machine.

Two or more mandrels may be carried on a hub rotatably mounted on the pillar 134.

The **feed screw** 102 is hollow to receive the mandrel, works in a casing 119 having a hardened steel liner 125 and is fed by a supplementary **screw** 126.

A valve may be provided to prevent escape of concrete between the mandrel and the **screw**.

The concrete is compacted in the chamber 101 and nozzie 103 by eight reciprocating plungers 150, 171 operated by fluid pressure ; these plungers may be covered by rubber diaphragms which are bulged inwardly by the action of the plungers.

The **feed** to the plungers may include a **compressed** -air cushion to minimize shocks.

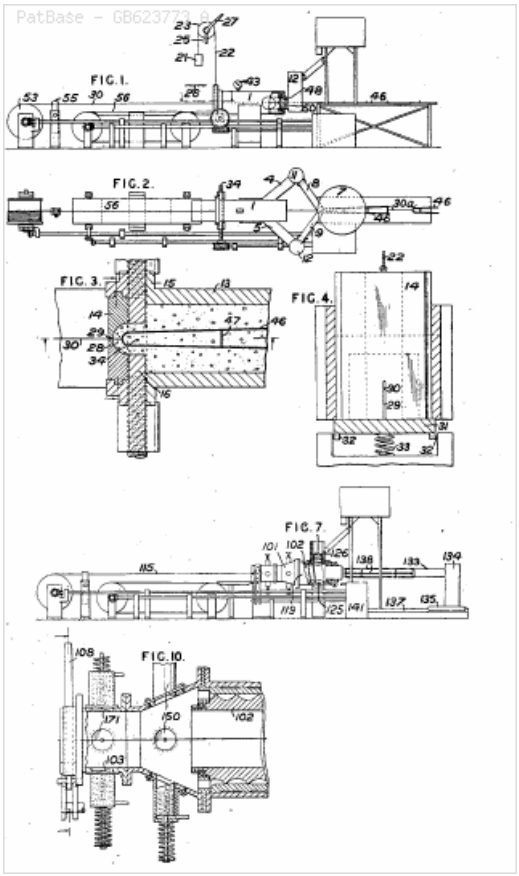
The nozzle is fitted with a horizontally-reciprocable sliding shear or shutter 108 having a slot for the passage of the wire 115; this shutter may be automatically opened, to allow emergence of the concrete, by an increase in oil pressure consequent upon an increase in the resistance to the operation of the plungers 150, 171.

In operation, the mandrei is run forwardly into the **feed screw** until its forward end is near the shutter 108, and during the latter part of its travel the **screws** 102, 126 and plungers 150, 171 are operated to **feed** and compact concrete around the front end of the mandrel and reinforcement.

The shutter is then opened and the extrusion proceeds in normal fashion.

If a tubular article is to be produced, a sleeve 141 of **paper**, waxed **paper**, cardboard, fabric or expanded, perforated or sheet metal is disposed on the mandrel within the cage reinforcement and forms a lining for the article.

Classifications:
International (IPC 8-9)**:** B28B23/02 B28B23/18 B28B3/20 B28B3/26
International (IPC 1-7)**:** B28B23/02
CPC: B28B23/18 B28B3/20 B28B3/26 B28B3/2645



Family:

Publication number	Publication date	Application number	Application date
GB623773 A	19490523	GB19460036245	19461207

Priority:
GB19460036245 19461207

Probable Assignee: EDWARD COPELAND SNELGROVE
Assignee(s): (std)**:** EDWARD COPELAND SNELGROVE

Legal status (INPADOC)

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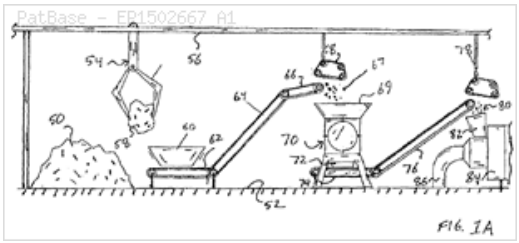
Patent	Date recorded	Event group	Code	Event	Details
GB623773 A	19490523	LSGT	+	granted / extensions (spc, cpc, pte)	
GB623773 A	19661207	PEXP		Calculated Patent Term Expiry	

13) Family number: 31493642 (EP1502667 A1)

Title: MUNICIPAL WASTE BRIQUETTING SYSTEM AND METHOD OF FILLING LAND

Abstract: Mechanically and biologically stable briquettes and pellets are obtained from either municipal solid waste (MSW), Refuse Derived Fuel (RDF) or municipal sewage sludge and their combination for purposes of disposing said briquettes and pellets as fuel in waste-to-energy processes such as the one described herein or to form geometric aggregates with such briquettes for their disposal at landfill sites. The use of binding material is not required whereas fuel additives such as crushed coal and petroleum residues may be added to enhance fuel performance but are not needed to improve waste processing or product stability and mechanical properties.

Classifications:
International (IPC 8-9): B09B1/00 B09B3/00 B30B11/22 B30B11/24 C10L5/40 C10L5/46
International (IPC 1-7): B09B1/00 B09B3/00 C10L5/46
CPC: B09B1/00 B09B3/0025 B30B11/243 C10L5/46 Y02E50/10 Y02E50/30



Family:

Publication number	Publication date	Application number	Application date
EP1502667 A1	20050202	EP20030425511	20030729

Priority:
EP20030425511 20030729

Probable Assignee: ECOENGINEERING IMPIANTI S R L
Assignee(s): (std): ECOENGINEERING IMPIANTI S R L
Inventor(s): (std): GRILLENZONI MAURO
Designated states: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

Legal status (INPADOC)

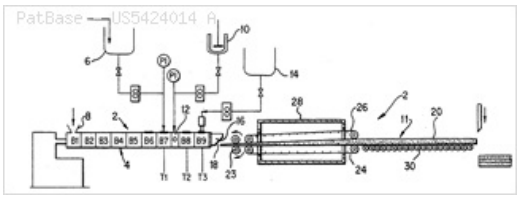
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Patent	Date recorded	Event group	Code	Event	Details
EP1502667 A1	20050202	LSPB	+	published / reissued	
EP1502667 A1	20050202		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR
EP1502667 A1	20050202		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Country of Ref document: AL LT LV MK
EP1502667 A1	20050720	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20050519
EP1502667 A1	20051019	LSFE	+AKX	DESIGNATION FEES PAID	Country of Ref document: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR
EP1502667 A1	20160302	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	Effective date: 20150930

14) Family number: 15819670 (US5424014 A)

Title: METHOD FOR **EXTRUDING** FOAMABLE POLYMER MATERIAL

Abstract: A method for preparing a thermosetting foam, such as polyisocyanurate or polyurethane foam, includes introducing polyol and isocyanate to a **screw** of an **extruder** and mixing in the **extruder** **screw**. Catalyst is then added and mixed with the already formed mixture in the **extruder** **screw**. This mixture is **extruded** onto a **conveyor** and foamed on the **conveyor**. Finely divided carbon black, dispersing agent and/or surfactant may be mixed with polyol before introducing to the **screw** of the **extruder** or carbon black may be dispersed in polyol in the **extruder** and a polyol premix made before the remainder of the polyol is added. Foam cell size is decreased when **extruder** speed is increased. The foaming agent, which is preferably HCFC or water, may be mixed with one of the components, preferably the polyol, before introducing to the **screw** of the **extruder**. The mixture is cooled before **extruding** onto a **conveyor** to delay the foaming step until the mixture is outside the **extruder**. A carbon black dispersion may also be made, for future use. The process described may be used for making foam boards or bunstock.



Classifications:
International (IPC 8-9): B29C44/34 B29C44/50 B29C47/00 B29K105/04 B29K75/00 B29L7/00 C08G101/00 C08G18/00 C08G18/08 C08J9/00 C08J9/02 C08J9/04 C08J9/14 C08K3/00 C08K3/04 C08K3/18 C08K3/34
International (IPC 1-7): B29C4/420 B29C4/450 B29C44/20 B29C44/50 B29C47/00 B29K105/04 B29K75/00 B29L7/00 C08G18/00 C08G18/08 C08J9/00 C08J9/02 C08J9/14 C08K3/04 C08K3/18 C08K3/34
CPC: B29C44/3442 B29C44/505 C08J2201/03 C08J2375/04 C08J9/0066 C08J9/144 Y10S521/917 C08J9/14
US: 264/45.3 264/45.9 264/51 264/53 521/155 521/79 521/917

Family:

Publication number	Publication date	Application number	Application date
AT206443 E	20011015	AT19950907992T	19950106
AU199515989 A1	19960724	AU19950015989	19950106
CA2209563 AA	19970704	CA19952209563	19950106
CA2209563 C	20020625	CA19952209563	19950106
DE69523070 D1	20011108	DE19956023070T	19950106
DE69523070 T2	20020704	DE19956023070T	19950106
EP0801660 A1	19971022	EP19950907992	19950106
EP0801660 A4	19980408	EP19950907992	19950106
EP0801660 B1	20011004	EP19950907992	19950106
ES2164760 T3	20020301	ES19950907992T	19950106
JP10502415 T2	19980303	JP19960520923T	19950106
JP3226927 B2	20011112	JP19960520923T	19950106
MX9704957 A1	19980228	MX19970004957	19950106
US5424014 A	19950613	US19930144621	19931101
US5723506 A	19980303	US19960740779	19961101
USRE37095 E	20010313	US19990303577	19990504
WO9620966 A1	19960711	WO1995US00175	19950106

Priority:

US19920946738 19920918 US19930144621 19931101 WO1995US00175 19950106
US19950369400 19950106 US19960740779 19961101 US19990303577 19990504

Probable Assignee: APACHE PRODUCTS CO

Assignee(s): (std): APACHE PROD CO ; APACHE PRODUCTS CO ; APACHE PRODUCTS CO ANDERS ; APACHE PRODUCTS COMPANY ANDERS

Assignee(s): APACHE PRODUCTS CO (A FLORIDA CORPORATION) ; APACHE PRODUCTS CO A FLORIDA CORP ; APACHE PRODUCTS CO A FLORIDA CORPORATION ; APACHE PRODUCTS CO A OF FLORIDA CORP ; APACHE PRODUCTS CO ANDERSON ; APACHE PRODUCTS CO MERIDIAN ; APACHE PRODUCTS COMPANY ; APACHE PRODUCTS COMPANY ANDERSON ; BURGESS JAMES H ; CIT GROUP CREDIT FINANCE INC ; GLORIOSO SAMMIE J ; IP RIGHTS LLC

Inventor(s): (std): BURGESS H ; BURGESS JAMES H ; GLORIOSO J ; GLORIOSO SAMMIE J

Inventor(s): JAMES H BURGESS ; SAMMIE J GLORIOSO

Agent(s): KIRBY EADES GALE BAKER; VOLPE AND KOENIG PC

Designated states: AM AT AU BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CZ DE DK EE ES FI FR GA GB GE GN GR HU IE IT JP KE KG KP KR KZ LI LK LR LT LU LV MC MD MG ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SI SK SN SZ TD TG TJ TT UA UZ VN

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AT206443 E	20011015	LSGT	+	granted / extensions (spc, cpc, pte)	
AT206443 E	20020415	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT206443 E	20150106	PEXP		Calculated Patent Term Expiry	
AU199515989 A1	19960724	LSPB	+	published / reissued	
CA2209563 AA	19970704	LSPB	+	published / reissued	
CA2209563 AA	19970704	LSES	+EEER	EXAMINATION	

				REQUEST	
CA2209563 C	20020625	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2209563 C	20100106	LSLE	-MKLA	LAPSED	
CA2209563 C	20150106	PEXP		Calculated Patent Term Expiry	
DE69523070 D1	20020516	LSAS	8327	CHANGE IN THE PERSON/NAME/ADDRESS OF THE PATENT OWNER	PartyType: owner Owner: APACHE PRODUCTS COMPANY, ANDERSON, S.C., US
DE69523070 D1	20020516	LSAS	8327	CHANGE IN THE PERSON/NAME/ADDRESS OF THE PATENT OWNER	PartyType: owner Owner: APACHE PRODUCTS COMPANY, ANDERSON, S.C., US
DE69523070 D1	20021031	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69523070 D1	20081120	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE69523070 T2	20020704	LSGT	+	granted / extensions (spc, cpc, pte)	
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DE69523070 T2	20081120	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE69523070 T2	20150106	PEXP		Calculated Patent Term Expiry	
EP0801660 A1	19971022	LSPB	+	published / reissued	
EP0801660 A1	19971022	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 19970630
EP0801660 A1	19971022		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE
EP0801660 A1	19971022		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Text: LT PAYMENT 970630;SI PAYMENT 970630
EP0801660 A1	19980408	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	Effective date: 19980220
EP0801660 A1	19980408		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A4 Country of Ref document: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE
EP0801660 A1	19990811	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 19990629
EP0801660 A1	20011004		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: B1 Country of Ref document: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE
EP0801660 A1	20011004		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Text: LT PAYMENT 19970630;SI PAYMENT 19970630
EP0801660 A1	20011004	LSRV	-LTIE	LT: INVALIDATION OF EUROPEAN PATENT OR PATENT EXTENSION	Ref country code: EP
EP0801660 A1	20011004	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20011004 Country of Ref document: AT
EP0801660 A1	20011004	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20011004 Country of Ref document: CH
EP0801660 A1	20011004	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20011004 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: LI
EP0801660 A1	20011004	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20011004 Country of Ref document: NL
EP0801660 A1	20011004		REF	CORRESPONDS TO:	Ref document number: 206443 Kind code of Ref document: T

					Date of Ref document: 20011015 Country of Ref document: AT
EP0801660 A1	20011015	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: EP
EP0801660 A1	20011108		REF	CORRESPONDS TO:	Ref document number: 69523070 Date of Ref document: 20011108 Country of Ref document: DE
EP0801660 A1	20011114	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: FG4D Ref country code: IE
EP0801660 A1	20011231		BECA	BE: CHANGE OF HOLDER'S ADDRESS	Text: 20011004 *APACHE PRODUCTS CY:P.O. BOX 5287 107 SERVICE ROAD, ANDERSON SC 29623-5287
EP0801660 A1	20020101		REG	REFERENCE TO A NATIONAL CODE	Ref country code: GB Ref legal event code: IF02
EP0801660 A1	20020104	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20020104 Country of Ref document: DK
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EP0801660 A1	20020106	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20020106 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: LU
EP0801660 A1	20020222		+ET	FR: TRANSLATION FILED	
EP0801660 A1	20020227	LSAS	RAP2	PARTY DATA CHANGED (PATENT OWNER DATA CHANGED OR RIGHTS OF A PATENT TRANSFERRED)	PartyType: owner Owner: APACHE PRODUCTS COMPANY
EP0801660 A1	20020301	LSLE	-NLV1	NL: LAPSED OR ANNULLED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT	Ref country code: EP
EP0801660 A1	20020301	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref country code: ES Ref document number: 2164760 Ref legal event code: FG2A Kind code of Ref document: T3 Country of Ref document: ES
EP0801660 A1	20020327		REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: 732E Ref country code: GB
EP0801660 A1	20020415	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: PL Ref country code: CH
EP0801660 A1	20020801	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20020801 Country of Ref document: MC
EP0801660 A1	20020925	LSGT	+26N	NO OPPOSITION FILED	
EP0801660 A1	20070103	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20070103 Year of fee payment: 13 Country of Ref document: GB
EP0801660 A1	20070111	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO	Payment date: 20070111 Year of fee payment: 13 Country of Ref document: DE

				EPO]	
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EP0801660 A1	20070220	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20070220 Year of fee payment: 13 Country of Ref document: ES
EP0801660 A1	20070320	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20070320 Year of fee payment: 13 Country of Ref document: BE
EP0801660 A1	20080102	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 13 Payment date: 20070320 Country of Ref document: BE
EP0801660 A1	20080102	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20070601 Year of fee payment: 13 Country of Ref document: IT
EP0801660 A1	20080430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 13 Payment date: 20070109 Country of Ref document: FR
EP0801660 A1	20080731	LSLE	-BERE	BE: LAPSED	PartyType: owner Effective date: 20080131 Ref country code: EP Owner: *APACHE PRODUCTS COMPANY
EP0801660 A1	20080924	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	Effective date: 20080106 Ref country code: EP
EP0801660 A1	20081029	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: MM4A Ref country code: IE
EP0801660 A1	20081031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20080801 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: DE
EP0801660 A1	20081205	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: ST Ref country code: FR Effective date: 20081029
EP0801660 A1	20081231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20080106 Country of Ref document: GB
EP0801660 A1	20090130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20080107 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: IE
EP0801660 A1	20090227	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20080131 Country of Ref document: BE
EP0801660 A1	20090416	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: FD2A Effective date: 20080108 Ref country code: ES
EP0801660 A1	20090430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20080131 Country of Ref document: FR
EP0801660 A1	20090731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20080108 Country of Ref document: ES
EP0801660 A1	20090831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES

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EP0801660 B1	20011004	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0801660 B1	20150106	PEXP		Calculated Patent Term Expiry	
ES2164760 T3	20020301	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2164760 T3	20020301	LSGT	+FG2A	DEFINITIVE PROTECTION	Ref document number: 801660 Country of Ref document: ES
ES2164760 T3	20150106	PEXP		Calculated Patent Term Expiry	
JP10502415 T2	19980303	LSPB	+	published / reissued	
JP3226927 B2	20011112	LSGT	+	granted / extensions (spc, cpc, pte)	
JP3226927 B2	20040824	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
JP3226927 B2	20050802	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
JP3226927 B2	20060808	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
JP3226927 B2	20070807	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	Year of fee payment: 7
JP3226927 B2	20090310	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	Year of fee payment: 8
JP3226927 B2	20090831	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP3226927 B2	20150106	PEXP		Calculated Patent Term Expiry	
MX9704957 A1	19980228	LSPB	+	published / reissued	
MX9704957 A1	20020603	LSGT	+FG	GRANT OR REGISTRATION	
MX9704957 A1	20041231	LSAS	PD	CHANGE OF PROPRIETORSHIP	Owner: APACHE PRODUCTS COMPANY PartyType: owner
MX9704957 A1	20151130	LSLE	-MM	ANNULMENT OR LAPSE DUE TO NON-PAYMENT OF FEES	
US5424014 A	19950602	LSGT	PAT1	Patented Case	
US5424014 A	19950602	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US5424014 A	19950613	LSGT	+	granted / extensions (spc, cpc, pte)	
US5424014 A	19970611	LSAS	AS	ASSIGNMENT	OldParty: FIRST AMENDMENT TO PATENT SECURITY AGREEMENT;ASSIGNOR:APACHE PRODUCTS COMPANY;REEL/FRAME:008574/0255 Owner: CIT GROUP/CREDIT FINANCE, INC., THE, ILLINOIS Effective date: 19970603 PartyType: owner
US5424014 A	19981207	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5424014 A	19990105		REMI	MAINTENANCE FEE REMINDER MAILED	
US5424014 A	19990222	LSAS	AS	ASSIGNMENT	OldParty: MERGER;ASSIGNOR:APC SUBSIDIARY CORP.;REEL/FRAME:009773/0664 PartyType: owner Effective date: 19961227 Owner: APACHE PRODUCTS COMPANY, SOUTH CAROLINA
US5424014 A	19990706	LSAS	AS	ASSIGNMENT	PartyType: owner Effective date: 19961227 Owner: APACHE PRODUCTS COMPANY, SOUTH CAROLINA OldParty: MERGER & CHANGE OF NAME;ASSIGNOR:APACHE PRODUCTS COMPANY, A FLORIDA CORPORATION;REEL/FRAME:010061/0608
US5424014 A	20021122	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US5424014 A	20041102	LSAS	AS	ASSIGNMENT	Effective date: 20040707

					PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:APACHE PRODUCTS COMPANY;REEL/FRAME:015328/0367 Owner: IP RIGHTS, LLC, ALABAMA
US5424014 A	20041102	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:APACHE PRODUCTS COMPANY;REEL/FRAME:015328/0367 PartyType: owner Effective date: 20040707 Owner: IP RIGHTS, LLC,ALABAMA
US5424014 A	20061208	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US5424014 A	20131101	PEXP		Calculated Patent Term Expiry	
US5723506 A	19961101	LSAS	AS	ASSIGNMENT	Effective date: 19961029 PartyType: owner Owner: APACHE PRODUCTS COMPANY (A FLORIDA CORPORATION), S OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:BURGESS, JAMES H.;REEL/FRAME:008248/0441
US5723506 A	19961101	LSAS	AS	ASSIGNMENT	PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:GLORIOSO, SAMMIE J.;REEL/FRAME:008248/0490 Owner: APACHE PRODUCTS COMPANY, A CORPORATION OF FLORIDA, Effective date: 19961018
US5723506 A	19970611	LSAS	AS	ASSIGNMENT	PartyType: owner Owner: CIT GROUP/CREDIT FINANCE, INC., THE, ILLINOIS Effective date: 19970603 OldParty: FIRST AMENDMENT TO PATENT SECURITY AGREEMENT;ASSIGNOR:APACHE PRODUCTS COMPANY;REEL/FRAME:008574/0255
US5723506 A	19980126	LSGT	PAT1	Patented Case	
US5723506 A	19980126	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US5723506 A	19980303	LSGT	+	granted / extensions (spc, cpc, pte)	
US5723506 A	19980825	LSRE	CC	CERTIFICATE OF CORRECTION	
US5723506 A	19990222	LSAS	AS	ASSIGNMENT	OldParty: MERGER;ASSIGNOR:APC SUBSIDIARY CORP.;REEL/FRAME:009773/0664 PartyType: owner Effective date: 19961227 Owner: APACHE PRODUCTS COMPANY, SOUTH CAROLINA
US5723506 A	19990622		RF	REISSUE APPLICATION FILED	Effective date: 19990504
US5723506 A	19990706	LSAS	AS	ASSIGNMENT	PartyType: owner Owner: APACHE PRODUCTS COMPANY, SOUTH CAROLINA OldParty: MERGER & CHANGE OF NAME;ASSIGNOR:APACHE PRODUCTS COMPANY, A FLORIDA CORPORATION;REEL/FRAME:010061/0608 Effective date: 19961227
US5723506 A	20161101	PEXP		Calculated Patent Term Expiry	
USRE37095 E	20010222	LSGT	PAT1	Patented Case	
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USRE37095 E	20041102	LSAS	AS	ASSIGNMENT	PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:APACHE PRODUCTS COMPANY;REEL/FRAME:015328/0367 Owner: IP RIGHTS, LLC, ALABAMA Effective date: 20040707
USRE37095 E	20041102	LSAS	AS	ASSIGNMENT	Effective date: 20040707 Owner: IP RIGHTS, LLC,ALABAMA PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:APACHE PRODUCTS COMPANY;REEL/FRAME:015328/0367
USRE37095 E	20050810	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
USRE37095 E	20091005		REMI	MAINTENANCE FEE REMINDER MAILED	
USRE37095 E	20100303	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
USRE37095 E	20100303		+SULP	SURCHARGE FOR LATE PAYMENT	Year of fee payment: 11
WO9620966 A1	19960711	LSPB	+	published / reissued	
WO9620966 A1	19960711		+AK	DESIGNATED STATES	Kind code of Ref document: A1

					Country of Ref document: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU JP KE KG KP KR KZ LK LR LT LU LV MD MG MN MW MX NL NO NZ PL PT RO RU SD SE SI SK TJ TT UA UZ VN
WO9620966 A1	19960711		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: A1 Country of Ref document: AT BE BF BJ CF CG CH CI CM DE DK ES FR GA GB GN GR IE IT KE LU MC ML MR MW NE NL PT SD SE SN SZ TD TG
WO9620966 A1	19961002		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	
WO9620966 A1	19961205		DFPE	REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH MONTH FROM PRIORITY DATE (PCT APPLICATION FILED BEFORE 20040101)	
WO9620966 A1	19970630	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 1995907992 Country of Ref document: EP
WO9620966 A1	19970704	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 2209563 Country of Ref document: CA
WO9620966 A1	19970704	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 2209563 Country of Ref document: CA
WO9620966 A1	19971022	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: 1995907992 Country of Ref document: EP
WO9620966 A1	19971106	LSWD	REG	REFERENCE TO NATIONAL CODE	Ref country code: DE Ref legal event code: 8642
WO9620966 A1	20011004	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	Ref document number: 1995907992 Country of Ref document: EP

15) Family number: 42182260 (US2003030168 AA)

Title: PROCESS FOR THE COLD TRANSFORMATION OF MUNICIPAL REFUSES AND/OR SLUDGE INTO INERT MATERIALS, PLANT FOR CARRYING OUT SAID PROCESS AND PRODUCTS OBTAINED

Abstract: The invention relates to a process for the cold transformation of urban solid refuses (USR) and/or sludge into inert materials including **feeding** USR and/or sludge from respective **feeding** lines; introducing the materials within a micronizer in order to reduce the granulometry and to recover water contained therein; adding CaO in an amount between 5 and 10 percent in weight of the main component; adding CaCO3 in an amount between 5 and 10 percent in weight of the main component; adding a polymeric additive in an amount between 3 and 10 percent in weight of the main component; conveying the product to the shaping and stocking step. The invention also relates to a plant for the realisation of the above process and to the products obtained.

Classifications:
International (IPC 8-9): B03B9/00 B03B9/06 B09B3/00 B09B5/00 B27N3/00 B27N3/02 B28B1/00 C02F11/00 C02F11/14 C04B C04B18/00 C04B18/02 C04B18/04 C04B18/30 C04B28/00 C04B28/10
International (IPC 1-7): B03B9/06 B09B B09B3/00 B09B5/00 B27N3/02 B28B1/00 B28B1/08 C02F11/00 C02F11/14 C04B C04B18/00 C04B18/30 G09B
CPC: B03B9/06 B09B3/00 B09B3/0041 C04B18/02 C04B18/305 C04B28/10 Y02W30/91 C04B2111/00784
US: 264/115 264/122 264/122S 264/125 264/14 264/140 264/140S 264/71 264/71P 425/1 425/10

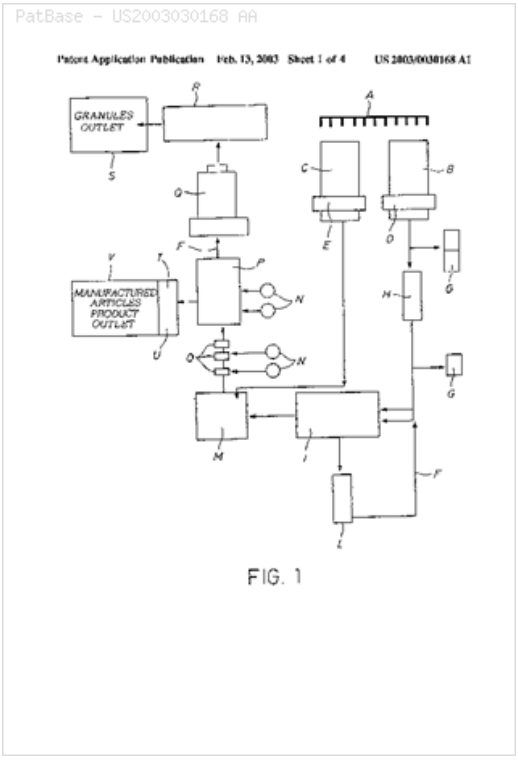


FIG. 1

Family:

Publication number	Publication date	Application number	Application date
AR012668 AA	20001108	AR1998P102116	19980507
AT288408 E	20050215	AT19970922023T	19970507
AU199727875 A1	19981127	AU19970027875	19970507
AU749196 B2	20020620	AU19970027875	19970507
BRPI9714693 A	20000627	BR1997PI14693	19970507
CA2289680 AA	19991108	CA19972289680	19970507
CO5060430 A1	20010730	CO19980025422	19980507
DE69732434 D1	20050310	DE19976032434T	19970507
DE69732434 T2	20060112	DE19976032434T	19970507
EA001735 B1	20010827	EA19990001011	19970507
EA199901011 A1	20000828	EA19990001011	19970507
EG21501 A	20011128	EG19980000492	19980506
EP0984906 A1	20000315	EP19970922023	19970507
EP0984906 B1	20050202	EP19970922023	19970507
ES2237794 T3	20050801	ES19970922023T	19970507
HU0002134 AB	20010129	HU20000002134	19970507
HU0002134 AC	20031028	HU20000002134	19970507
IL132775 A0	20010319	IL19970132775	19970507
JP2002501432 T2	20020115	JP19980547899T	19970507
MA24539 A1	19981231	MA19980025062	19980506
NO995415 A	20000107	NO19990005415	19991105
NO995415 A0	19991105	NO19990005415	19991105
NO995415 L	20000107	NO19990005415	19991105
NZ500851 A	20010330	NZ19970500851	19970507
PE28399 A1	19990408	PE19980000345	19980507
PL188972 B1	20050531	PL19970336699	19970507
PL336699 A1	20000703	PL19970336699	19970507
PT984906 T	20050729	PT19970922023T	19970507
TR200000079 T2	20000522	TR20000000079T	19970507
US2003030168 AA	20030213	US20020066342	20020205
US2005035480 AA	20050217	US20040859616	20040603
WO9850319 A1	19981112	WO1997IT00101	19970507
ZA9803799 A	19981109	ZA19980003799	19980506

Priority:
WO1997IT00101 19970507 US19990423397 19991202 US20020066342 20020205

US20040859616 20040603

Probable Assignee: EREC ECOLOGICAL RECYCLING SRL

Assignee(s): (std): BERNABEI RAFFAELLO ; BERNABEI RAFFAELLOO ; BERNABEI RAFFAELO ; E REC ECOLOGICAL RECYCLING S R ; RAFFAELLO BERNABEI ; RAFFAELLO BERNABEI ITALIANO TE

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Inventor(s): (std): BARNABEI RAFFAAELLO ; BERNABEI RAFFAELLO

Inventor(s): RAFFAELLO BERNABEI

Agent(s): ERNESTO CAVELIER; FB RICE; FB RICE PTY LTD; RIDOUT AND MAYBEE LLP; SMITH GAMBRELL AND RUSSELL LLP

Designated states: AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CU CZ DE DK EE ES FI FR GA GB GE GH GN GR HU IE IL IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SN SZ TD TG TJ TM TR TT UA UG US UZ VN YU

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AR012668 AA	20001108	LSPB	+	published / reissued	
AR012668 AA	20061031	LSWD	-FB	SUSPENSION OF GRANTING PROCEDURE	
AT288408 E	20050215	LSGT	+	granted / extensions (spc, cpc, pte)	
AT288408 E	20050815	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT288408 E	20170507	PEXP		Calculated Patent Term Expiry	
AU199727875 A1	19981127	LSPB	+	published / reissued	
AU749196 B2	20020620	LSGT	+	granted / extensions (spc, cpc, pte)	
AU749196 B2	20021212	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU749196 B2	20170507	PEXP		Calculated Patent Term Expiry	
BRPI9714693 A	20000627	LSPB	+	published / reissued	
BRPI9714693 A	20030812		-FB36	TECHNICAL AND FORMAL REQUIREMENTS: REQUIREMENT - ARTICLE 36 OF INDUSTRIAL PROPERTY LAW	
BRPI9714693 A	20041123		B06A	NOTIFICATION TO APPLICANT TO REPLY TO THE REPORT FOR NON-PATENTABILITY OR INADEQUACY OF THE APPLICATION ACCORDING ART. 36 INDUSTRIAL PATENT LAW	
BRPI9714693 A	20050510		B06A	NOTIFICATION TO APPLICANT TO REPLY TO THE REPORT FOR NON-PATENTABILITY OR INADEQUACY OF THE APPLICATION ACCORDING ART. 36 INDUSTRIAL PATENT LAW	
BRPI9714693 A	20051213	LSGT	B09A	DECISION: INTENTION TO GRANT	
BRPI9714693 A	20060425	LSGT	+B16A	PATENT OR CERTIFICATE OF ADDITION OF INVENTION GRANTED	Text: PRAZO DE VALIDADE: 20 (VINTE) ANOS CONTADOS A PARTIR DE 07/05/1997, OBSERVADAS AS CONDICOES LEGAIS.
BRPI9714693 A	20140415	LSLE	-B24H	LAPSE BECAUSE OF NON-PAYMENT OF ANNUAL FEES (DEFINITIVELY: ART 78 IV LPI)	
BRPI9714693 A	20201201	LSFE	B24F	PATENT ANNUAL FEE: PUBLICATION CANCELLED	Text: ANULADA A PUBLICACAO CODIGO 24.8 NA RPI NO 2258 DE 15/04/2014 POR TER SIDO INDEVIDA.
BRPI9714693 A	20201215	LSLE	-B21F	LAPSE ACC. ART. 78, ITEM IV - ON NON-PAYMENT OF THE ANNUAL FEES IN TIME	Text: REFERENTE AS 16A, 17A, 18A, 19A E 20A ANUIDADES.
CA2289680 AA	19991108	LSPB	+	published / reissued	

CA2289680 AA	20020314	LSES	+EEER	EXAMINATION REQUEST	
CA2289680 AA	20080507	LSLE	-FZDE	DEAD	
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DE69732434 T2	20060112	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69732434 T2	20060413	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69732434 T2	20170507	PEXP		Calculated Patent Term Expiry	
EA001735 B1	20010827	LSGT	+	granted / extensions (spc, cpc, pte)	
EA001735 B1	20030227	LSLE	-MM4A	LAPSE OF A EURASIAN PATENT DUE TO NON-PAYMENT OF RENEWAL FEES WITHIN THE TIME LIMIT IN THE FOLLOWING DESIGNATED STATE(S)	Country of Ref document: AM AZ KG MD TJ TM
EA001735 B1	20050224	LSLE	-MM4A	LAPSE OF A EURASIAN PATENT DUE TO NON-PAYMENT OF RENEWAL FEES WITHIN THE TIME LIMIT IN THE FOLLOWING DESIGNATED STATE(S)	Country of Ref document: BY KZ
EA001735 B1	20100226	LSLE	-MM4A	LAPSE OF A EURASIAN PATENT DUE TO NON-PAYMENT OF RENEWAL FEES WITHIN THE TIME LIMIT IN THE FOLLOWING DESIGNATED STATE(S)	Country of Ref document: RU
EA001735 B1	20170507	PEXP		Calculated Patent Term Expiry	
EA199901011 A1	20000828	LSPB	+	published / reissued	
EG21501 A	20011128	LSGT	+	granted / extensions (spc, cpc, pte)	
EG21501 A	20180506	PEXP		Calculated Patent Term Expiry	
EP0984906 A1	20000315	LSPB	+	published / reissued	
EP0984906 A1	20000315	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 19991126
EP0984906 A1	20000315		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
EP0984906 A1	20010307	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 20010119
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EP0984906 B1	20050202		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: B1 Country of Ref document: AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
EP0984906 B1	20050202	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20050202 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: AT
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EP0984906 B1	20050202	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20050202 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: LI
EP0984906 B1	20050202	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20050202 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: NL
EP0984906 B1	20050202	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref country code: GB Ref legal event code: FG4D
EP0984906 B1	20050215	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: EP
EP0984906 B1	20050223	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref country code: IE Ref legal event code: FG4D
EP0984906 B1	20050310		REF	CORRESPONDS TO:	Date of Ref document: 20050310 Kind code of Ref document: P Ref document number: 69732434 Country of Ref document: DE
EP0984906 B1	20050502	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20050502 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: DK
EP0984906 B1	20050502	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20050502 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: SE
EP0984906 B1	20050507	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20050507 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: LU
EP0984906 B1	20050509	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20050509 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: IE
EP0984906 B1	20050511	LSAS	RAP2	PARTY DATA CHANGED (PATENT OWNER DATA CHANGED OR RIGHTS OF A PATENT TRANSFERRED)	Owner: BERNABEI, RAFFAELLO PartyType: owner
EP0984906 B1	20050511		RIN2	INFORMATION ON INVENTOR PROVIDED AFTER GRANT (CORRECTED)	Inventor: BERNABEI, RAFFAELLO PartyType: inventor
EP0984906 B1	20050531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20050531 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: MC
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				PATENT TRANSFERRED)	PartyType: owner
EP0984906 B1	20050608		RIN2	INFORMATION ON INVENTOR PROVIDED AFTER GRANT (CORRECTED)	Inventor: BERNABEI, RAFFAELLO PartyType: inventor
EP0984906 B1	20050615	LSRE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: GR Ref document number: 20050401543 Ref legal event code: EP Country of Ref document: GR
EP0984906 B1	20050701		NLT2	NL: MODIFICATIONS (OF NAMES), TAKEN FROM THE EUROPEAN PATENT PATENT BULLETIN	Owner: BERNABEI, RAFFAELLO PartyType: owner
EP0984906 B1	20050729		REG	REFERENCE TO A NATIONAL CODE	Effective date: 20050527 Ref country code: PT Ref legal event code: SC4A
EP0984906 B1	20050729	LSAS	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20050527 Owner: E.REC. ECOLOGICAL RECYCLING S.R.L., IT PartyType: owner Ref country code: PT Ref legal event code: PC4A
EP0984906 B1	20050801	LSLE	-NLV1	NL: LAPSED OR ANNULLED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT	Ref country code: EP
EP0984906 B1	20050801	LSGT	REG	REFERENCE TO A NATIONAL CODE	Kind code of Ref document: T3 Ref country code: ES Ref document number: 2237794 Ref legal event code: FG2A Country of Ref document: ES
EP0984906 B1	20050815	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: PL
EP0984906 B1	20060125	LSGT	+26N	NO OPPOSITION FILED	Effective date: 20051103
EP0984906 B1	20060217		+ET	FR: TRANSLATION FILED	
EP0984906 B1	20060222	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: IE Ref legal event code: MM4A
EP0984906 B1	20080930	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20080424 Year of fee payment: 12 Country of Ref document: PT
EP0984906 B1	20090930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20070507 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: IT
EP0984906 B1	20091117	LSLE	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20091109 Ref country code: PT Ref legal event code: MM4A Text: LAPSE DUE TO NON-PAYMENT OF FEES
EP0984906 B1	20100331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20091109 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: PT
EP0984906 B1	20101231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20100514 Year of fee payment: 14 Country of Ref document: GR
EP0984906 B1	20110729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20100505 Year of fee payment: 14 Country of Ref document: IT
EP0984906 B1	20110729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20110530 Year of fee payment: 15 Country of Ref document: ES
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EP0984906 B1	20110831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20110518 Year of fee payment: 15 Country of Ref document: GB
EP0984906 B1	20111130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20110720 Year of fee payment: 15 Country of Ref document: DE
EP0984906 B1	20120210	LSLE	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20111202 Ref country code: GR Ref document number: 20050401543 Ref legal event code: ML Country of Ref document: GR
EP0984906 B1	20120229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20111202 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: GR
EP0984906 B1	20130130	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	Effective date: 20120507 Ref country code: EP
EP0984906 B1	20130228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20120507 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: IT
EP0984906 B1	20130301	LSLE	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20130131 Ref country code: FR Ref legal event code: ST
EP0984906 B1	20130314	LSDW	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20121201 Ref country code: DE Ref document number: 69732434 Ref legal event code: R119 Country of Ref document: DE
EP0984906 B1	20130430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20120507 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: GB
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EP0984906 B1	20130628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20121201 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: DE
EP0984906 B1	20130820	LSLE	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20130820 Ref country code: ES Ref legal event code: FD2A
EP0984906 B1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20120508 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: ES
EP0984906 B1	20170507	PEXP		Calculated Patent Term Expiry	
ES2237794 T3	20050801	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2237794 T3	20170507	PEXP		Calculated Patent Term Expiry	
HU0002134 AB	20010129	LSPB	+	published / reissued	
JP2002501432 T2	20020115	LSPB	+	published / reissued	
MA24539 A1	19981231	LSPB	+	published / reissued	

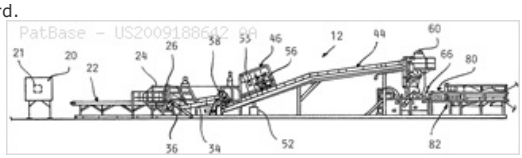
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NZ500851 A	20010727	LSGT	+PSEA	PATENT SEALED	
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NZ500851 A	20071130	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	
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NZ500851 A	20170526	LSLE	-EXPY	PATENT EXPIRED	
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PE28399 A1	20010323	LSGT	+FG	GRANT, REGISTRATION	
PE28399 A1	20050121	LSWD	-FD	APPLICATION DECLARED VOID OR LAPSED	
PL188972 B1	20050531	LSGT	+	granted / extensions (spc, cpc, pte)	
PL188972 B1	20100831	LSLE	-LAPS	DECISIONS ON THE LAPSE OF THE PROTECTION RIGHTS	Effective date: 20090507
PL336699 A1	20000703	LSPB	+	published / reissued	
PT984906 T	20050729	LSGT	+	granted / extensions (spc, cpc, pte)	
PT984906 T	20170507	PEXP		Calculated Patent Term Expiry	
TR200000079 T2	20000522	LSPB	+	published / reissued	
US2003030168 AA	20030213	LSPB	+	published / reissued	
US2003030168 AA	20040727	LSWD	ABD2	Abandoned -- Failure to Pay Issue Fee	
US2003030168 AA	20040727		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO PAY ISSUE FEE
US2005035480 AA	20050217	LSPB	+	published / reissued	
US2005035480 AA	20080522	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2005035480 AA	20080522		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
WO9850319 A1	19970507	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: P-572/99 Country of Ref document: YU
WO9850319 A1	19970507	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 97182233.6 Country of Ref document: CN
WO9850319 A1	19981112	LSPB	+	published / reissued	
WO9850319 A1	19981112		+AK	DESIGNATED STATES	Kind code of Ref document: A1 Country of Ref document: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN YU
WO9850319 A1	19981112		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: A1 Country of Ref document: AM AT AZ BE BF BJ BY CF CG CH CI CM DE DK ES FI FR GA GB GH GN GR IE IT KE KG KZ LS LU MC MD ML MR MW NE NL PT RU SD SE SN SZ TD TG TJ TM UG
WO9850319 A1	19990121		DFPE	REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH MONTH FROM PRIORITY DATE (PCT APPLICATION FILED BEFORE 20040101)	
WO9850319 A1	19990407		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT	

				EP WAS DESIGNATED IN THIS APPLICATION	
WO9850319 A1	19991105	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 500851 Country of Ref document: NZ
WO9850319 A1	19991108	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 2289680 Country of Ref document: CA
WO9850319 A1	19991108	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 2289680 Country of Ref document: CA
WO9850319 A1	19991108	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 1998 547899 Country of Ref document: JP
WO9850319 A1	19991108	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: PA/a/1999/010247 Country of Ref document: MX
WO9850319 A1	19991126	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 1997922023 Country of Ref document: EP
WO9850319 A1	19991202	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 09423397 Country of Ref document: US
WO9850319 A1	19991206	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 199901011 Country of Ref document: EA
WO9850319 A1	20000113	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2000/00079 Country of Ref document: TR
WO9850319 A1	20000309	LSWD	REG	REFERENCE TO NATIONAL CODE	Ref country code: DE Ref legal event code: 8642
WO9850319 A1	20000315	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: 1997922023 Country of Ref document: EP
WO9850319 A1	20050202	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	Ref document number: 1997922023 Country of Ref document: EP
ZA9803799 A	19981109	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA9803799 A	20180505	PEXP		Calculated Patent Term Expiry	

16) Family number: 43551858 (US2009188642 AA)

Title: METHOD FOR MAKING A **COMPRESSED** STRUCTURAL FIBERBOARD

Abstract: An improved method for making **compressed** structural fiberboard by **extruding** agricultural fibrous matter into said **compressed** structural fiberboard. The improved method of the present invention includes providing a preselected volume of agricultural fibrous matter and preconditioning the agricultural fibrous matter to have a predetermined moisture level therein. The agricultural fibrous matter is separated and cleaned, and steam is added to the agricultural fibrous matter until a predetermined level of moisture is reached within the agricultural fibrous matter. A predetermined level of borax is also added to the agricultural fibrous matter to prevent the formation of bacteria within the agricultural fibrous matter. The agricultural fibrous matter is conveyed throughout the process on **conveyors** having variable drives, wherein the level of the agricultural fibrous matter on the **conveyors** is sensed such that a signal is provided to the variable drives to adjust the speed of the **conveyors** in order to provide a predetermined level of agricultural fibrous matter. The agricultural fibrous matter is then **extruded** to form a **compressed** structural fiberboard.



Classifications:
International (IPC 8-9): B27N1/00 B27N1/02 B27N3/08 B27N3/18 B27N3/28 B27N7/00 D04H1/58 D21F13/00
International (IPC 1-7): B27N3/28
CPC: B27N1/029 B27N3/18 B27N3/28 B27N7/005
US: 162/201 162/225 241/24.1 241/24.29 241/28

Family:

Publication number	Publication date	Application number	Application date
CN102026785 A	20110420	CN200880128289	20081202
CN102026785 B	20140423	CN200880128289	20081202
CO6280516 A2	20110520	CO20100090004	20100723
CR11622 A	20101124	CR20100011622	20100806
EG25905 A	20121007	EG20100071249	20100722
EP2240307 A1	20101020	EP20080871368	20081202
IN06000DN2010 A	20110325	IN2010DN06000	20100824
NI201000128 A	20110317	NI20100000128	20100723
UA103311 C2	20131010	UA20100010244	20081202
US2009188642 AA	20090730	US20080019389	20080124
US8052842 BB	20111108	US20080019389	20080124
WO09094011 A1	20090730	WO2008US13277	20081202

Priority:
US20080019389 20080124 WO2008US13277 20081202

Probable Assignee: AGRIBOARD INT LLC

Assignee(s): (std): AGRIBOARD IND ; AGRIBOARD INT LLC ; PITTMAN PAUL H ; PYLES DAVID G ; RYAN DEV CO L C ; RYAN DEV CO L C DBA AGRIBOARD IND

Assignee(s): AGRIBOARD INDUSTRIES ; RYAN DEVELOPMENT CO ; RYAN DEVELOPMENT CO L C ; RYAN DEVELOPMENT CO L C DBA AGRIBOARD INDUSTRIES ; RYAN DEVELOPMENT CO LC DBA AGRIBOARD IND

Inventor(s): (std): DAVID G PYLES ; PAUL H PITTMAN ; PITTMAN PAUL ; PITTMAN PAUL H ; PYLES DAVID ; PYLES DAVID BOCHNA G ; PYLES DAVID G

Inventor(s): DAVID PYLES ; PAUL PITTMAN

Agent(s): BEATTIE ALEX THOMAS STEWART; HUMBERTO RUBIO CAMACHO; MOORE TODD L; YOUNG AND BASILE PC; YOUNG BASILE HANLON AND MACFARLANE PC

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
CN102026785 A	20110420	LSPB	+	published / reissued	
CN102026785 A	20110420	LSPB	+C06	PUBLICATION	
CN102026785 A	20110608		C10	ENTRY INTO SUBSTANTIVE EXAMINATION	
CN102026785 A	20130821	LSAS	ASS	SUCCESSION OR ASSIGNMENT OF PATENT RIGHT	Effective date: 20130726 OldParty: FORMER OWNER: RYAN DEVELOPMENT CO., LTD. OPERATING IN THE NAME OF AGRICULTURAL BOARD INDUSTRY COMPANY Owner: AGRIBOARD INTERNATIONAL, LLC PartyType: owner
CN102026785 A	20130821	LSAS	C41	TRANSFER OF PATENT APPLICATION OR PATENT RIGHT OR UTILITY MODEL	
CN102026785 B	20140423	LSGT	+	granted / extensions	

				(spc, cpc, pte)	
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CN102026785 B	20180123	LSLE	-CF01	TERMINATION OF PATENT RIGHT DUE TO NON-PAYMENT OF ANNUAL FEE	
CN102026785 B	20281202	PEXP		Calculated Patent Term Expiry	
CO6280516 A2	20110520	LSPB	+	published / reissued	
CO6280516 A2	20130219	LSGT	+FG	APPLICATION GRANTED	
CR11622 A	20101124	LSPB	+	published / reissued	
EG25905 A	20121007	LSGT	+	granted / extensions (spc, cpc, pte)	
EG25905 A	20300722	PEXP		Calculated Patent Term Expiry	
EP2240307 A1	20101020	LSPB	+	published / reissued	
EP2240307 A1	20101020	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20100802
EP2240307 A1	20101020		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR
EP2240307 A1	20101020		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Country of Ref document: AL BA MK RS
EP2240307 A1	20110427		DAX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT (DELETED)	
EP2240307 A1	20130918	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	Owner: AGRIBOARD INTERNATIONAL, LLC PartyType: owner
EP2240307 A1	20160217	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 20160115
EP2240307 A1	20171206	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	Effective date: 20170701
IN06000DN2010 A	20110325	LSPB	+	published / reissued	
NI201000128 A	20110317	LSGT	+	granted / extensions (spc, cpc, pte)	
NI201000128 A	20300723	PEXP		Calculated Patent Term Expiry	
UA103311 C2	20131010	LSGT	+	granted / extensions (spc, cpc, pte)	
UA103311 C2	20281202	PEXP		Calculated Patent Term Expiry	
US2009188642 AA	20090730	LSPB	+	published / reissued	
US2009188642 AA	20111019	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US8052842 BB	20080124	LSAS	AS	ASSIGNMENT	Effective date: 20080122 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:PITTMAN, PAUL H., MR.;PYLES, DAVID G., MR.;REEL/FRAME:020410/0202 Owner: AGRIBOARD INDUSTRIES, KANSAS PartyType: owner
US8052842 BB	20111019	LSGT	PAT1	Patented Case	

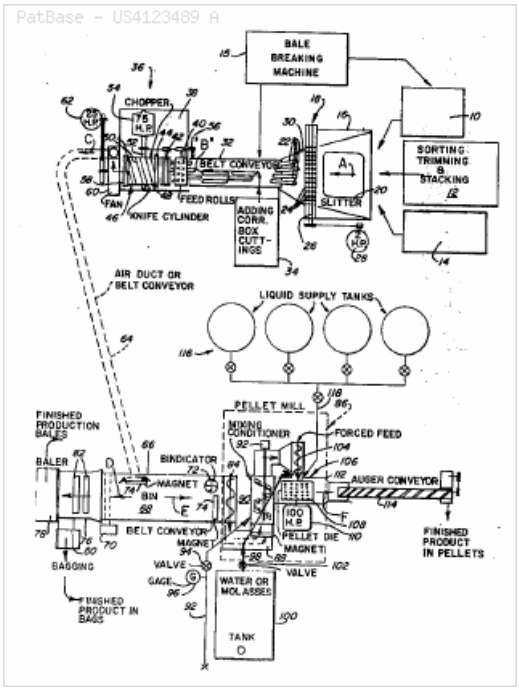
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US8052842 BB	20150508	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US8052842 BB	20150529	LSAS	AS	ASSIGNMENT	Effective date: 20150527 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:AGRIBOARD INDUSTRIES;REEL/FRAME:035743/0616 Owner: AGRIBOARD INTERNATIONAL, LLC, KANSAS PartyType: owner
US8052842 BB	20190508	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	Year of fee payment: 8
US8052842 BB	20300529	PEXP		Calculated Patent Term Expiry (PTA 856 days)	
WO09094011 A1	20081202	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 200880128289.8 Country of Ref document: CN
WO09094011 A1	20090730	LSPB	+	published / reissued	
WO09094011 A1	20090923		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Kind code of Ref document: A1 Ref document number: 08871368 Country of Ref document: EP
WO09094011 A1	20100723	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 10090004 Country of Ref document: CO
WO09094011 A1	20100727	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO09094011 A1	20100802		+REEP	REQUEST FOR ENTRY INTO THE EUROPEAN PHASE	Ref document number: 2008871368 Country of Ref document: EP
WO09094011 A1	20100802	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2008871368 Country of Ref document: EP
WO09094011 A1	20100806	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 201011622 Country of Ref document: CR
WO09094011 A1	20100806	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: CR2010-011622 Country of Ref document: CR
WO09094011 A1	20100824	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: A201010244 Country of Ref document: UA
WO09094011 A1	20100824	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 6000/DELNP/2010 Country of Ref document: IN

17) Family number: 7121604 (US4123489 A)

Title: METHOD FOR CONVERTING WASTE **PAPER** PRODUCTS INTO USEFUL FORMS

Abstract: A method is provided for converting waste **paper** materials into more useful forms for uses such as plant mulches, lightweight concrete aggregates, fertilizers, animal **feeds**, chemical food stock and other materials, fuels and uses such as recycling **paper** processes. Waste **paper** materials including corrugated box board, **paper** board, **paper** of all types, etc. is available as a raw material in a wide variety of forms such as sheets, bales, bundles, boxes, shavings, clippings from box making operations, magazines, newspapers, etc. and these products are much more useful for the purposes and uses mentioned after treatment and conversion into a more useful form. This conversion includes the steps of bale breaking, sorting, trimming and/or cutting these raw materials into pieces of relatively limited size for **feeding** across a cutter bar into a rotating knife cylinder wherein the raw materials are cut into small pieces. The small pieces are passed through a recutter screen having sizing openings and cooperating with the rotating knife cylinder for further reduction in size. Metal and other undesirable impurities are removed before cutting and again after cutting and the finished cuttings are then formed into **extruded** pellets under heat and pressure or the cuttings may be bagged or **compressed** into bales. The cuttings may also be mixed with a large variety of ingredients such as chemicals, **feed** supplements, additives, water, lubricants, other organic and inorganic material and then may be bagged, baled or pelleted.

Classifications:
International (IPC 8-9): D21B1/00 D21B1/02 D21B1/10
International (IPC 1-7): B02C18/44
CPC: B02C18/0084 D21B1/028 D21B1/10 Y02W30/64 Y10S264/914 Y10S264/918
US: 162/4 241/221 241/24.13 241/24.19 241/27 264/141 264/914 264/918



Family:

Publication number	Publication date	Application number	Application date
US4123489 A	19781031	US19770797623	19770517

Priority:
US19770797623 19770517

Probable Assignee: FLETT DEV CO
Assignee(s): (std): FLETT DEV CO ; FLETT DEV COMPANY
Assignee(s): FLETT DEVELOPMENT CO ; FLETT DEVELOPMENT COMPANY
Inventor(s): (std): KELLEY JOSEPH A

Legal status (INPADOC)

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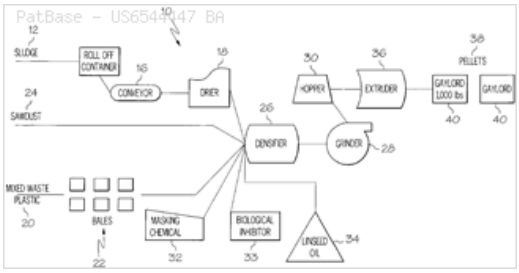
Patent	Date recorded	Event group	Code	Event	Details
US4123489 A	19781031	LSGT	+	granted / extensions (spc, cpc, pte)	
US4123489 A	19970517	PEXP		Calculated Patent Term Expiry	

18) Family number: 30131021 (US6544447 BA)

Title: METHOD OF **PAPER** SLUDGE AND PLASTICS FORMULATION

Abstract: This invention generally relates to the formulation of thermoplastic pellets from a combination of raw sludge material from a **paper** mill with thermoplastic material from post industrial or consumer sources. Initially, waste raw sludge material is transported via a **conveyor** to a dryer for removal of excess water. The waste thermoplastic material is preferably shredded into a desired size and transported to a densifier. The dried sludge is added to the densifier where the shredded thermoplastic material and dried sludge is suitably mixed with additive agents. The mixed sludge and shredded thermoplastic material is then transported to a grinder for grinding. The ground material is then transported to a hopper for introduction into an **extruder**. The ground combined material is then subjected to an extrusion process for the formulation of thermoplastic pellets having supplemental fibers to enhance the properties for use as starting material in an injection molding process.

Classifications:
International (IPC 8-9): B29B17/00 B29B9/12 B29B9/14
International (IPC 1-7): B29B7/00 B29C4/700 B29C47/00
CPC: B29B17/0026 B29B9/14 B29K2105/06 B29K2105/065 B29K2105/16 Y02W30/62
US: 264/143 264/143P 264/211 264/211S 264/37.26 264/37.29 428/542.8 428/542.800S



Family:

Publication number	Publication date	Application number	Application date
US6544447 BA	20030408	US20000538045	20000329
US2003151160 AA	20030814	US20030386323	20030310

Priority:
US19990128133P 19990407 US20000538045 20000329 US20030386323 20030310

Probable Assignee: BTA DUFFERS VENTURE GROUP LLC
Assignee(s): BTA DUFFERS VENTURE GROUP LLC ; FAERBER THOMAS C
Inventor(s): (std): FAERBER THOMAS C
Inventor(s): THOMAS C FAERBER
Agent(s): VIDAS ARRETT AND STEINKRAUS PA

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US2003151160 AA	20030310	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:FAERBER, THOMAS C.;REEL/FRAME:013861/0774 Owner: BTA DUFFERS VENTURE GROUP, LLC, WISCONSIN PartyType: owner Effective date: 20030228
US2003151160 AA	20030814	LSPB	+	published / reissued	
US2003151160 AA	20050311	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2003151160 AA	20050311		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US6544447 BA	20030408	LSGT	+	granted / extensions (spc, cpc, pte)	
US6544447 BA	20061025		REMI	MAINTENANCE FEE REMINDER MAILED	
US6544447 BA	20070408	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6544447 BA	20070509	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6544447 BA	20070509	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6544447 BA	20070605	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20070408
US6544447 BA	20200329	PEXP		Calculated Patent Term Expiry	

19) Family number: 29315447 (US5607636 A)

Title: PROCESS OF MAKING PLEXIFILAMENTARY FIBER

Abstract: A three-dimensional plexifilamentary fiber (26) of a high-density polyethylene group obtained by supplying a polymer to a dissolving area in a state such that the polymer is melted by a heated **screw** **extruder** (**compressing** zone 13, metering zone 14 to 16), supplying a solvent (CCl3F) into the melted polymer (**feed** opening 18), mixing and dissolving the polymer and the solvent to make a polymer solution, and **extruding** the polymer solution from a nozzle (24 in FIG. 24) arranged in the dissolving area into a low pressure area. A nonwoven fabric is obtained through a process in which the fiber (26) is spread by striking the fiber against a skirt portion (33) having a fiber swinging face (34) and a cushioning face (35), and this nonwoven fabric has an excellent strength, covering property, and whiteness.

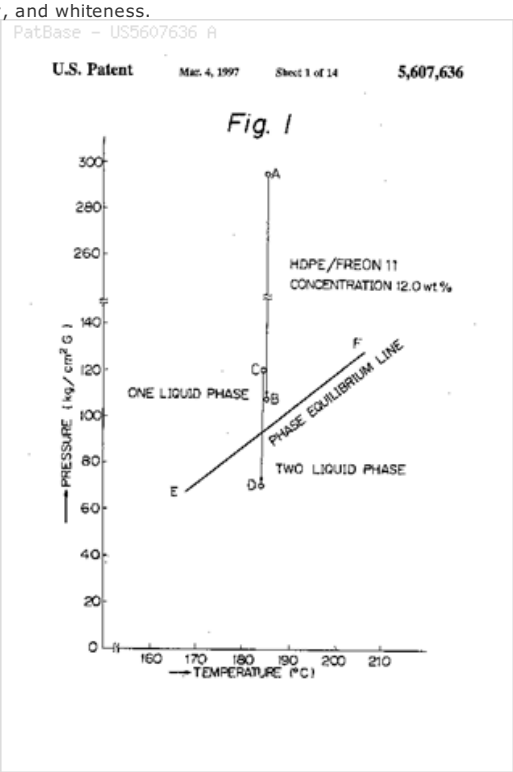
Classifications:

International (IPC 8-9): B29C47/60 B29C47/64 B29C48/67 D01D1/02 D01D5/00 D01D5/11 D01F6/00 D01F6/04 D01F6/46 D04H1/42 D04H1/4291 D04H1/70 D04H1/72 D04H1/724 D04H3/00 D04H3/007 D04H3/018 D04H3/02 D04H3/03 D04H3/033 D04H3/16

International (IPC 1-7): D01D1/02 D01D5/11 D01F6/00 D01F6/04 D01F6/46 D04H1/42 D04H1/72 D04H13/02 D04H3/00 D04H3/03 D04H3/16

CPC: D01D5/11 D01F6/04 D04H3/16 B29C48/05 B29C48/08 B29C48/58

US: 264/205 264/211.22 264/211.23 425/382.3 425/404



Family:

Publication number	Publication date	Application number	Application date
DE3751793 D1	19960605	DE19873751793T	19871013
DE3751793 T2	19970109	DE19873751793T	19871013
EP0285670 A1	19881012	EP19870906606	19871013
EP0285670 A4	19900108	EP19870906606	19871013
EP0285670 B1	19960501	EP19870906606	19871013
JP2040289 C3	19960328	JP19860241450	19861013
JP63099365 A2	19880430	JP19860241450	19861013
JP7072388 B4	19950802	JP19860241450	19861013
JP2129554 C3	19970516	JP19870095231	19870420
JP3047322 B4	19910719	JP19870095231	19870420
JP63050512 A2	19880303	JP19870095231	19870420
JP1020366 A2	19890124	JP19870172960	19870713
JP64020366 A2	19890124	JP19870172960	19870713
JP1097256 A2	19890414	JP19870295978	19871126
JP2588551 B2	19970305	JP19870295978	19871126
JP1111009 A2	19890427	JP19870308599	19871208
JP2617957 B2	19970611	JP19870308599	19871208
JP1132856 A2	19890525	JP19870316089	19871216
JP2705793 B2	19980128	JP19870316089	19871216
JP10001819 A2	19980106	JP19970051684	19970306
JP2859239 B2	19990217	JP19970051684	19970306
KR19880701796 A	19881105	KR19880700670	19880613
KR910005573 B1	19910731	KR19880700670	19880613
US5607636 A	19970304	US19940233947	19940428
US5840234 A	19981124	US19960614067	19960312
WO8802795 A1	19880421	WO1987JP00765	19871013

Priority:

JP19860091254 19860422	JP19860096826 19860428	JP19860241450 19861013
JP19870095231 19870420	JP19870169682 19870709	JP19870172073 19870711
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WO1987JP00765 19871013	JP19870295978 19871126	JP19870316089 19871216
US19880211234 19880609	US19910814046 19911226	US19920968463 19921029
US19940233947 19940428	US19960614067 19960312	JP19970051684 19970306

Probable Assignee: ASAHI CHEMICAL IND

Assignee(s): (std): ASAHI CHEMICAL IND ; ASAHI KASEI CORP

Assignee(s): ASAHI CHEM IND CO LTD ; ASAHI KASEI IND CO ; ASAHI KASEI IND CO LTD ; ASAHI KASEI

	KABUSHIKI KAISHA ; ASAHI KASEI KK ; ASAHI KASEI KOGYO K K OSAKA JP ; ASAHI KASEI KOGYO KABUSHIKI KAISHA ; ASAHI KASEI KOGYO KK
Inventor(s): (std):	HIKASA KASUZI ; HIKASA KATSUJI ; HIKASA KATSUZI ; ITO KOHZOH ; ITO KOZO ; NAKAYAMA YOSHIAKI ; UENO IKUO
Inventor(s):	HIKASA KATSUJI MORIYAMA SHI SHIGA 524 JP ; ITO KOHZOH MORIYAMA SHI SHIGA 524 JP ; NAKAYAMA YOSHIAKI MORIYAMA SHI SHIGA 524 JP ; UENO IKUO MORIYAMA SHI SHIGA 524 JP
Agent(s):	ISHIDA TAKASHI; NISHIYAMA MASAYA
Designated states:	BE DE FR GB IT KR LU NL SE US

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
DE3751793 D1	19970528	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE3751793 T2	19970109	LSGT	+	granted / extensions (spc, cpc, pte)	
DE3751793 T2	19970528	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
EP0285670 A1	19881012	LSPB	+	published / reissued	
EP0285670 A1	19881012	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 19880611
EP0285670 A1	19881012		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: BE DE FR GB IT LU NL SE
EP0285670 A1	19900228	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	Effective date: 19900108
EP0285670 A1	19910918	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 19910801
EP0285670 A1	19960501		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: B1 Country of Ref document: BE DE FR GB IT LU NL SE
EP0285670 A1	19960605		REF	CORRESPONDS TO:	Date of Ref document: 19960605 Ref document number: 3751793 Country of Ref document: DE
EP0285670 A1	19960607		+ET	FR: TRANSLATION FILED	
EP0285670 A1	19960702		+ITF	IT: TRANSLATION FOR A EP PATENT FILED	PartyType: owner Owner: SOCIETA' ITALIANA BREVETTI S.P.A.
EP0285670 A1	19970423	LSGT	+26N	NO OPPOSITION FILED	
EP0285670 A1	20020101		REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: IF02 Ref country code: GB
EP0285670 A1	20061004	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20061004 Year of fee payment: 20 Country of Ref document: SE
EP0285670 A1	20061005	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 20 Payment date: 20061005 Country of Ref document: DE
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EP0285670 A1	20061013	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20061013 Year of fee payment: 20 Country of Ref document: LU
EP0285670 A1	20061015	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 20 Payment date: 20061015 Country of Ref document: NL

EP0285670 A1	20061031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 20 Payment date: 20061031 Country of Ref document: IT
EP0285670 A1	20061218	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 20 Payment date: 20061218 Country of Ref document: BE
EP0285670 A1	20071107	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: GB Ref legal event code: PE20
EP0285670 A1	20071203	LSLE	-NLV7	NL: LAPSED DUE TO REACHING THE MAXIMUM LIFETIME OF A PATENT	Effective date: 20071013 Ref country code: EP
EP0285670 A1	20071231	LSLE	-BE20	BE: PATENT EXPIRED	PartyType: owner Owner: *ASAHI KASEI KOGYO K.K. Effective date: 20071013 Ref country code: EP
EP0285670 A1	20080131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20071013 NotificationOfLapse: LAPSE BECAUSE OF EXPIRATION OF PROTECTION Country of Ref document: NL
EP0285670 A1	20080430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF EXPIRATION OF PROTECTION Lapsed date: 20071012 Country of Ref document: GB
EP0285670 A1	20081031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20061010 Year of fee payment: 20 Country of Ref document: FR
EP0285670 B1	19960501	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0285670 B1	20071013	PEXP		Calculated Patent Term Expiry	
JP10001819 A2	19980106	LSPB	+	published / reissued	
JP10001819 A2	19981028	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	Effective date: 19981027 Text: JAPANESE INTERMEDIATE CODE: A01
JP1020366 A2	19890124	LSPB	+	published / reissued	
JP1097256 A2	19890414	LSPB	+	published / reissued	
JP1111009 A2	19890427	LSPB	+	published / reissued	
JP1132856 A2	19890525	LSPB	+	published / reissued	
JP2040289 C3	19960328	LSGT	+	granted / extensions (spc, cpc, pte)	
JP2040289 C3	20061013	PEXP		Calculated Patent Term Expiry	
JP2129554 C3	19970516	LSGT	+	granted / extensions (spc, cpc, pte)	
JP2129554 C3	20070420	PEXP		Calculated Patent Term Expiry	
JP2588551 B2	19970305	LSGT	+	granted / extensions (spc, cpc, pte)	
JP2588551 B2	20071126	PEXP		Calculated Patent Term Expiry	
JP2588551 B2	20071126	LSLE	-EXPY	CANCELLATION BECAUSE OF COMPLETION OF TERM	
JP2617957 B2	19970611	LSGT	+	granted / extensions (spc, cpc, pte)	
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JP2617957 B2	20080305	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	Year of fee payment: 11

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JP2705793 B2	20071216	LSLE	-EXPY	CANCELLATION BECAUSE OF COMPLETION OF TERM	
JP2705793 B2	20080305	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	Year of fee payment: 11
JP2859239 B2	19990217	LSGT	+	granted / extensions (spc, cpc, pte)	
JP2859239 B2	20070420	LSLE	-EXPY	CANCELLATION BECAUSE OF COMPLETION OF TERM	
JP2859239 B2	20070718	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	Year of fee payment: 9
JP2859239 B2	20170306	PEXP		Calculated Patent Term Expiry	
JP3047322 B4	19910719	LSPB	+	published / reissued	
JP3047322 B4	20070420	LSLE	-EXPY	CANCELLATION BECAUSE OF COMPLETION OF TERM	
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JP63050512 A2	19880303	LSPB	+	published / reissued	
JP63099365 A2	19880430	LSPB	+	published / reissued	
JP64020366 A2	19890124	LSPB	+	published / reissued	
JP7072388 B4	19950802	LSPB	+	published / reissued	
JP7072388 B4	20061013	LSLE	-EXPY	CANCELLATION BECAUSE OF COMPLETION OF TERM	
KR19880701796 A	19880613	LSES	A201	REQUEST FOR EXAMINATION	
KR19880701796 A	19881105	LSPB	+	published / reissued	
KR19880701796 A	19910227	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR19880701796 A	19910629	LSPB	G160	DECISION TO PUBLISH PATENT APPLICATION	
KR19880701796 A	19911015	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR19880701796 A	19920109	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR19880701796 A	20070723	LSFE	FPAY	ANNUAL FEE PAYMENT	Payment date: 20070723 Year of fee payment: 17
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KR910005573 B1	19910731	LSGT	+	granted / extensions (spc, cpc, pte)	
KR910005573 B1	20080613	PEXP		Calculated Patent Term Expiry	
US5607636 A	19970221	LSGT	PAT1	Patented Case	
US5607636 A	19970221	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US5607636 A	19970304	LSGT	+	granted / extensions (spc, cpc, pte)	
US5607636 A	20000828	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5607636 A	20040804	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US5607636 A	20080827	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US5607636 A	20140428	PEXP		Calculated Patent Term Expiry	
US5840234 A	19981124	LSGT	+	granted / extensions (spc, cpc, pte)	
US5840234 A	20020502	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5840234 A	20060428	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8

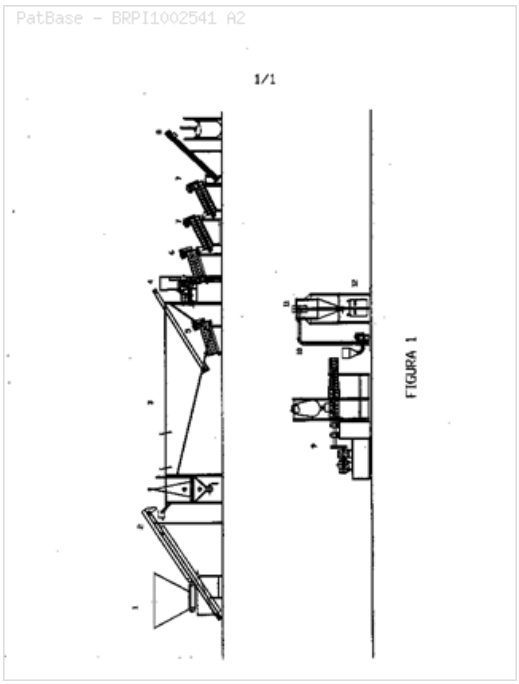
US5840234 A	20100628		REMI	MAINTENANCE FEE REMINDER MAILED	
US5840234 A	20101124	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5840234 A	20101220	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5840234 A	20101220	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5840234 A	20110111	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20101124
US5840234 A	20160312	PEXP		Calculated Patent Term Expiry	
WO8802795 A1	19880421	LSPB	+	published / reissued	
WO8802795 A1	19880421		+AK	DESIGNATED STATES	Kind code of Ref document: A1 Country of Ref document: KR US
WO8802795 A1	19880421		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: A1 Country of Ref document: BE DE FR GB IT LU NL SE
WO8802795 A1	19880611	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 1987906606 Country of Ref document: EP
WO8802795 A1	19881012	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: 1987906606 Country of Ref document: EP
WO8802795 A1	19960501	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	Ref document number: 1987906606 Country of Ref document: EP

20) Family number: 50904372 (BRPI1002541 A2)

Title: PROCESS separating and recovering PLASTIC FILMS AND GIFTS PULP FIBER IN **PAPER** **MANUFACTURE** residue from SCRAP POST-CONSUMER (Machine translation)

Abstract: Source: BRPI1002541 A2 **Machine translation:** PROCESS separation and recovery PLASTIC FILMS AND FIBER PULP PRESENT IN WASTE FROM THE **MANUFACTURE** OF **PAPER** FROM POST-CONSUMER SCRAP. Residues from the **manufacture** of **paper** from post-consumer scrap are measured by an input hopper **conveyor** belt on the separation tank, in which contaminations dense or high volume are removed in the first tank region and the fiber cellulose and plastic films are for the second region. This region is the flotation of plastics films which are removed by a **conveyor**. The cellulose fiber and removal by water circulation. The films are then milled, washed and centrifuged to remove excess surface moisture. Then, they are still packaged in tamper and are ready to serve as the raw material for plastics industry transformation.

Classifications:
International (IPC 8-9): B29B17/02 C08J11/00 D21B1/32
CPC: Y02W30/62 Y02W30/64



Family:

Publication number	Publication date	Application number	Application date
BRPI1002541 A2	20120327	BR2010PI02541	20100708

Priority:

BR2010PI02541 20100708

Probable Assignee: ECO2 PARTICIPACOES LTDA
Assignee(s): (std): ECO2 PARTICIPACOES LTDA
Inventor(s): (std): GHIRELLO PLINIO JR ; KUDRJAWZEW VLADIMIR
Inventor(s): PLINIO GHIRELLO FILHO ; VLADIMIR KUDRJAWZEW

Legal status (INPADOC)

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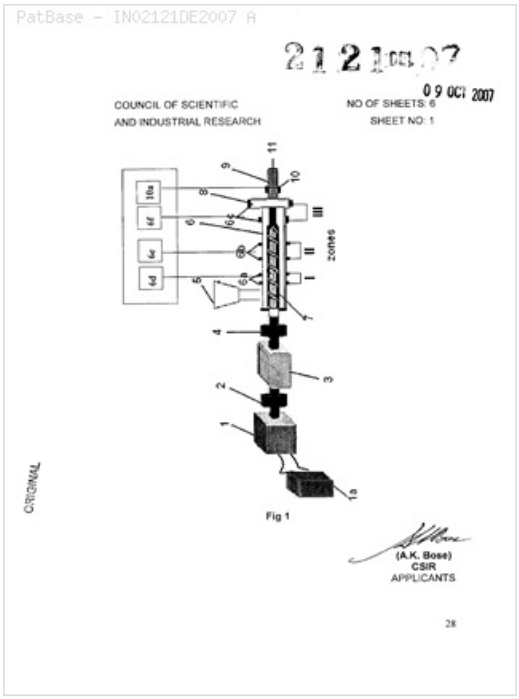
Patent	Date recorded	Event group	Code	Event	Details
BRPI1002541 A2	20120327	LSPB	+	published / reissued	
BRPI1002541 A2	20120327	LSPB	B03A	PUBLICATION OF AN APPLICATION: PUBLICATION OF A PATENT APPLICATION OR OF A CERTIFICATE OF ADDITION OF INVENTION	
BRPI1002541 A2	20131231	LSRV	-B11A	DISMISSAL ACC. ART.33 OF IPL - EXAMINATION NOT REQUESTED WITHIN 36 MONTHS OF FILING	
BRPI1002541 A2	20140429	LSRV	-B11Y	DEFINITIVE DISMISSAL ACC. ARTICLE 33 OF IPL - EXTENSION OF TIME LIMIT FOR REQUEST OF EXAMINATION EXPIRED	

21) Family number: 41822674 (IN02121DE2007 A)

Title: A MACHINE FOR THE CONTINUOUS **MANUFACTURING** OF BETA FORM POLYVINYLIDENE FLUORIDE (PVDF) FILM FOR PIEZOELECTRIC APPLICATIONS AND A PROCESS THEREOF

Abstract: A machine for the continuous **manufacturing** of beta-form Polyvinylidene Fluoride (PVDF) polymer film for piezoelectric applications and a process thereof. Present invention discloses a machine and a process for the continuous **manufacturing** of beta-form PVDF polymer film for piezoelectric applications. The machine consists in combination an **extruder** unit, a chill roll unit and a stretching machine. The **extruder** produces beta-form PVDF film from PVDF granules. The film is then taken out via chill roll unit to the stretching unit consisting of adjustable heating rollers and wind-up rollers to convert the beta-form to beta-form film. Machine of present invention is simple, flexible, portable and feasible considering the cost of production. The process of the present invention is continuous in operation and bulk amounts of beta-form PVDF film can be converted to beta-form.

Classifications:
International (IPC 1-7): F01D



Family:

Publication number	Publication date	Application number	Application date
IN02121DE2007 A	20080523	IN2007DE02121	20071009
IN266633 B	20150529	IN2007DE02121	20071009

Probable Assignee: COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH
Assignee(s): COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH
Inventor(s): DESHPANDE ANIL ASHOK ; JAIN ANJANA ; MAHESALE SREENIVASA PRADEEP

Legal status (INPADOC)

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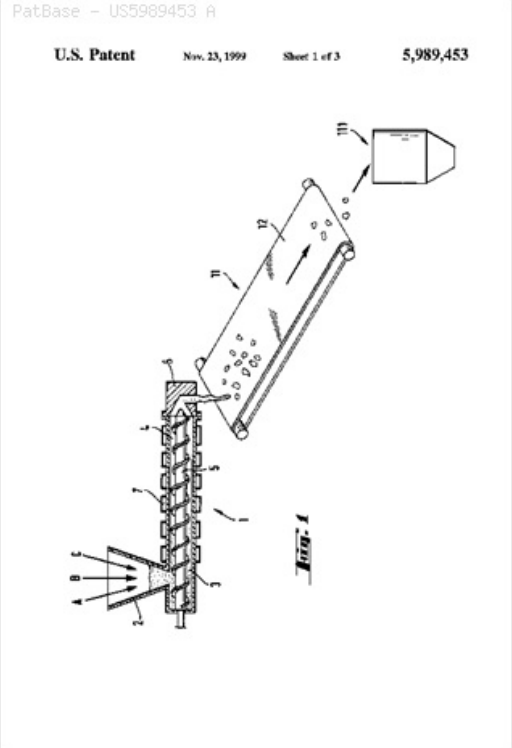
Patent	Date recorded	Event group	Code	Event	Details
IN02121DE2007 A	20080523	LSPB	+	published / reissued	
IN266633 B	20150529	LSGT	+	granted / extensions (spc, cpc, pte)	
IN266633 B	20271009	PEXP		Calculated Patent Term Expiry	

22) Family number: 28648314 (US5989453 A)

Title: PROCESS FOR THE **MANUFACTURE** OF PIGMENTS, ESPECIALLY FLUORESCENT PIGMENTS

Abstract: A process for the **manufacture** of pigments comprising a colored composition incorporated in a polycondensation resin, wherein the reactants for the formation of the polycondensation resin and the colored composition are introduced continuously into an **extruder**, preferably at a temperature of between 100 DEG C. and 280 DEG C., the mixture is caused to travel forward in the **extruder**, at the end of reaction the mixture is withdrawn continuously from the **extruder**, and is deposited continuously onto a **conveyor** belt, broken up into thermoset flakes, and cooled, the **conveyor** belt having means for cooling and means for detaching the flakes from the belt. The process is particularly suitable for the preparation of fluorescence pigments. Also disclosed are compositions comprising diketo-pyrrolo-pyrrole colorants and certain polyester or polyamide resins as well as a process for the preparation of the compositions.

Classifications:
International (IPC 8-9): C08G12/00 C08G12/24 C08G12/26 C08G59/00 C08G59/18 C08J3/20 C08K5/00 C08K5/3415 C08K5/3447 C08K9/00 C08K9/04 C08L101/00 C08L61/00 C08L61/20 C08L67/00 C08L75/00 C08L75/04 C08L77/00 C08L77/06 C09B57/00 C09B67/00 C09B67/02 C09B67/20 C09B67/22 C09C3/10 C09D11/00 C09D11/10 C09D5/22 C09D7/00 C09K11/02 C09K11/06
International (IPC 1-7): C08G12/24 C08G12/26 C08G12/32 C08G59/18 C08G63/127 C08G63/40 C08G69/08 C08J3/20 C08J5/45 C08K5/00 C08K5/3415 C08K5/3447 C08K9/04 C08L101/00 C08L61/20 C08L67/00 C08L67/02 C08L67/03 C08L75/04 C08L77/00 C08L77/06 C09B57/00 C09B67/02 C09B67/20 C09B67/22 C09C3/10 C09D11/10 C09D17/00 C09D5/22 C09K11/02 C09K11/06
CPC: C08K5/0041 C08K5/3415 C09B67/0061 C09B67/0097 C09D11/50 C09D7/41
US: 252/301.35 523/456 523/508 524/104 524/600 524/601 524/700 524/718 524/720 524/92



Family:

Publication number	Publication date	Application number	Application date
AU199227420 A1	19930506	AU19920027420	19921029
AU666878 B2	19960229	AU19920027420	19921029
CA2081954 AA	19930505	CA19922081954	19921102
DE69106932 D1	19950309	DE19916006932T	19910430
DE69106932 T2	19950608	DE19916006932T	19910430
DE69219074 D1	19970522	DE19926019074T	19921005
DE69219074 T2	19971030	DE19926019074T	19921005
DK0542669 T3	19971020	DK19920810747T	19921005
EP0456610 A1	19911113	EP19910810334	19910430
EP0456610 B1	19950125	EP19910810334	19910430
EP0542669 A1	19930519	EP19920810747	19921005
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ES2101826 T3	19970716	ES19920810747T	19921005
FR2661917 A1	19911115	FR19900005910	19900511
FR2661917 B1	19941021	FR19900005910	19900511
JP4227750 A2	19920817	JP19910105667	19910510
JP3281656 B2	20020513	JP19920294676	19921104
JP5320416 A2	19931203	JP19920294676	19921104
KR19910020125 A	19911219	KR19910007424	19910508
KR100259026 B1	20000615	KR19920020755	19921104
KR930010131 A	19930622	KR19920020755	19921104
KR100241873 B1	20000315	KR19990040014	19990917
US5989453 A	19991123	US19940206160	19940307

Priority:

FR19900005910 19900511 US19910698776 19910513 EP19910402945 19911104
EP19920810747 19921005 US19920969618 19921030 CA19922081954 19921102
KR19920020755 19921104 US19930123037 19930920 US19940206160 19940307

Probable Assignee: CIBA SPECIALTY CHEMICALS CORP

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Assignee(s): CIBA HOLDING INC ; CIBA SPECIALTY CHEMICAL HOLDING INC ; CIBA SPECIALTY CHEMICALS CORP ; CIBA SPECIALTY CHEMICALS HOLDING INC ; CIBA SPECIALTY CHEMICALS HOLDING INC BASEL CH ; MARCQ MICHEL JEAN ; NOUV DE SHIYUMI IND SA SOC ; NOUVELLE DE CHIMIE IND SOC ; NOUVELLE

	DE CHIMIE INDUSTRIELLE SA SOC ; NOUVELLE DE CHIMIE INDUSTRIELLE SOC SA ; NOVARTIS AG ; SOCIETE NOUVELLE DE CHIMIE INDUSTRIELLE S A SAINT JEOIRE EN FAUCIGNY FR ; TANNER MARTIN
Inventor(s): (std):	JEAN ; MAATEIN TANAA ; MARCQ MICHEL ; MARCQ MICHEL J ; MARCQ MICHEL JEAN ; MARCQ MICHEL JEAN MARCQ ; MICHEL JEAN MARCQ ; MICHEL MARCQ ; MITSUSHIERU JIIN MAAKU ; MITSUSHIERU JIIN MARUKU ; TANNER DR MARTIN ; TANNER MARTIN ; TANNER MARTIN DR
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Agent(s):	ASAHI NOBUMITSU; DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; FETHERSTONHAUGH AND CO; FUJINO IKUO; KATO NOBUAKI; MOTOMIYA TERUHISA; OCHI TAKAO; OKABE MASAO; OKABE YUZURU; TAKAHASHI SEIICHIRO; TAKANASHI NORIMICHI; UBUKATA KAZUO; USUI SHINICHI; YOSHIZAWA HIROSHI
Designated states:	BE CH DE DK ES FR GB IT LI NL

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU199227420 A1	19930506	LSPB	+	published / reissued	
AU666878 B2	19960229	LSGT	+	granted / extensions (spc, cpc, pte)	
AU666878 B2	20010517	LSAS	PC	ASSIGNMENT REGISTERED	PartyType: owner OldParty: FORMER OWNER WAS: CIBA SPECIALTY CHEMICALS HOLDING INC., SOCIETE NOUVELLE DE CHIMIE Owner: CIBA SPECIALTY CHEMICALS HOLDING INC.
AU666878 B2	20121029	PEXP		Calculated Patent Term Expiry	
CA2081954 AA	19930505	LSPB	+	published / reissued	
CA2081954 AA	19991102	LSES	+EEER	EXAMINATION REQUEST	
CA2081954 AA	20011102	LSLE	-FZDE	DEAD	
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DE69219074 D1	20000907	LSAS	8327	CHANGE IN THE PERSON/NAME/ADDRESS OF THE PATENT OWNER	Owner: CIBA SPECIALTY CHEMICALS HOLDING INC., BASEL, CH PartyType: owner
DE69219074 D1	20061026		8328	CHANGE IN THE PERSON/NAME/ADDRESS OF THE AGENT	PartyType: representative Representative: PFENNING MEINIG & PARTNER GBR, 80339 MüNCHEN
DE69219074 D1	20070823	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
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DE69219074 T2	20061026		8328	CHANGE IN THE PERSON/NAME/ADDRESS OF THE AGENT	PartyType: representative Representative: PFENNING MEINIG & PARTNER GBR, 80339 MüNCHEN
DE69219074 T2	20070823	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE69219074 T2	20121005	PEXP		Calculated Patent Term Expiry	
DK0542669 T3	19971020	LSGT	+	granted / extensions (spc, cpc, pte)	
DK0542669 T3	20121005	PEXP		Calculated Patent Term Expiry	

EP0456610 A1	19911113	LSPB	+	published / reissued	
EP0456610 A1	19911113	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 19910502
EP0456610 A1	19911113		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: BE CH DE GB IT LI NL
EP0456610 A1	19931103	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 19930921
EP0456610 B1	19950125	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0456610 B1	19950125		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: B1 Country of Ref document: BE CH DE GB IT LI NL
EP0456610 B1	19950214		+ITF	IT: TRANSLATION FOR A EP PATENT FILED	PartyType: owner Owner: BARZANO' E ZANARDO MILANO S.P.A.
EP0456610 B1	19950309		REF	CORRESPONDS TO:	Date of Ref document: 19950309 Ref document number: 69106932 Country of Ref document: DE
EP0456610 B1	19960117	LSGT	+26N	NO OPPOSITION FILED	
EP0456610 B1	19970213	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 19970213 Country of Ref document: NL
EP0456610 B1	19970220	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 19970220 Year of fee payment: 7 Country of Ref document: DE
EP0456610 B1	19970304	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 19970304 Country of Ref document: GB
EP0456610 B1	19970401	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 19970401 Year of fee payment: 7 Country of Ref document: CH
EP0456610 B1	19970606	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 19970606 Country of Ref document: BE
EP0456610 B1	19980430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 19980430 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: BE
EP0456610 B1	19980430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 19980430 Country of Ref document: CH
EP0456610 B1	19980430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 19980430 Country of Ref document: GB
EP0456610 B1	19980430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 19980430 Country of Ref document: LI
EP0456610 B1	19981031	LSLE	-BERE	BE: LAPSED	PartyType: owner Effective date: 19980430 Owner: SOC. NOUVELLE DE CHIMIE INDUSTRIELLE S.A. Ref country code: EP
EP0456610 B1	19981101	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 19981101 Country of Ref document: NL
EP0456610 B1	19981215	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: PL
EP0456610 B1	19981223	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL	Effective date: 19980430 Ref country code: EP

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EP0456610 B1	19990104	LSLE	-NLV4	NL: LAPSED OR ANULLED DUE TO NON-PAYMENT OF THE ANNUAL FEE	Effective date: 19981101 Ref country code: EP
EP0456610 B1	19990202	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 19990202 Country of Ref document: DE
EP0456610 B1	20050430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20050430 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: IT
EP0456610 B1	20110430	PEXP		Calculated Patent Term Expiry	
EP0542669 A1	19930519	LSPB	+	published / reissued	
EP0542669 A1	19930519		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: BE CH DE DK ES FR GB IT LI NL
EP0542669 A1	19931124	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 19930917
EP0542669 A1	19960131	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 19951218
EP0542669 A1	19961227	LSAS	RAP1	PARTY DATA CHANGED (APPLICANT DATA CHANGED OR RIGHTS OF AN APPLICATION TRANSFERRED)	PartyType: owner Owner: SOCIETE NOUVELLE DE CHIMIE INDUSTRIELLE S.A.
EP0542669 A1	19961227	LSAS	RAP1	PARTY DATA CHANGED (APPLICANT DATA CHANGED OR RIGHTS OF AN APPLICATION TRANSFERRED)	Owner: CIBA SC HOLDING AG PartyType: owner
EP0542669 A1	19970312	LSAS	RAP3	PARTY DATA CHANGED (APPLICANT DATA CHANGED OR RIGHTS OF AN APPLICATION TRANSFERRED)	Owner: SOCIETE NOUVELLE DE CHIMIE INDUSTRIELLE S.A. PartyType: owner
EP0542669 A1	19970312	LSAS	RAP3	PARTY DATA CHANGED (APPLICANT DATA CHANGED OR RIGHTS OF AN APPLICATION TRANSFERRED)	PartyType: owner Owner: CIBA SPECIALTY CHEMICALS HOLDING INC.
EP0542669 A1	19970416		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: B1 Country of Ref document: BE CH DE DK ES FR GB IT LI NL
EP0542669 A1	19970430		REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: NV PartyType: representative Ref country code: CH Representative: CIBA-GEIGY AG PATENTABTEILUNG
EP0542669 A1	19970430	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: EP
EP0542669 A1	19970522		REF	CORRESPONDS TO:	Ref document number: 69219074 Date of Ref document: 19970522 Country of Ref document: DE
EP0542669 A1	19970604		+ITF	IT: TRANSLATION FOR A EP PATENT FILED	PartyType: owner Owner: BARZANO' E ZANARDO MILANO S.P.A.
EP0542669 A1	19970716	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: FG2A Ref country code: ES Kind code of Ref document: T3 Ref document number: 2101826 Country of Ref document: ES
EP0542669 A1	19970801		+ET	FR: TRANSLATION FILED	
EP0542669 A1	19971020		REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: T3 Ref country code: DK
EP0542669 A1	19980408	LSGT	+26N	NO OPPOSITION FILED	
EP0542669 A1	20001215	LSAS	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: PUEA Text: SOCIETE NOUVELLE DE CHIMIE INDUSTRIELLE S.A.;CIBA SPECIALTY CHEMICALS HOLDING INC. TRANSFER- CIBA SPECIALTY CHEMICALS HOLDING INC.
EP0542669 A1	20010301	LSAS	NLS	NL: ASSIGNMENTS OF EP-PATENTS	PartyType: owner Ref country code: EP Owner: CIBA SPECIALTY CHEMICALS HOLDING INC.

EP0542669 A1	20010404		REG	REFERENCE TO A NATIONAL CODE	Ref country code: GB Ref legal event code: 732E
EP0542669 A1	20010501	LSAS	REG	REFERENCE TO A NATIONAL CODE	Ref country code: ES Ref legal event code: PC2A
EP0542669 A1	20010622		REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: TQ Ref country code: FR
EP0542669 A1	20020101		REG	REFERENCE TO A NATIONAL CODE	Ref country code: GB Ref legal event code: IF02
EP0542669 A1	20040910	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 13 Payment date: 20040910 Country of Ref document: CH
EP0542669 A1	20040920	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20040920 Year of fee payment: 13 Country of Ref document: DK
EP0542669 A1	20041006	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20041006 Year of fee payment: 13 Country of Ref document: ES
EP0542669 A1	20041130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20041130 Year of fee payment: 13 Country of Ref document: BE
EP0542669 A1	20050914	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 14 Payment date: 20050914 Country of Ref document: FR
EP0542669 A1	20050916	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20050916 Year of fee payment: 14 Country of Ref document: NL
EP0542669 A1	20050920	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20050920 Year of fee payment: 14 Country of Ref document: GB
EP0542669 A1	20050922	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 14 Payment date: 20050922 Country of Ref document: DE
EP0542669 A1	20051006	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20051006 Country of Ref document: ES
EP0542669 A1	20051031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20051031 Country of Ref document: BE
EP0542669 A1	20051031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20051031 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: CH
EP0542669 A1	20051031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20051031 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: DK
EP0542669 A1	20051031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20051031 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: LI
EP0542669 A1	20060606	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: EBP Ref country code: DK
EP0542669 A1	20060615	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: PL Ref country code: CH
EP0542669 A1	20061031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE	Year of fee payment: 15 Payment date: 20061031

				[ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Country of Ref document: IT
EP0542669 A1	20070116	LSLE	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20051006 Ref country code: ES Ref legal event code: FD2A
EP0542669 A1	20070501	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20070501 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: DE
EP0542669 A1	20070501	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20070501 Country of Ref document: NL
EP0542669 A1	20070627	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	Ref country code: EP Effective date: 20061005
EP0542669 A1	20070702	LSLE	-NLV4	NL: LAPSED OR ANULLED DUE TO NON-PAYMENT OF THE ANNUAL FEE	Effective date: 20070501 Ref country code: EP
EP0542669 A1	20070727	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: FR Effective date: 20070629 Ref legal event code: ST
EP0542669 A1	20071124	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20061005 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: GB
EP0542669 A1	20071231	LSLE	-BERE	BE: LAPSED	Ref country code: EP Owner: *CIBA SPECIALTY CHEMICALS HOLDING INC. PartyType: owner Effective date: 20051031
EP0542669 A1	20080430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20061031 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: FR
EP0542669 A1	20090831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20071005 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: IT
EP0542669 B1	19970416	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0542669 B1	20121005	PEXP		Calculated Patent Term Expiry	
ES2101826 T3	19970716	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2101826 T3	19970716	LSGT	+FG2A	DEFINITIVE PROTECTION	Ref document number: 542669 Country of Ref document: ES
ES2101826 T3	20121005	PEXP		Calculated Patent Term Expiry	
FR2661917 A1	19911115	LSPB	+	published / reissued	
FR2661917 B1	19941021	LSGT	+	granted / extensions (spc, cpc, pte)	
FR2661917 B1	20100511	PEXP		Calculated Patent Term Expiry	
JP3281656 B2	20020513	LSGT	+	granted / extensions (spc, cpc, pte)	
JP3281656 B2	20070222	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP3281656 B2	20121104	PEXP		Calculated Patent Term Expiry	
JP4227750 A2	19920817	LSPB	+	published / reissued	
JP4227750 A2	19980804	LSWD	-A300	WITHDRAWAL OF APPLICATION BECAUSE OF NO REQUEST FOR EXAMINATION	Text: JAPANESE INTERMEDIATE CODE: A300 Effective date: 19980806

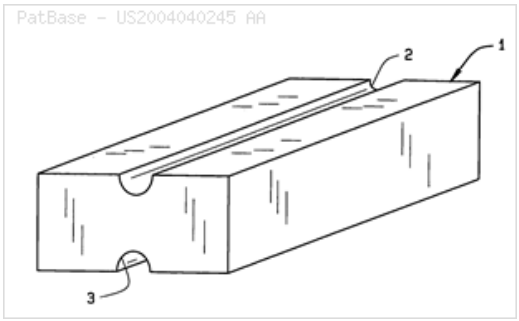
JP5320416 A2	19931203	LSPB	+	published / reissued	
KR100241873 B1	19990917		A107	DIVISIONAL APPLICATION OF PATENT	
KR100241873 B1	19990917	LSES	A201	REQUEST FOR EXAMINATION	
KR100241873 B1	19991102	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR100241873 B1	19991105	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR100241873 B1	20000315	LSGT	+	granted / extensions (spc, cpc, pte)	
KR100241873 B1	20051011	LSFE	FPAY	ANNUAL FEE PAYMENT	Payment date: 20051012 Year of fee payment: 7
KR100241873 B1	20061106	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE	
KR100241873 B1	20190917	PEXP		Calculated Patent Term Expiry	
KR100259026 B1	19970509	LSAS	N231	NOTIFICATION OF CHANGE OF APPLICANT	
KR100259026 B1	19971013	LSES	A201	REQUEST FOR EXAMINATION	
KR100259026 B1	19990625	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR100259026 B1	19990917		A107	DIVISIONAL APPLICATION OF PATENT	
KR100259026 B1	19991102	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR100259026 B1	20000211	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR100259026 B1	20000316	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR100259026 B1	20000615	LSGT	+	granted / extensions (spc, cpc, pte)	
KR100259026 B1	20050214	LSFE	FPAY	ANNUAL FEE PAYMENT	Year of fee payment: 6 Payment date: 20050215
KR100259026 B1	20060317	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE	
KR100259026 B1	20150615	PEXP		Calculated Patent Term Expiry	
KR19910020125 A	19911219	LSPB	+	published / reissued	
KR19910020125 A	19960323	LSES	A201	REQUEST FOR EXAMINATION	
KR19910020125 A	19980518	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR19910020125 A	19980813	LSRV	-E601	DECISION TO REFUSE APPLICATION	
KR930010131 A	19930622	LSPB	+	published / reissued	
US5989453 A	19940609	LSAS	AS	ASSIGNMENT	Owner: SOCIETE NOUVELLE DE CHIMIE INDUSTRIELLE SA, FRANCE OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:MARCQ, MICHEL JEAN;TANNER, MARTIN;REEL/FRAME:007012/0850;SIGNING DATES FROM 19940321 TO 19940414 PartyType: owner
US5989453 A	19990720	LSAS	AS	ASSIGNMENT	PartyType: owner Effective date: 19990507 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:NOVARTIS AG;REEL/FRAME:010104/0065 Owner: CIBA SPECIALTY CHEMICAL HOLDING INC., SWITZERLAND
US5989453 A	19991123	LSGT	+	granted / extensions (spc, cpc, pte)	
US5989453 A	20001201	LSAS	AS	ASSIGNMENT	Owner: CIBA SPECIALTY CHEMICALS CORP, NEW YORK OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:SOCLETE NOUVELLE DE CHIMIE INDUSTRIELLE S.A.;CIBA SPECIALTY CHEMICALS HOLDING INC.;REEL/FRAME:011333/0689;SIGNING DATES FROM 20000822 TO 20000824 PartyType: owner
US5989453 A	20030422	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5989453 A	20070607		REMI	MAINTENANCE FEE	

				REMINDER MAILED	
US5989453 A	20071123	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5989453 A	20071224	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5989453 A	20071224	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5989453 A	20080115	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20071123
US5989453 A	20161123	PEXP		Calculated Patent Term Expiry	

23) Family number: 30668390 (US2004040245 AA)

Title: BUILDING BLOCK AND SYSTEM FOR **MANUFACTURE**

Abstract: A **compressed** building block formed of a pre-mix of fly ash, either of the Class C type, or provided from sugar beet waste lime, are combined with either ground or pulverized wood and/or chips, or with fine sand, having a small amount of Portland cement added thereto, moisturized, and then either **extruded** or **compressed** in a press into the configuration of a block. A fire retardant, and an insecticide, may be added to the composition, to provide the formed block with further beneficial attributes. The blocks may be formed by a system for **extruding** such blocks from the formulation, or they may be formed by means of a hydraulic or other press and pressed into the configuration of the desired block, needed for the construction.



Classifications:
International (IPC 8-9): B21D47/00 B29C47/00 B32B9/00 C04B18/04 C04B18/06 C04B18/08 C04B20/00 C04B28/04 C09K21/00 E04B1/02 E04B1/04 E04B2/04 E04B5/04 E04C1/00 E04C1/39 E04C1/40 E04C2/04 H01M10/34 H01M4/04 H01M4/24 H01M4/32 H01M4/62 H01M4/86 H01M4/88 H01M8/06 H01M8/08
International (IPC 1-7): B29C31/00 B29C43/02 E04B5/04 E04C2/04
CPC: B29C48/022 B29C48/06 B29C48/12 B29K2995/0005 B29L2031/3061 C04B18/08 C04B18/088 C04B28/00 C04B28/04 C04B30/00 E04B2/04 H01M10/345 H01M4/242 H01M4/32 H01M4/62 H01M4/622 H01M4/8615 H01M8/065 H01M8/08 Y02E60/10 Y02E60/50 Y02P70/50 Y02W30/91 Y10T428/249987 E04B2/02 B28C9/00 C04B2111/00129 C04B28/021 E04B2/06 E04B2/10 E04B2002/0206 E04C1/397 B28B1/525 C04B2111/30 Y10S52/09 Y10T29/49623
US: 106/674 106/674S 252/602 252/602S 264/319 264/319S 264/40.1 264/40.100P 29/897.3 29/897.300S 425/149 425/149S 425/406 425/406S 428/318.4 428/318.400P 52/309.17 52/503 52/503P 52/596 52/596P 52/605 52/605P 52/DIG.9 52/DIG.009

Family:

Publication number	Publication date	Application number	Application date
US2004040245 AA	20040304	US20030411551	20030410
US2004217500 AA	20041104	US20040815533	20040401
US2006037271 AA	20060223	US20050238934	20050929
US2007011973 AA	20070118	US20060523228	20060919
US2007277472 AA	20071206	US20070811757	20070612
US2008050578 AA	20080228	US20070899418	20070906
US2009151292 AA	20090618	US20090378428	20090217
US2010064623 AA	20100318	US20090583875	20090827
US8215079 BB	20120710	US20090583875	20090827
WO08156590 A1	20081224	WO2008US07243	20080610

Priority:

US20020371441P 20020411 US20030411551 20030410 US20030411511 20030410
US20040815533 20040401 US20050238934 20050929 US20060523228 20060919
US20070811757 20070612 US20070899418 20070906 US20090378428 20090217
US20090583875 20090827

Probable Assignee: ENCORE BUILDING SOLUTIONS INC

Assignee(s): (std): ENCORE BUILDING SOLUTIONS INC ; SCHWARTZ COLVIN J ; SCHWARTZ GAIL B ; SINCLAIR RAYMOND F ; SINCLAIR ROBERT F ; SINCLAIR ROBERT F SR ; SINCLAIR SR ROBERT F

Inventor(s): (std): SCHWARTZ COLVIN J ; SCHWARTZ GAIL B ; SINCLAIR RAYMOND F ; SINCLAIR ROBERT F ; SINCLAIR ROBERT F SR ; SINCLAIR SR ROBERT F

Inventor(s): COLVIN J SCHWARTZ ; GAIL B SCHWARTZ ; ROBERT F SINCLAIR ; SCHWARTZ COLVIN ; SCHWARTZ GAIL ; SINCLAIR RAYMOND ; SINCLAIR ROBERT

Agent(s): DENK PAUL M; PAUL M; PAUL M DENK

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US2004040245 AA	20040304	LSPB	+	published / reissued	
US2004040245 AA	20070119	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2004040245 AA	20070119		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2004217500 AA	20041104	LSPB	+	published / reissued	
US2004217500 AA	20070103	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2004217500 AA	20070103		-STCB	INFORMATION ON STATUS: APPLICATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION

				DISCONTINUATION	
US2006037271 AA	20060223	LSPB	+	published / reissued	
US2006037271 AA	20080407	LSAS	AS	ASSIGNMENT	Effective date: 20080321 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:SINCLAIR, ROBERT F.;REEL/FRAME:020781/0381 Owner: ENCORE BUILDING SOLUTIONS, INC., MISSOURI PartyType: owner
US2006037271 AA	20090526	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2006037271 AA	20090526		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2007011973 AA	20070118	LSPB	+	published / reissued	
US2007011973 AA	20080407	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:SINCLAIR, ROBERT F.;REEL/FRAME:020781/0381 PartyType: owner Effective date: 20080321 Owner: ENCORE BUILDING SOLUTIONS, INC., MISSOURI
US2007011973 AA	20091205	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2007011973 AA	20091205		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2007277472 AA	20071206	LSPB	+	published / reissued	
US2007277472 AA	20080407	LSAS	AS	ASSIGNMENT	Effective date: 20080321 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:SINCLAIR, ROBERT F.;REEL/FRAME:020781/0381 Owner: ENCORE BUILDING SOLUTIONS, INC., MISSOURI PartyType: owner
US2007277472 AA	20100104	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2007277472 AA	20100104		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2008050578 AA	20080228	LSPB	+	published / reissued	
US2008050578 AA	20080407	LSAS	AS	ASSIGNMENT	PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:SINCLAIR, ROBERT F.;REEL/FRAME:020781/0381 Owner: ENCORE BUILDING SOLUTIONS, INC., MISSOURI Effective date: 20080321
US2008050578 AA	20110713	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2008050578 AA	20110713		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2009151292 AA	20090618	LSPB	+	published / reissued	
US2009151292 AA	20101220	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2009151292 AA	20101220		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2010064623 AA	20100318	LSPB	+	published / reissued	
US2010064623 AA	20120620	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE

US8215079 BB	20120620	LSGT	PAT1	Patented Case	
US8215079 BB	20120710	LSGT	+	granted / extensions (spc, cpc, pte)	
US8215079 BB	20160219		REMI	MAINTENANCE FEE REMINDER MAILED	
US8215079 BB	20160415	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US8215079 BB	20160415		+SULP	SURCHARGE FOR LATE PAYMENT	
US8215079 BB	20200302	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US8215079 BB	20200817	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	Text: PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US8215079 BB	20201005	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US8215079 BB	20231214	PEXP		Calculated Patent Term Expiry (PTA 248 days)	
WO08156590 A1	20081224	LSPB	+	published / reissued	
WO08156590 A1	20090218		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Kind code of Ref document: A1 Ref document number: 08768305 Country of Ref document: EP
WO08156590 A1	20091215	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO08156590 A1	20100728	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	Kind code of Ref document: A1 Ref document number: 08768305 Country of Ref document: EP

24) Family number: 41770319 (US2008099122 AA)

Title: CEMENTITIOUS COMPOSITES HAVING WOOD-LIKE PROPERTIES AND METHODS OF **MANUFACTURE**

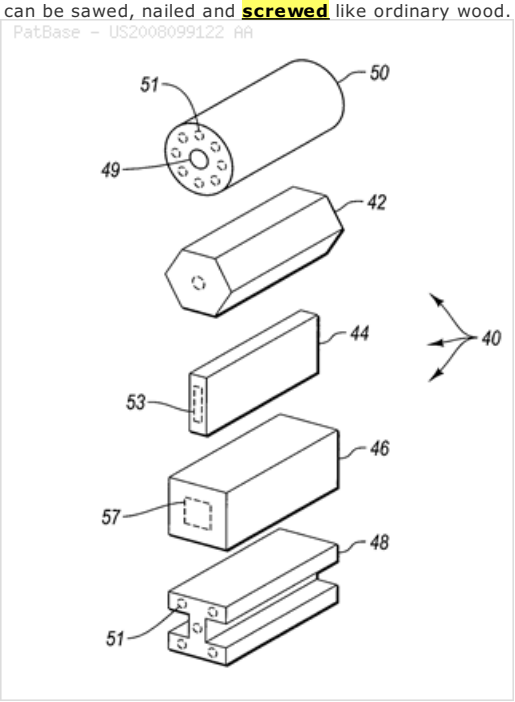
Abstract: A method of **manufacturing** a cementitious composite includes: (1) forming mixing an **extrudable** cementitious composition by first forming a fibrous mixture comprising fibers, water and a rheology modifying agent and then adding hydraulic cement; (2) **extruding** the **extrudable** cementitious composition into a green **extrudate**, wherein the green **extrudate** is characterized by being form-stable and retaining substantially a predefined cross-sectional shape; (3) removing a portion of the water by evaporation to reduce density and increase porosity; and (4) causing or allowing the hydraulic cement to hydrate to form the cementitious composite. Such a process yields a cementitious composite that is suitable for use as a wood substitute. The wood-like building products can be sawed, nailed and **screwed** like ordinary wood.

Classifications:

International (IPC 8-9): B28B B28B1/52 B28B11/00 B28B11/24 B28B17/00 B28B23/02 B28B3/20 B28B3/26 B29B17/00 B29C47/88 B32B1/00 B32B1/08 B32B13/00 B32B13/02 B32B13/14 B32B37/24 C04B C04B14/00 C04B14/38 C04B14/48 C04B16/00 C04B16/02 C04B16/04 C04B16/06 C04B18/06 C04B24/00 C04B26/22 C04B28/02

CPC: B28B1/52 B28B1/525 B28B11/003 B28B11/245 B28B23/02 B28B3/20 B28B3/26 B28B3/2645 B29B17/00 B29C48/06 B29C48/07 B29C48/09 B29C48/12 C04B14/02 C04B14/38 C04B16/02 C04B16/0641 C04B16/12 C04B2103/12 C04B2103/34 C04B2111/00129 C04B2111/00948 C04B2111/30 C04B2111/802 C04B2201/20 C04B28/02 C04B7/00 Y02W30/62 Y02W30/91 Y10T428/13 Y10T428/131 Y10T428/23 Y10T428/29 Y10T428/2933 C04B28/04 Y10T156/10

US: 106/640 106/640S 106/708 106/711 106/711S 106/717 106/717S 106/803 106/805 106/805S 156/244.11 156/60 156/60P 264/171.1 264/177.11 264/177.110S 264/210.2 264/211 264/37.19 264/37.190S 264/638 428/220 428/34.1 428/34.4 428/34.400P 428/357 428/375 428/68 524/5 524/8



Family:

Publication number	Publication date	Application number	Application date
CN102712531 A	20121003	CN201080062095	20101119
CN102712531 B	20150909	CN201080062095	20101119
DE602010031831 D1	20160512	DE201060031831T	20101119
EA025965 B1	20170228	EA20120000773	20101119
EA201200773 A1	20130130	EA20120000773	20101119
EP2504295 A1	20121003	EP20100785558	20101119
EP2504295 B1	20160330	EP20100785558	20101119
HK1176346 A1	20130726	HK20130103331	20130318
HK1176346 B	20160617	HK20130103331	20130318
KR20120099470 A	20120910	KR20127016317	20101119
MX2012005982 A1	20121123	MX20120005982	20101119
RU2012125995 A	20131227	RU20120125995	20101119
TW201132478 A	20111001	TW20100140333	20101123
TWI583518 B	20170521	TW20100140333	20101123
US2008099122 AA	20080501	US20060555646	20061101
US2010136269 AA	20100603	US20090624924	20091124
US2012276310 AA	20121101	US20100511503	20101119
US2015218049 AA	20150806	US20150686648	20150414
WO11066191 A1	20110603	WO2010US57437	20101119

Priority:

US20050872406P 20051101 US20050264104 20051101 US20050264101 20051102
US20060555646 20061101 US20060555645 20061101 US20090624924 20091124
WO2010US57437 20101119 EP20100785558 20101119 US20100511503 20101119
US20120511503 20120523 US20150686648 20150414

Probable Assignee: E KHASHOGGI IND LLC

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Assignee(s): E KASHOGGI IND LLC ; E KHASHOGGI IND ; E KHASHOGGI IND LLC SANTA BARBARA ; E KHASHOGGI INDUSTRIES LLC

Inventor(s): (std): ANDERSEN PER JUST ; HODSON SIMON K ; JUST ANDERSEN PER

Inventor(s): PER JUST ANDERSEN ; SIMON K HODSON

Agent(s): GOFF CHRISTOPHER M ET AL; MUELLER FOTTNER STEINECKE RECHTSANWALTS U PATENTANWALTSPARTNERSCHAFT MBB; PATENT DOCKET DEPARTMENT ARMSTRONG TEASDALE LLP; PATENT DOCKET DEPARTMENT,ARMSTRONG TEASDALE LLP; SMAGGASGALE GILLIAN HELEN; WORKMAN NYDEGGER; ZHONGZI IP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
CN102712531 A	20121003	LSPB	+	published / reissued	
CN102712531 A	20121003	LSPB	+C06	PUBLICATION	
CN102712531 A	20130109		C10	ENTRY INTO SUBSTANTIVE EXAMINATION	
CN102712531 A	20130726		REG	REFERENCE TO A NATIONAL CODE	Ref country code: HK Ref document number: 1176346 Ref legal event code: DE Country of Ref document: HK
CN102712531 B	20150909	LSGT	+	granted / extensions (spc, cpc, pte)	
CN102712531 B	20150909	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN102712531 B	20160617		REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: GR Ref country code: HK Ref document number: 1176346 Country of Ref document: HK
CN102712531 B	20181106	LSLE	-CF01	TERMINATION OF PATENT RIGHT DUE TO NON-PAYMENT OF ANNUAL FEE	
CN102712531 B	20301119	PEXP		Calculated Patent Term Expiry	
DE602010031831 D1	20150918		R079	AMENDMENT OF IPC MAIN CLASS	ClassificationScheme: IPC ClassificationSymbol: B28B0001520000 Text: PREVIOUS MAIN CLASS: C04B0028020000
DE602010031831 D1	20180602	LSDW	-R119	APPLICATION DEEMED WITHDRAWN, OR IP RIGHT LAPSED, DUE TO NON-PAYMENT OF RENEWAL FEE	
EA025965 B1	20170228	LSGT	+	granted / extensions (spc, cpc, pte)	
EA025965 B1	20180731	LSLE	-MM4A	LAPSE OF A EURASIAN PATENT DUE TO NON-PAYMENT OF RENEWAL FEES WITHIN THE TIME LIMIT IN THE FOLLOWING DESIGNATED STATE(S)	Country of Ref document: AM AZ BY KG KZ MD RU TJ TM
EA025965 B1	20301119	PEXP		Calculated Patent Term Expiry	
EA201200773 A1	20130130	LSPB	+	published / reissued	
EP2504295 A1	20121003	LSPB	+	published / reissued	
EP2504295 A1	20121003	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20120528
EP2504295 A1	20121003		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP2504295 A1	20130227		DAX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT (DELETED)	
EP2504295 A1	20131016	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 20130917
EP2504295 A1	20150918		REG	REFERENCE TO A NATIONAL CODE	ClassificationScheme: IPC ClassificationSymbol: B28B0001520000 Ref country code: DE Ref document number: 602010031831 Ref legal event code: R079 Text: PREVIOUS MAIN CLASS:

					C04B0028020000 Country of Ref document: DE
EP2504295 A1	20151028		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: B28B 1/52 20060101AFI20150918BHEP
EP2504295 A1	20151104	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	Effective date: 20151006
EP2504295 B1	20160330	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2504295 B1	20160330		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: B1 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP2504295 B1	20160330	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref country code: GB Ref legal event code: FG4D
EP2504295 B1	20160331	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: EP
EP2504295 B1	20160415	LSNP	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20160415 Kind code of Ref document: T Ref country code: AT Ref document number: 784852 Ref legal event code: REF Country of Ref document: AT
EP2504295 B1	20160420	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref country code: IE Ref legal event code: FG4D
EP2504295 B1	20160512	LSPB	REG	REFERENCE TO A NATIONAL CODE	Ref country code: DE Ref document number: 602010031831 Ref legal event code: R096 Country of Ref document: DE
EP2504295 B1	20160725	LSRV	REG	REFERENCE TO A NATIONAL CODE	Ref country code: LT Ref legal event code: MG4D
EP2504295 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160630 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: NO
EP2504295 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160701 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: GR
EP2504295 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160330 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: FI
EP2504295 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160330 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: HR
EP2504295 B1	20160803		REG	REFERENCE TO A NATIONAL CODE	Effective date: 20160330 Ref country code: NL Ref legal event code: MP
EP2504295 B1	20160815	LSRV	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20160330 Kind code of Ref document: T Ref country code: AT Ref document number: 784852 Ref legal event code: MK05 Country of Ref document: AT
EP2504295 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160330 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: SE
EP2504295 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160330 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT

					Country of Ref document: RS
EP2504295 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160330 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: LV
EP2504295 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160330 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: LT
EP2504295 B1	20160930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160330 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: NL
EP2504295 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160730 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: IS
EP2504295 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160330 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: EE
EP2504295 B1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160330 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: PL
EP2504295 B1	20161123	LSFE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: FR Ref legal event code: PLFP Year of fee payment: 7 Country of Ref document: FR
EP2504295 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160330 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: CZ
EP2504295 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160330 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: SK
EP2504295 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160330 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: RO
EP2504295 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160330 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: AT
EP2504295 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160801 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: PT
EP2504295 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING	Lapsed date: 20160330 NotificationOfLapse: LAPSE

				STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: ES
EP2504295 B1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160330 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: SM
EP2504295 B1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160330 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: BE
EP2504295 B1	20170103	LSRE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: DE Ref document number: 602010031831 Ref legal event code: R097 Country of Ref document: DE
EP2504295 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160330 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: DK
EP2504295 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20161128 Year of fee payment: 7 Country of Ref document: GB
EP2504295 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20161123 Year of fee payment: 7 Country of Ref document: FR
EP2504295 B1	20170131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20161123 Year of fee payment: 7 Country of Ref document: DE
EP2504295 B1	20170228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20161124 Year of fee payment: 7 Country of Ref document: IT
EP2504295 B1	20170308	LSGT	+26N	NO OPPOSITION FILED	Effective date: 20170103
EP2504295 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160330 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: SI
EP2504295 B1	20170630	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: PL
EP2504295 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20161130 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: CH
EP2504295 B1	20170731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20161130 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: LI
EP2504295 B1	20170823	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: IE Ref legal event code: MM4A
EP2504295 B1	20170929	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20161130 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: LU

EP2504295 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20161119 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: IE
EP2504295 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160330 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: CY
EP2504295 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20101119 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO Country of Ref document: HU
EP2504295 B1	20180602	LSDW	REG	REFERENCE TO A NATIONAL CODE	Ref country code: DE Ref document number: 602010031831 Ref legal event code: R119 Country of Ref document: DE
EP2504295 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160330 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: MC
EP2504295 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160330 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: MK
EP2504295 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160330 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: TR
EP2504295 B1	20180725	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	Effective date: 20171119 Ref country code: EP
EP2504295 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160330 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: BG
EP2504295 B1	20180831	LSLE	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20180731 Ref country code: FR Ref legal event code: ST
EP2504295 B1	20180928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20161119 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: MT
EP2504295 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20171130 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: FR
EP2504295 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20171119 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: IT
EP2504295 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION	Lapsed date: 20160330 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE

				FROM NATIONAL OFFICE TO EPO]	FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: AL
EP2504295 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20180602 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: DE
EP2504295 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20171119 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: GB
EP2504295 B1	20301119	PEXP		Calculated Patent Term Expiry	
HK1176346 A1	20130726	LSPB	+	published / reissued	
HK1176346 A1	20330318	PEXP		Calculated Patent Term Expiry	
HK1176346 B	20160617	LSGT	+	granted / extensions (spc, cpc, pte)	
HK1176346 B	20330318	PEXP		Calculated Patent Term Expiry	
KR20120099470 A	20120910	LSPB	+	published / reissued	
KR20120099470 A	20151021	LSES	A201	REQUEST FOR EXAMINATION	
KR20120099470 A	20160826	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20120099470 A	20170321	LSRV	-E601	DECISION TO REFUSE APPLICATION	
MX2012005982 A1	20121123	LSPB	+	published / reissued	
RU2012125995 A	20131227	LSPB	+	published / reissued	
RU2012125995 A	20150520	LSWD	-FA92	ACKNOWLEDGEMENT OF APPLICATION WITHDRAWN (LACK OF SUPPLEMENTARY MATERIALS SUBMITTED)	Effective date: 20150428
TW201132478 A	20111001	LSPB	+	published / reissued	
TWI583518 B	20170521	LSGT	+	granted / extensions (spc, cpc, pte)	
TWI583518 B	20200301	LSLE	-MM4A	ANNULMENT OR LAPSE OF PATENT DUE TO NON-PAYMENT OF FEES	
TWI583518 B	20301123	PEXP		Calculated Patent Term Expiry	
US2008099122 AA	20061103	LSAS	AS	ASSIGNMENT	Effective date: 20061101 Owner: E. KHASHOGGI INDUSTRIES, LLC, CALIFORNIA OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:ANDERSEN, PER JUST, PH.D;HODSON, SIMON K.;REEL/FRAME:018479/0603 PartyType: owner
US2008099122 AA	20080501	LSPB	+	published / reissued	
US2008099122 AA	20101015	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2008099122 AA	20101015		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2010136269 AA	20100208	LSAS	AS	ASSIGNMENT	Effective date: 20090104 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:ANDERSEN, PER JUST;HODSON, SIMON K.;REEL/FRAME:023910/0693 Owner: E. KHASHOGGI INDUSTRIES, LLC,CALIFORNIA

					PartyType: owner
US2010136269 AA	20100603	LSPB	+	published / reissued	
US2010136269 AA	20120830	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2010136269 AA	20120830		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2012276310 AA	20121101	LSPB	+	published / reissued	
US2012276310 AA	20150824	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2012276310 AA	20150824		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2015218049 AA	20150806	LSPB	+	published / reissued	
US2015218049 AA	20150901	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:ANDERSEN, PER JUST;HODSON, SIMON K.;REEL/FRAME:036470/0378 PartyType: owner Effective date: 20090104 Owner: E. KHASHOGGI INDUSTRIES, LLC, CALIFORNIA
US2015218049 AA	20150903		RFE1	Docketed New Case - Ready for Examination	
US2015218049 AA	20170428	LSES	NFA1	Non Final Action Mailed	
US2015218049 AA	20171112	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2015218049 AA	20171112		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
WO11066191 A1	20101119	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 201080062095.X Country of Ref document: CN
WO11066191 A1	20110603	LSPB	+	published / reissued	
WO11066191 A1	20110720		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Ref document number: 10785558 Kind code of Ref document: A1 Country of Ref document: EP
WO11066191 A1	20120523	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 13511503 Country of Ref document: US
WO11066191 A1	20120523	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: MX/A/2012/005982 Country of Ref document: MX
WO11066191 A1	20120524	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO11066191 A1	20120528	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2010785558 Country of Ref document: EP
WO11066191 A1	20120621	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 201200773 Country of Ref document: EA
WO11066191 A1	20120622	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 20127016317 Kind code of Ref document: A Country of Ref document: KR
WO11066191 A1	20120625	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2012125995 Country of Ref document: RU

25) Family number: 72368430 (EP3412422 A1)

Title: INTEGRATED METHOD, SYSTEM AND MACHINE FOR RECYCLING PULPER REJECT INTO RAW MATERIAL APPLICABLE AS INPUT FOR INJECTION MOULDING PRODUCTION OF VARIOUS PRODUCTS OBTAINED FROM SAID METHOD AND MACHINE

Abstract: Described herein is a method for recycling pulper reject into raw material, characterized by comprising the steps of receiving a pulper reject (1) defined by plastic, aluminium, water and impurities from a previous washing/separating process; moisture removing, softening and compacting the pulper reject, obtaining a recycled raw material (1124); and **feeding** a thermoplastic transformation machine (16) with the raw material (1124) to obtain a product.

Classifications:
International (IPC 8-9): B09B3/00 B29B13/00 B29B13/06 B29B17/00 B29B17/02 B29B9/00 B29B9/02 B29C45/17 B29C45/46 B29C48/76 D21B1/04
International (IPC 1-7): B09B3/00 B29B17/02 B29C45/17 B29C45/46 D21B1/04
CPC: B29B13/02 B29B13/06 B29B17/0026 B29B17/02 B29B2017/0244 B29B7/90 B29B9/06 B29B9/12 B29C48/761 B29K2105/26 B29L2031/7166 Y02W30/52 Y02W30/62

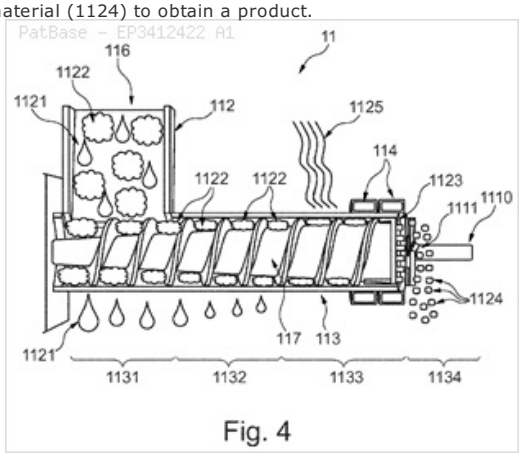


Fig. 4

Family:

Publication number	Publication date	Application number	Application date
BR102017012176 A2	20181226	BR20171012176	20170608
EP3412422 A1	20181212	EP20180176599	20180607
EP3412422 B1	20200513	EP20180176599	20180607
SI3412422 T1	20200930	SI20180030096T	20180607

Priority:
BR20171012176 20170608 EP20180176599 20180607

Probable Assignee: WAVA VENTURES FZCO
Assignee(s): (std): TAMAM TRADING DWC LLC ; WAVA VENTURES FZCO
Inventor(s): (std): ART 6 4 DA LPI 9279 96
Inventor(s): ART 6 DEGREES 4 DEGREES DA LPI 9279 96
Agent(s): LUCKE ANDREAS
Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
BR102017012176 A2	20181226	LSPB	+	published / reissued	
BR102017012176 A2	20181226	LSPB	B03A	PUBLICATION OF AN APPLICATION: PUBLICATION OF A PATENT APPLICATION OR OF A CERTIFICATE OF ADDITION OF INVENTION	
EP3412422 A1	20181212	LSPB	+	published / reissued	
EP3412422 A1	20181212		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP3412422 A1	20181212		+AV	REQUEST FOR VALIDATION OF THE EUROPEAN PATENT	Country of Ref document: KH MA MD TN
EP3412422 A1	20181212		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Country of Ref document: BA ME
EP3412422 A1	20190724	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20190612
EP3412422 A1	20190724		+RBV	DESIGNATED CONTRACTING STATES (CORRECTED)	Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP3412422 A1	20191219		+GRAP	DESPATCH OF COMMUNICATION OF	Text: ORIGINAL CODE: EPIDOSNIGR1

				INTENTION TO GRANT A PATENT	
EP3412422 A1	20200101		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: B29B 17/00 20060101AFI20191126BHEP ClassificationScheme: IPC
EP3412422 A1	20200101		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: B29B 13/06 20060101ALI20191126BHEP
EP3412422 A1	20200101		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: B29C 48/76 20190101ALI20191126BHEP ClassificationScheme: IPC
EP3412422 A1	20200101		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: B29B 9/02 20060101ALI20191126BHEP
EP3412422 A1	20200115	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	Effective date: 20191220
EP3412422 A1	20200327		+GRAS	GRANT FEE PAID	Text: ORIGINAL CODE: EPIDOSNIGR3
EP3412422 A1	20200410		+GRAA	(EXPECTED) GRANT	Text: ORIGINAL CODE: 0009210
EP3412422 A1	20200415	LSAS	RAP1	PARTY DATA CHANGED (APPLICANT DATA CHANGED OR RIGHTS OF AN APPLICATION TRANSFERRED)	PartyType: owner Owner: WAVA VENTURES FZCO.
EP3412422 B1	20200513	LSGT	+	granted / extensions (spc, cpc, pte)	
EP3412422 B1	20200513		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: B1 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP3412422 B1	20200513	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: FG4D Ref country code: GB
EP3412422 B1	20200515	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: EP
EP3412422 B1	20200604	LSPB	REG	REFERENCE TO A NATIONAL CODE	Ref document number: 602018004417 Ref legal event code: R096 Ref country code: DE Country of Ref document: DE
EP3412422 B1	20200615	LSNP	REG	REFERENCE TO A NATIONAL CODE	Kind code of Ref document: T Ref document number: 1269672 Effective date: 20200615 Ref country code: AT Ref legal event code: REF Country of Ref document: AT
EP3412422 B1	20201012	LSRV	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: MG4D Ref country code: LT
EP3412422 B1	20201021		REG	REFERENCE TO A NATIONAL CODE	Ref country code: NL Effective date: 20200513 Ref legal event code: MP
EP3412422 B1	20201030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20200513 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: SE
EP3412422 B1	20201030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20200914 Country of Ref document: PT
EP3412422 B1	20201030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20200513 Country of Ref document: FI
EP3412422 B1	20201030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM	Lapsed date: 20200813 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO

				NATIONAL OFFICE TO EPO]	PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: NO
EP3412422 B1	20201030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20200913 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: IS
EP3412422 B1	20201030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20200513 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: LT
EP3412422 B1	20201030	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200730 Year of fee payment: 3 Country of Ref document: CZ
EP3412422 B1	20201030	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200710 Year of fee payment: 3 Country of Ref document: DE
EP3412422 B1	20201130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20200513 Country of Ref document: LV
EP3412422 B1	20201130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20200813 Country of Ref document: BG
EP3412422 B1	20201130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20200513 Country of Ref document: RS
EP3412422 B1	20201130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20200513 Country of Ref document: HR
EP3412422 B1	20201130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200630 Year of fee payment: 3 Country of Ref document: IT
EP3412422 B1	20201130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200727 Year of fee payment: 3 Country of Ref document: SI
EP3412422 B1	20201231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20200513 Country of Ref document: NL
EP3412422 B1	20201231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20200513 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: AL
EP3412422 B1	20210115	LSPB	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20200513 Ref country code: AT Ref document number: 1269672 Kind code of Ref document:

					T Ref legal event code: UEP Country of Ref document: AT
EP3412422 B1	20380607	PEXP		Calculated Patent Term Expiry	
SI3412422 T1	20200930	LSGT	+	granted / extensions (spc, cpc, pte)	
SI3412422 T1	20380607	PEXP		Calculated Patent Term Expiry	

26) Family number: 62424139 (EP3023539 A1)

Title: METHOD FOR PRODUCING PULP

Abstract: The present application provides a method for producing chemithermomechanical pulp from wood chips, such as softwood chips, the method comprising **feeding** the chips into a pressurized first preheater, preheating the chips to produce softened chips, discharging the softened chips from the first preheater through a first **feeding** device arranged to maintain the overpressure, **feeding** the softened chips to a pressurized second preheater, treating the chips with steam and alkaline chemicals to produce impregnated chips, discharging the impregnated chips from the second preheater through a second **feeding** device arranged to maintain the overpressure, **feeding** the impregnated chips to a refiner, and refining the impregnated chips to produce chemithermomechanical pulp. The present application also provides a device for carrying out said method, a wood pulp product obtained with said method and **paper** product containing said wood pulp product.

Classifications:
International (IPC 8-9): D21B1/02 D21B1/12 D21B1/16 D21C3/00 D21C3/06 D21D1/20 D21H11/02
CPC: D21B1/02 D21B1/021 D21B1/12 D21B1/16 D21C3/00 D21C3/06 D21D1/20 D21H11/02

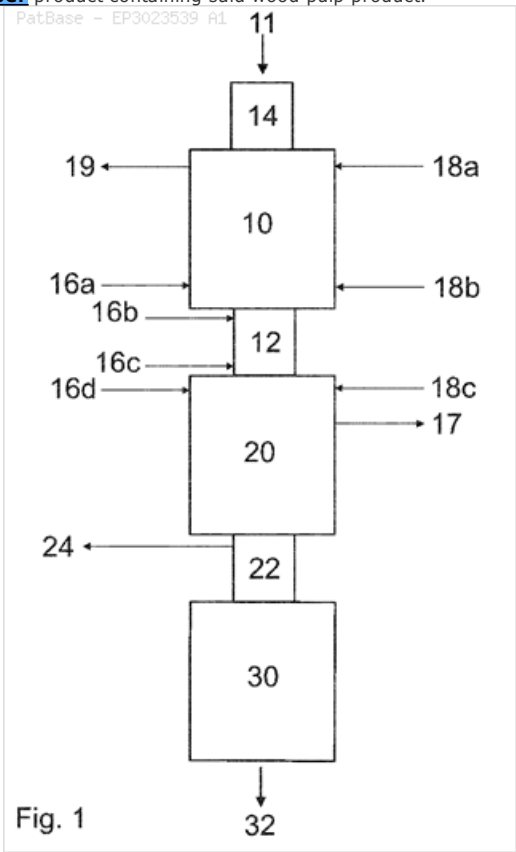


Fig. 1

Family:

Publication number	Publication date	Application number	Application date
DE602015011134 D1	20180614	DE201560011134T	20151012
EP3023539 A1	20160525	EP20150397535	20151012
EP3023539 B1	20180516	EP20150397535	20151012
FI127062 B	20171031	FI20140006005	20141118
FI20146005 A	20160519	FI20140006005	20141118

Priority:
FI20140006005 20141118 EP20150397535 20151012

Probable Assignee: UPM KYMMENE OYJ
Assignee(s): (std): UPM KYMMENE CORP ; UPM KYMMENE OYJ
Inventor(s): (std): LATOMAA ARI ; SUOJANEN VESA ; TIENVIERI TAISTO
Agent(s): BERGGREN OY TAMPERE; OFFICE FREYLINGER SA; TAMPEREEN PATENTTITOIMISTO OY
Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
EP3023539 A1	20160525	LSPB	+	published / reissued	
EP3023539 A1	20160525		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP3023539 A1	20160525		+AV	REQUEST FOR VALIDATION OF THE EUROPEAN PATENT	Country of Ref document: MA
EP3023539 A1	20160525		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Country of Ref document: BA ME

EP3023539 A1	20161207	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20161028
EP3023539 A1	20161207		+RBV	DESIGNATED CONTRACTING STATES (CORRECTED)	Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP3023539 A1	20170322	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 20170217
EP3023539 A1	20180124	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	Effective date: 20180104
EP3023539 B1	20180516	LSGT	+	granted / extensions (spc, cpc, pte)	
EP3023539 B1	20180516		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: B1 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP3023539 B1	20180516	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: FG4D Ref country code: GB
EP3023539 B1	20180531	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: EP
EP3023539 B1	20180613	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: FG4D Ref country code: IE
EP3023539 B1	20180614	LSPB	REG	REFERENCE TO A NATIONAL CODE	Ref country code: DE Ref document number: 602015011134 Ref legal event code: R096 Country of Ref document: DE
EP3023539 B1	20180615	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref country code: AT Kind code of Ref document: T Ref document number: 999673 Effective date: 20180615 Ref legal event code: REF Country of Ref document: AT
EP3023539 B1	20180731		REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: TRGR Ref country code: SE
EP3023539 B1	20180919		REG	REFERENCE TO A NATIONAL CODE	Effective date: 20180516 Ref country code: NL Ref legal event code: MP
EP3023539 B1	20181008	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: T2 Effective date: 20180516 Ref country code: NO
EP3023539 B1	20181010	LSRV	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: MG4D Ref country code: LT
EP3023539 B1	20181025	LSFE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: FR Year of fee payment: 4 Ref legal event code: PLFP
EP3023539 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20180516 Country of Ref document: LT
EP3023539 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20180516 Country of Ref document: ES
EP3023539 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20180516 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: FI
EP3023539 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20180816 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: BG
EP3023539 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20180516 Country of Ref document: NL
EP3023539 B1	20181130	LSLE	-PG25	LAPSED IN A	NotificationOfLapse: LAPSE

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20180516 Country of Ref document: HR
EP3023539 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20180516 Country of Ref document: RS
EP3023539 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20180817 Country of Ref document: GR
EP3023539 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20180516 Country of Ref document: LV
EP3023539 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20180516 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: DK
EP3023539 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20180516 Country of Ref document: EE
EP3023539 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20180516 Country of Ref document: SK
EP3023539 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20180516 Country of Ref document: RO
EP3023539 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20180516 Country of Ref document: CZ
EP3023539 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20180516 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: PL
EP3023539 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20181029 Year of fee payment: 4 Country of Ref document: SE
EP3023539 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 4 Payment date: 20181029 Country of Ref document: NO
EP3023539 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20181029 Year of fee payment: 4 Country of Ref document: DE
EP3023539 B1	20190219	LSRE	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: R097 Ref document number:

					602015011134 Ref country code: DE Country of Ref document: DE
EP3023539 B1	20190228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20180516 Country of Ref document: IT
EP3023539 B1	20190228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20180516 Country of Ref document: SM
EP3023539 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 4 Payment date: 20181025 Country of Ref document: FR
EP3023539 B1	20190424	LSGT	+26N	NO OPPOSITION FILED	Effective date: 20190219
EP3023539 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20180516 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: SI
EP3023539 B1	20190531	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: PL
EP3023539 B1	20190626	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: BE Effective date: 20181031 Ref legal event code: MM
EP3023539 B1	20190628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20181012 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: LU
EP3023539 B1	20190628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20180516 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: MC
EP3023539 B1	20190724	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: MM4A Ref country code: IE
EP3023539 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20181031 Country of Ref document: CH
EP3023539 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20181031 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: LI
EP3023539 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20181031 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: BE
EP3023539 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20181012 Country of Ref document: IE
EP3023539 B1	20191129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20180516 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: AL

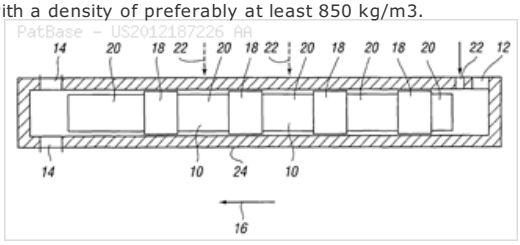
EP3023539 B1	20200131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20181012 Country of Ref document: MT
EP3023539 B1	20200131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 5 Payment date: 20191029 Country of Ref document: SE
EP3023539 B1	20200131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 5 Payment date: 20191029 Country of Ref document: NO
EP3023539 B1	20200131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20191029 Year of fee payment: 5 Country of Ref document: DE
EP3023539 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20191025 Year of fee payment: 5 Country of Ref document: FR
EP3023539 B1	20200331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20180516 Country of Ref document: TR
EP3023539 B1	20200529	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20180516 Country of Ref document: PT
EP3023539 B1	20200630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20180516 Country of Ref document: CY
EP3023539 B1	20200630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20180516 Country of Ref document: MK
EP3023539 B1	20200630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20151012 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO Country of Ref document: HU
EP3023539 B1	20200731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20180916 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: IS
EP3023539 B1	20200902	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	Effective date: 20191012 Ref country code: EP
EP3023539 B1	20201030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20191012 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: GB
EP3023539 B1	20351012	PEXP		Calculated Patent Term Expiry	
FI127062 B	20171031	LSPB	+	published / reissued	
FI127062 B	20171031	LSGT	+FG	PATENT GRANTED	Kind code of Ref document: B Ref document number: 127062 Country of Ref document: FI
FI127062 B	20341118	PEXP		Calculated Patent	

				Term Expiry
FI20146005 A	20160519	LSPB	+	published / reissued

27) Family number: 47904804 (US2012187226 AA)

Title: METHOD AND APPARATUS FOR DEFIBRILLATING CELLULOSE FIBERS

Abstract: The current invention is directed to a method and apparatus for defibrillating cellulose fibers achieved through single or multiple passes of raw or pre-processed cellulose fiber slurry with a preferred solid material consistency range of 35 percent to 55 percent through twin-**screw** fiber processing machines. During this processing operation fiber slurries are optionally further enhanced with additional fiber and mineral additives to optimize performance of the material for specific end purposes. The hyper defibrillated fiber slurry produced can be defined as one reaching a Schopper-Riegler (SR) level between 75 SR and 85 SR and/or producing a pressed, dried board with a density of preferably at least 850 kg/m3.



Classifications:
International (IPC 8-9): B02C19/22 B02C23/18 D21B1/00 D21B1/12 D21B1/16 D21B1/30 D21B1/32 D21B1/34 D21C9/00 D21D1/34 D21H11/18 D21J1/00 D21J3/00
CPC: D21B1/12 D21B1/30 D21B1/32 D21C9/007 D21H11/18 D21J1/00 D21J3/00 Y02W30/64 Y10T29/4998
US: 241/21 241/21P 241/24.19 241/24.29 241/251 241/251S 241/260.1 241/261 29/527.1 29/527.100S

Family:

Publication number	Publication date	Application number	Application date
AU2010264747 AA	20120216	AU20100264747	20100623
CA2766294 AA	20111221	CA20102766294	20100623
CA2766294 C	20171128	CA20102766294	20100623
CN102639786 A	20120815	CN201080038082	20100623
CN102639786 B	20160224	CN201080038082	20100623
EP2446084 A2	20120502	EP20100751585	20100623
JP2012530857 T2	20121206	JP20120516723T	20100623
US2012187226 AA	20120726	US20100379778	20100623
US8833681 BB	20140916	US20100379778	20100623
WO10149711 A2	20101229	WO2010EP58927	20100623
WO10149711 A3	20110428	WO2010EP58927	20100623

Priority:
WO2009NL00141 20090624 WO2010EP58927 20100623

Probable Assignee: BASF SE

Assignee(s): (std): ACHILLI LUCA ; BAMSTEIDL ROBERT ; BASF SE ; BRAMSTEIDL ROBERT ; DEAN TREVOR ; DEAN TREVOR W R ; INTERFACE INT BV ; INTERFACE INTERNAT B V ; TARVEDI KARNIK ; TARVERDI KARNIK

Assignee(s): INTERFACE EUROPEAN MFG BV ; INTERFACE INT BVET AL ; INTERFACE INT ET AL BV ; INTERFACE INTERNATIONAL B V ; INTERFACE INTERNATIONAL B V ET AL ; SOLENIS TECHNOLOGIES CAYMAN LP ; SOLENIS TECHNOLOGIES LP ; ZELFO TECHNOLOGY GMBH

Inventor(s): (std): ACHILLI LUCA ; BAMSTEIDL ROBERT ; BRAMSTEIDL ROBERT ; DEAN TREVOR ; DEAN TREVOR W R ; KARNIK TARVEDI ; LUCA ACHILLI ; ROBERT BAMSTEIDL ; TARVEDI KARNIK ; TARVERDI KARNIK ; TREVOR DEAN

Agent(s): BAILEY WALSH AND CO LLP; BORDEN LADNER GERVAIS LLP; GABLE GOTWALS; GOWAN INTELLECTUAL PROPERTY; MADDERNS PATENT AND TRADE MARK ATTORNEYS; MADDERNS PTY LTD; WOOD GRAHAM

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU2010264747 AA	20101229	LSPB	+	published / reissued	
AU2010264747 AA	20130523	LSAS	PC1	ASSIGNMENT BEFORE GRANT (SECT. 113)	OldParty: FORMER APPLICANT(S): INTERFACE INTERNATIONAL B.V. PartyType: owner Owner: INTERFACE EUROPEAN MANUFACTURING BV
AU2010264747 AA	20130905	LSAS	PC1	ASSIGNMENT BEFORE GRANT (SECT. 113)	Owner: BASF SE PartyType: owner OldParty: FORMER APPLICANT(S): ZELFO TECHNOLOGY GMBH
AU2010264747 AA	20150122	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
CA2766294 AA	20111221	LSPB	+	published / reissued	
CA2766294 AA	20150416	LSES	+EEER	EXAMINATION REQUEST	Effective date: 20150410

CA2766294 C	20171128	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2766294 C	20300623	PEXP		Calculated Patent Term Expiry	
CN102639786 A	20120815	LSPB	+	published / reissued	
CN102639786 A	20120815	LSPB	+C06	PUBLICATION	
CN102639786 A	20121003		C10	ENTRY INTO SUBSTANTIVE EXAMINATION	
CN102639786 A	20130612	LSAS	ASS	SUCCESSION OR ASSIGNMENT OF PATENT RIGHT	PartyType: owner OldParty: FORMER OWNER: INTERFACE INTERNATIONAL BV Owner: INTERFACE EUROPE MANUFACTURING BV Effective date: 20130520
CN102639786 A	20130612	LSAS	ASS	SUCCESSION OR ASSIGNMENT OF PATENT RIGHT	Effective date: 20130520 OldParty: FORMER OWNER: INTERFACE EUROPE MANUFACTURING BV Owner: ZERFU TECHNOLOGY CO., LTD. PartyType: owner
CN102639786 A	20130612	LSAS	C41	TRANSFER OF PATENT APPLICATION OR PATENT RIGHT OR UTILITY MODEL	
CN102639786 A	20140903	LSAS	ASS	SUCCESSION OR ASSIGNMENT OF PATENT RIGHT	Owner: BASF SE PartyType: owner OldParty: FORMER OWNER: ZERFU TECHNOLOGY CO., LTD. Effective date: 20140813
CN102639786 A	20140903	LSAS	C41	TRANSFER OF PATENT APPLICATION OR PATENT RIGHT OR UTILITY MODEL	
CN102639786 B	20160224	LSGT	+	granted / extensions (spc, cpc, pte)	
CN102639786 B	20160224	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN102639786 B	20300623	PEXP		Calculated Patent Term Expiry	
EP2446084 A2	20120502	LSPB	+	published / reissued	
EP2446084 A2	20120502	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20120123
EP2446084 A2	20120502		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A2 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR
EP2446084 A2	20121003		DAX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT (DELETED)	
EP2446084 A2	20130522	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	Owner: INTERFACE EUROPEAN MANUFACTURING B.V. PartyType: owner
EP2446084 A2	20130529	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	Owner: ZELFO TECHNOLOGY GMBH PartyType: owner
EP2446084 A2	20130925	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	Owner: BASF SE PartyType: owner
EP2446084 A2	20170412	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 20170314
EP2446084 A2	20191009	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	Owner: SOLENIS TECHNOLOGIES CAYMAN, L.P. PartyType: owner
JP2012530857 T2	20121206	LSPB	+	published / reissued	

JP2012530857 T2	20130618	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	Text: JAPANESE INTERMEDIATE CODE: A621 Effective date: 20130617
JP2012530857 T2	20130809	LSAS	A711	NOTIFICATION OF CHANGE IN APPLICANT	Effective date: 20130808 Text: JAPANESE INTERMEDIATE CODE: A711
JP2012530857 T2	20130827	LSRE	A521	WRITTEN AMENDMENT	Text: JAPANESE INTERMEDIATE CODE: A821 Effective date: 20130808
JP2012530857 T2	20131212	LSWD	-A761	WRITTEN WITHDRAWAL OF APPLICATION	Effective date: 20131211 Text: JAPANESE INTERMEDIATE CODE: A761
US2012187226 AA	20120726	LSPB	+	published / reissued	
US2012187226 AA	20130320	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:INTERFACE EUROPEAN MANUFACTURING BV;REEL/FRAME:030055/0697 PartyType: owner Effective date: 20121219 Owner: ZELFO TECHNOLOGY GMBH, GERMANY
US2012187226 AA	20130320	LSAS	AS	ASSIGNMENT	Owner: INTERFACE EUROPEAN MANUFACTURING BV, NETHERLANDS Effective date: 20121218 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:INTERFACE INTERNATIONAL BV;REEL/FRAME:030055/0745 PartyType: owner
US2012187226 AA	20130815	LSAS	AS	ASSIGNMENT	PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ZELFO TECHNOLOGY GMBH;REEL/FRAME:031169/0669 Owner: BASF SE, GERMANY Effective date: 20130410
US2012187226 AA	20140827	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US8833681 BB	20120702	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:DEAN, TREVOR W R;TARVERDI, KARNIK;BRAMSTEIDL, ROBERT;AND OTHERS;SIGNING DATES FROM 20120607 TO 20120611;REEL/FRAME:028534/0560 PartyType: owner Owner: INTERFACE INTERNATIONAL B.V., NETHERLANDS
US8833681 BB	20140827	LSGT	PAT1	Patented Case	
US8833681 BB	20140916	LSGT	+	granted / extensions (spc, cpc, pte)	
US8833681 BB	20180306	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	Year of fee payment: 4
US8833681 BB	20201223	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:BASF SE;REEL/FRAME:054735/0659 PartyType: owner Effective date: 20190315 Owner: SOLENIS TECHNOLOGIES, L.P., DELAWARE
US8833681 BB	20310323	PEXP		Calculated Patent Term Expiry (PTA 273 days and a terminal disclaimer has been filed)	
WO10149711 A2	20100623	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 201080038082.9 Country of Ref document: CN
WO10149711 A2	20101229	LSPB	+	published / reissued	
WO10149711 A2	20110216		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Kind code of Ref document: A2 Ref document number: 10751585 Country of Ref document: EP

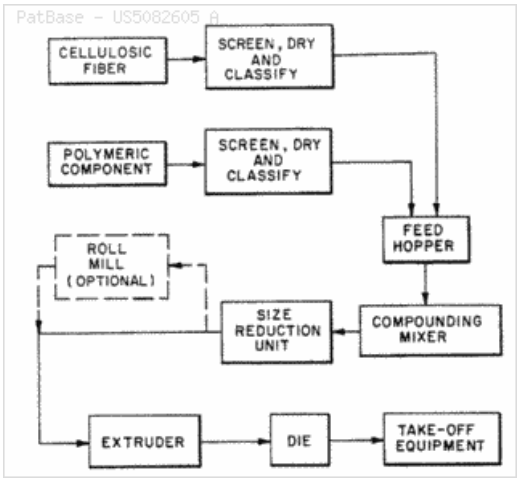
WO10149711 A3	20111221	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2766294 Country of Ref document: CA
WO10149711 A3	20111222	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2012516723 Country of Ref document: JP
WO10149711 A3	20111227	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO10149711 A3	20120123	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2010751585 Country of Ref document: EP
WO10149711 A3	20120124	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2010264747 Country of Ref document: AU
WO10149711 A3	20120216	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 2010264747 Date of Ref document: 20100623 Country of Ref document: AU
WO10149711 A3	20120406	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 13379778 Country of Ref document: US

28) Family number: 10842446 (US5082605 A)

Title: METHOD FOR MAKING COMPOSITE MATERIAL

Abstract: A method for making a composite material including a discontinuous phase of cellulosic fiber encapsulated in and bonded to a continuous phase of a polymeric component containing a major portion of polyethylene by mixing the cellulosic fiber and polymeric component while raising the temperature of the mixture to the encapsulation point, maintaining the encapsulated material within the encapsulation range while reducing the particle size, and thereafter **extruding** the material while controlling its temperature within the encapsulation range and substantially aligning the fibers in the flow direction until the material contacts a heated die.

Classifications:
International (IPC 8-9): B29B17/00 B29C47/00 B29C47/10 B29C70/00 B29C70/10 B29C70/14 B29C70/58
International (IPC 1-7): A65G15/14 B23D25/04 B29B7/32 B29B7/90 B29C47/02 B29C47/34 B29C47/92 B32B5/16
CPC: B29B17/0026 B29C48/00 B29C48/022 B29C48/08 B29C48/2886 B29C70/14 B29C70/58 B29K2023/0633 B29K2105/06 B29K2105/12 B29K2105/16 B29K2105/26 B29K2711/14 Y02W30/62 B29C48/03 Y10S264/914 Y10S264/92 Y10S425/046 Y10T83/4664 B29C48/07 B29C48/288 Y10T83/4757 Y10T83/8769 Y10T83/8772 B29K2023/06 Y10T428/253 Y10T428/2913 Y10T428/2938 Y10T428/31989
US: 193/35.00R 193/35R 198/604 198/620 198/782 264/108 264/118 264/119 264/122 264/148 264/174 264/176.1 264/211.12 264/237 264/348 264/349 264/40.6 264/914 264/920 264/DIG.69 366/81 425/131.1 425/142 425/199 425/202 425/205 425/208 425/308 425/377 425/382.3 425/382.4 425/DIG.46 428/15 428/326 428/364 428/378 428/537.1 83/289 83/318 83/578 83/580 425/DIG.046



Family:

Publication number	Publication date	Application number	Application date
US5088910 A	19920218	US19900491061	19900314
US5096046 A	19920317	US19900530839	19900530
US5082605 A	19920121	US19900530840	19900530
US5096406 A	19920317	US19900531234	19900531
US5213021 A	19930525	US19910799713	19911126
US5759680 A	19980602	US19930008886	19930122

Priority:

US19900491061 19900314 US19900530840 19900530 US19900530839 19900530
US19900530837 19900530 US19900530910 19900530 US19900531234 19900531
US19910799713 19911126 US19930008886 19930122

Probable Assignee: BANK OF OKLAHOMA NA

Assignee(s): (std): ADVANCED ENVIRONMENTAL RECYCLI ; ADVANCED ENVIRONMETAL RECYCLIN

Assignee(s): ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES INC ; ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES INC A CORP OF AR ; ADVANCED ENVIRONMETAL RECYCLING TECHNOLOGIES INC ; ALLSTATE INSURANCE CO ; BANK OF OKLAHOMA NA ; HIG AERT LLC ADMINISTRATIVE AGENT AS ; REGIONS BANK

Inventor(s): (std): BROOKS JOE G ; GOFORTH BILLY D ; GOFORTH CHARLES L

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
US5082605 A	19900827	LSAS	AS	ASSIGNMENT	Owner: ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST.;ASSIGNORS:BROOKS, JOE G.;GOFORTH, CHARLES L.;REEL/FRAME:005416/0727 Effective date: 19900821
US5082605 A	19920110	LSGT	PAT1	Patented Case	
US5082605 A	19920110	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US5082605 A	19920121	LSGT	+	granted / extensions (spc, cpc, pte)	
US5082605 A	19950718	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5082605 A	19990817		REMI	MAINTENANCE FEE REMINDER MAILED	
US5082605 A	19991118	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US5082605 A	19991118		+SULP	SURCHARGE	

				FOR LATE PAYMENT	
US5082605 A	20030324	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US5082605 A	20031031	LSAS	AS	ASSIGNMENT	PartyType: owner Effective date: 20031001 OldParty: SECURITY AGREEMENT;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC;REEL/FRAME:014634/0228 Owner: REGIONS BANK, ARKANSAS
US5082605 A	20031031	LSAS	AS	ASSIGNMENT	OldParty: SECURITY AGREEMENT;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC.;REEL/FRAME:014634/0245 Effective date: 20031009 Owner: ALLSTATE INSURANCE COMPANY, ILLINOIS PartyType: owner
US5082605 A	20071221	LSAS	AS	ASSIGNMENT	PartyType: owner Effective date: 20071201 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC;REEL/FRAME:020507/0461 Owner: ALLSTATE INSURANCE COMPANY, ILLINOIS
US5082605 A	20071221	LSAS	AS	ASSIGNMENT	Effective date: 20071201 Owner: BANK OF OKLAHOMA, N.A., OKLAHOMA OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC;REEL/FRAME:020507/0461 PartyType: owner
US5082605 A	20100530	PEXP		Calculated Patent Term Expiry	
US5082605 A	20170310	LSAS	AS	ASSIGNMENT	Effective date: 20110316 OldParty: RELEASE BY SECURED PARTY;ASSIGNOR:REGIONS BANK;REEL/FRAME:041542/0239 Owner: ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC PartyType: owner
US5088910 A	19900314	LSAS	AS	ASSIGNMENT	Owner: ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST.;ASSIGNORS:GOFORTH, BILLY D.;GORFORTH, CHARLES L.;BROOKS, JOE G.;REEL/FRAME:005255/0070 Effective date: 19900313
US5088910 A	19920205	LSGT	PAT1	Patented Case	
US5088910 A	19920205	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US5088910 A	19920218	LSGT	+	granted / extensions (spc, cpc, pte)	
US5088910 A	19930907	LSRE	CC	CERTIFICATE OF CORRECTION	
US5088910 A	19950818	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5088910 A	19990818	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US5088910 A	20030417	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US5088910 A	20031031	LSAS	AS	ASSIGNMENT	OldParty: SECURITY AGREEMENT;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC;REEL/FRAME:014634/0228 PartyType: owner Effective date: 20031001 Owner: REGIONS BANK, ARKANSAS
US5088910 A	20031031	LSAS	AS	ASSIGNMENT	OldParty: SECURITY AGREEMENT;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC.;REEL/FRAME:014634/0245 Owner: ALLSTATE INSURANCE COMPANY, ILLINOIS Effective date: 20031009 PartyType: owner
US5088910 A	20071221	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ADVANCED

					ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC;REEL/FRAME:020507/0461 Owner: ALLSTATE INSURANCE COMPANY, ILLINOIS PartyType: owner Effective date: 20071201
US5088910 A	20071221	LSAS	AS	ASSIGNMENT	Effective date: 20071201 PartyType: owner Owner: BANK OF OKLAHOMA, N.A., OKLAHOMA OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC;REEL/FRAME:020507/0461
US5088910 A	20100314	PEXP		Calculated Patent Term Expiry	
US5088910 A	20170310	LSAS	AS	ASSIGNMENT	Effective date: 20110316 Owner: ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC PartyType: owner OldParty: RELEASE BY SECURED PARTY;ASSIGNOR:REGIONS BANK;REEL/FRAME:041542/0239
US5096046 A	19920304	LSGT	PAT1	Patented Case	
US5096046 A	19920304	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US5096046 A	19920317	LSGT	+	granted / extensions (spc, cpc, pte)	
US5096046 A	19950911	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5096046 A	19990916	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US5096046 A	20030911	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US5096046 A	20031031	LSAS	AS	ASSIGNMENT	PartyType: owner Effective date: 20031001 OldParty: SECURITY AGREEMENT;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC;REEL/FRAME:014634/0228 Owner: REGIONS BANK, ARKANSAS
US5096046 A	20031031	LSAS	AS	ASSIGNMENT	Effective date: 20031009 OldParty: SECURITY AGREEMENT;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC.;REEL/FRAME:014634/0245 Owner: ALLSTATE INSURANCE COMPANY, ILLINOIS PartyType: owner
US5096046 A	20071221	LSAS	AS	ASSIGNMENT	Owner: ALLSTATE INSURANCE COMPANY, ILLINOIS PartyType: owner Effective date: 20071201 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC;REEL/FRAME:020507/0461
US5096046 A	20071221	LSAS	AS	ASSIGNMENT	Effective date: 20071201 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC;REEL/FRAME:020507/0461 Owner: BANK OF OKLAHOMA, N.A., OKLAHOMA PartyType: owner
US5096046 A	20100530	PEXP		Calculated Patent Term Expiry	
US5096046 A	20110322	LSAS	AS	ASSIGNMENT	Effective date: 20110318 OldParty: SECURITY AGREEMENT;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC.;REEL/FRAME:026000/0071 Owner: H.I.G. AERT, L.L.C., AS ADMINISTRATIVE AGENT, MASS PartyType: owner
US5096046 A	20170310	LSAS	AS	ASSIGNMENT	PartyType: owner Effective date: 20110316 OldParty: RELEASE BY SECURED PARTY;ASSIGNOR:REGIONS BANK;REEL/FRAME:041542/0239 Owner: ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC

US5096406 A	19900827	LSAS	AS	ASSIGNMENT	Effective date: 19900821 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST.;ASSIGNORS:BROOKS, JOE G.;GOFORTH, BILLY D.;GOFORTH, CHARLES L.;REEL/FRAME:005416/0735 Owner: ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC PartyType: owner
US5096406 A	19920305	LSGT	PAT1	Patented Case	
US5096406 A	19920305	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US5096406 A	19920317	LSGT	+	granted / extensions (spc, cpc, pte)	
US5096406 A	19950911	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5096406 A	19990917	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US5096406 A	20030911	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US5096406 A	20071221	LSAS	AS	ASSIGNMENT	Effective date: 20071201 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC;REEL/FRAME:020507/0461 Owner: ALLSTATE INSURANCE COMPANY, ILLINOIS PartyType: owner
US5096406 A	20071221	LSAS	AS	ASSIGNMENT	Effective date: 20071201 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC;REEL/FRAME:020507/0461 Owner: BANK OF OKLAHOMA, N.A., OKLAHOMA PartyType: owner
US5096406 A	20100531	PEXP		Calculated Patent Term Expiry	
US5096406 A	20110322	LSAS	AS	ASSIGNMENT	Effective date: 20110318 OldParty: SECURITY AGREEMENT;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC.;REEL/FRAME:026000/0071 Owner: H.I.G. AERT, L.L.C., AS ADMINISTRATIVE AGENT, MASS PartyType: owner
US5213021 A	19930512	LSGT	PAT1	Patented Case	
US5213021 A	19930512	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US5213021 A	19930525	LSGT	+	granted / extensions (spc, cpc, pte)	
US5213021 A	19961125	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5213021 A	20001122	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US5213021 A	20031031	LSAS	AS	ASSIGNMENT	Effective date: 20031001 OldParty: SECURITY AGREEMENT;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC;REEL/FRAME:014634/0228 Owner: REGIONS BANK, ARKANSAS PartyType: owner
US5213021 A	20031031	LSAS	AS	ASSIGNMENT	Effective date: 20031009 OldParty: SECURITY AGREEMENT;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC.;REEL/FRAME:014634/0245 Owner: ALLSTATE INSURANCE COMPANY, ILLINOIS PartyType: owner
US5213021 A	20041124	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US5213021 A	20071221	LSAS	AS	ASSIGNMENT	Effective date: 20071201 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC;REEL/FRAME:020507/0461 Owner: ALLSTATE INSURANCE COMPANY, ILLINOIS

					PartyType: owner
US5213021 A	20071221	LSAS	AS	ASSIGNMENT	Effective date: 20071201 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC;REEL/FRAME:020507/0461 Owner: BANK OF OKLAHOMA, N.A., OKLAHOMA PartyType: owner
US5213021 A	20110322	LSAS	AS	ASSIGNMENT	Effective date: 20110318 OldParty: SECURITY AGREEMENT;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC.;REEL/FRAME:026000/0071 Owner: H.I.G. AERT, L.L.C., AS ADMINISTRATIVE AGENT, MASS PartyType: owner
US5213021 A	20111126	PEXP		Calculated Patent Term Expiry	
US5213021 A	20170310	LSAS	AS	ASSIGNMENT	Effective date: 20110316 OldParty: RELEASE BY SECURED PARTY;ASSIGNOR:REGIONS BANK;REEL/FRAME:041542/0239 Owner: ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC PartyType: owner
US5759680 A	19980526	LSGT	PAT1	Patented Case	
US5759680 A	19980526	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US5759680 A	19980602	LSGT	+	granted / extensions (spc, cpc, pte)	
US5759680 A	19990713	LSRE	CC	CERTIFICATE OF CORRECTION	
US5759680 A	20010828	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5759680 A	20031031	LSAS	AS	ASSIGNMENT	Effective date: 20031001 Owner: REGIONS BANK, ARKANSAS PartyType: owner OldParty: SECURITY AGREEMENT;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC;REEL/FRAME:014634/0228
US5759680 A	20031031	LSAS	AS	ASSIGNMENT	Effective date: 20031009 OldParty: SECURITY AGREEMENT;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC.;REEL/FRAME:014634/0245 Owner: ALLSTATE INSURANCE COMPANY, ILLINOIS PartyType: owner
US5759680 A	20051104	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US5759680 A	20071221	LSAS	AS	ASSIGNMENT	Effective date: 20071201 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC;REEL/FRAME:020507/0461 Owner: ALLSTATE INSURANCE COMPANY, ILLINOIS PartyType: owner
US5759680 A	20071221	LSAS	AS	ASSIGNMENT	PartyType: owner Effective date: 20071201 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC;REEL/FRAME:020507/0461 Owner: BANK OF OKLAHOMA, N.A., OKLAHOMA
US5759680 A	20091104	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US5759680 A	20110322	LSAS	AS	ASSIGNMENT	Owner: H.I.G. AERT, L.L.C., AS ADMINISTRATIVE AGENT, MASS Effective date: 20110318 OldParty: SECURITY AGREEMENT;ASSIGNOR:ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC.;REEL/FRAME:026000/0071 PartyType: owner
US5759680 A	20121108	LSAS	AS	ASSIGNMENT	Effective date: 20121108 Owner: ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC

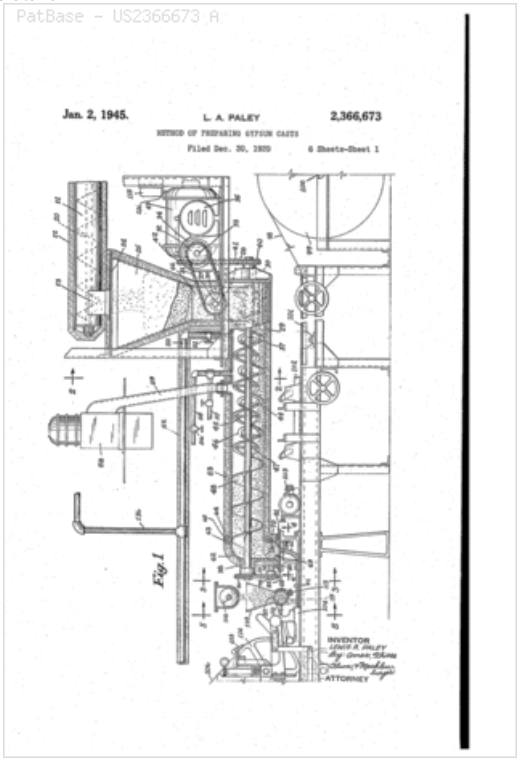
					OldParty: RELEASE BY SECURED PARTY;ASSIGNOR:BANK OF OKLAHOMA, N.A.;REEL/FRAME:029267/0639 PartyType: owner
US5759680 A	20121108	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF SECURITY INTEREST;ASSIGNOR:ALLSTATE INSURANCE COMPANY;REEL/FRAME:029275/0555 PartyType: owner Effective date: 20121108 Owner: ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC
US5759680 A	20121115	LSAS	AS	ASSIGNMENT	Effective date: 20121115 OldParty: RELEASE BY SECURED PARTY;ASSIGNOR:BANK OF OKLAHOMA, N.A.;REEL/FRAME:029307/0044 Owner: ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC PartyType: owner
US5759680 A	20121115	LSAS	AS	ASSIGNMENT	Effective date: 20121114 OldParty: CONFIRMATORY ASSIGNMENT OF SECURITY INTEREST;ASSIGNOR:REGIONS BANK;REEL/FRAME:029309/0403 PartyType: owner Owner: BANK OF OKLAHOMA, N.A., OKLAHOMA
US5759680 A	20150602	PEXP		Calculated Patent Term Expiry	
US5759680 A	20170310	LSAS	AS	ASSIGNMENT	PartyType: owner Effective date: 20110316 OldParty: RELEASE BY SECURED PARTY;ASSIGNOR:REGIONS BANK;REEL/FRAME:041542/0239 Owner: ADVANCED ENVIRONMENTAL RECYCLING TECHNOLOGIES, INC

29) Family number: 21578775 (US2366673 A)

Title: METHOD OF PREPARING GYPSUM CASTS

Abstract: 1. The method of preparing gypsum casts, which comprises mixing calcined gypsum with 25% to 60% by weight of water to form a plastic mass, shaping said mass to the desired form, and incorporating a sufficient quantity of dry powdered calcined gypsum with at least part of said mass to withdraw a substantial portion uf free Water from said mass and to permit the entire mass to set to a solid cast with little or no free moisture.

Classifications:
International (IPC 8-9): A61F13/04 B28B19/00
International (IPC 1-7): B28B3/22 C04B11/00
CPC: A61F13/04 B28B19/0092
US: 106/783 156/346 156/43 366/147 366/186 366/320 425/4C 425/4R



Family:

Publication number	Publication date	Application number	Application date
US2366673 A	19450102	US19390311771	19391230

Priority:
US19390311771 19391230

Probable Assignee:	UNITED STATES GYPSUM CO
Assignee(s): (std):	UNITED STATES GYPSUM CO
Assignee(s):	UNITED STATES GYPSUM COMPANY
Inventor(s): (std):	PALEY LEWIS A

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
US2366673 A	19450102	LSGT	+	granted / extensions (spc, cpc, pte)	

30) Family number: 49612787 (US2011230111 AA)

Title: FIBERS CONTAINING ADDITIVES FOR USE IN FIBROUS INSULATION

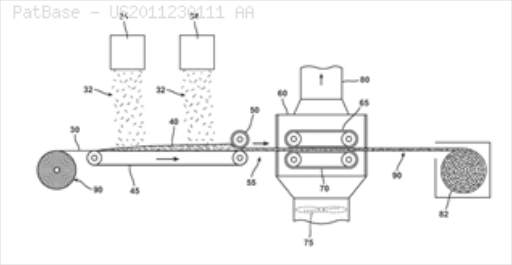
Abstract: Polymer fibers having therein at least one infrared attenuating agent is provided. The infrared attenuating agent is at least substantially evenly distributed throughout the polymeric material forming the polymer fibers. In exemplary embodiments, the infrared attenuating agents have a thickness in at least one dimension of less than about 100 nanometers. Alternatively, the polymer fibers are bicomponent fibers formed of a core and a sheath substantially surrounding the core and the infrared attenuating agent is at least substantially evenly distributed throughout the sheath. The modified polymer fibers may be used to form insulation products that utilize less polymer material and subsequently reduce **manufacturing** costs. The insulation products formed with the modified polymers have improved thermal properties compared to insulation products formed of only non-modified polymer fibers. Additionally, the insulation product is compatible with bio-based binders. Methods of forming the modified polymer fibers and insulation products are also provided.

Classifications:

International (IPC 8-9)**:** B27N3/04 B32B27/02 B32B5/02 B82Y30/00 C08L101/00 D01D5/08 D01D5/34 D02G3/36 D04H3/12

CPC: B27N3/04 B29C48/49 B29C48/535 B82Y30/00 D01F1/106 D01F8/04 D04H1/4382 D04H1/587 D04H1/732 E04B1/7662 E04B2001/7687 E04B2001/7691 Y10T428/2927 Y10T428/2929 Y10T442/638 Y10T442/64 Y10T442/641 Y10T442/697 Y10T442/699

US: 264/109 264/109S 264/115 264/115S 264/172.15 264/172.150S 264/172.17 264/172.170S 428/372 428/372S 428/373 428/373S 442/362 442/362P 442/363 442/363S 442/364 442/364S 442/415 442/415S 442/417 442/417S 524/1 524/1S 977/734 977/734S 977/750 977/750S 977/752 977/752S 977/762 977/762S



Family:

Publication number	Publication date	Application number	Application date
US2011230111 AA	20110922	US20100727776	20100319

Priority:

US20100727776 20100319

Probable Assignee: OWENS CORNING INTELLECTUAL CAPITAL LLC

Assignee(s): (std)**:** ALTER HARRY A ; DELAVIZ YADOLLAH ; TILTON JEFFREY A ; WEIR CHARLES R

Assignee(s): OWENS CORNING INTELLECTUAL CAPITAL LLC

Inventor(s): (std)**:** ALTER HARRY A ; DELAVIZ YADOLLAH ; TILTON JEFFREY A ; WEIR CHARLES R

Legal status (INPADOC)

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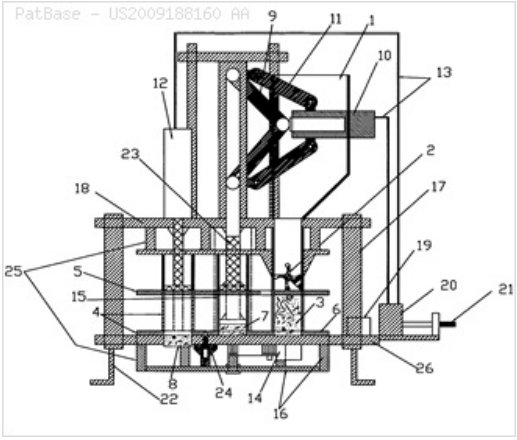
Patent	Date recorded	Event group	Code	Event	Details
US2011230111 AA	20100924	LSAS	AS	ASSIGNMENT	Owner: OWENS CORNING INTELLECTUAL CAPITAL, LLC, OHIO OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:WEIR, CHARLES R.;ALTER, HARRY A.;DELAVIZ, YADOLLAH;AND OTHERS;SIGNING DATES FROM 20100601 TO 20100622;REEL/FRAME:025036/0963 PartyType: owner
US2011230111 AA	20110922	LSPB	+	published / reissued	
US2011230111 AA	20130510	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2011230111 AA	20130510		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION

31) Family number: 43553865 (US2009188160 AA)

Title: METHOD AND DEVICE TO COMPACT BIOMASS

Abstract: The biomass log fuel has not been commercialized due to difficulties in mass-producing the logs at low cost. The current invention solves this problem by introducing a three-step compaction process: pre-compaction, final compaction, and ejection. While a rotary feeder/compressor is used to perform pre-compaction, a ram driven by a toggle mechanism performs final compaction rapidly and efficiently. A press implementing the three-step compaction is designed and described. This invention should improve the cost-effectiveness of biomass solid fuel or feedstock.Biomass materials such as yard waste, corn stover and switchgrass are compacted at high pressure to form dense "biomass logs" without binder or heat. Biomass logs serve as a solid fuel for heating buildings, and as feedstock for bio-reactors for liquefaction or gasification. Densifying the uncompacted fluffy biomass reduces space needed for storage, decreases the number of vehicles needed to transport biomass, and increases the energy density of fuel.

Classifications:
International (IPC 8-9): C10L5/36 C10L5/40
CPC: B30B1/16 B30B11/10 B30B15/304 C10L5/365 C10L5/44 C10L5/48 Y02E50/10 Y02E50/30
US: 44/535 44/535P



Family:

Publication number	Publication date	Application number	Application date
US2009188160 AA	20090730	US20080022603	20080130

Priority:
US20080022603 20080130

Probable Assignee: HARBY DONALD WADE
Assignee(s): (std): HARBY DONALD WADE ; HAYNES KIRK LAWTON ; LIN YUYI ; LIU HENRY
Inventor(s): (std): HARBY DONALD WADE ; HAYNES KIRK LAWTON ; LIN YUYI ; LIU HENRY
Agent(s): HENRY LIU

Legal status (INPADOC)

View legal status timeline

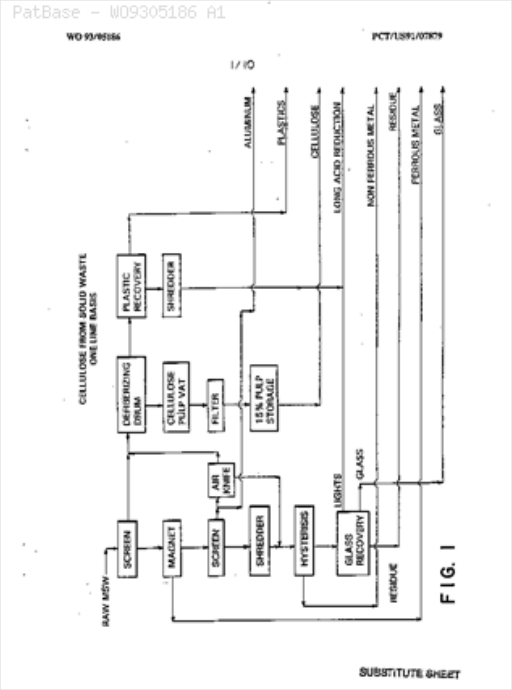
Patent	Date recorded	Event group	Code	Event	Details
US2009188160 AA	20090730	LSPB	+	published / reissued	
US2009188160 AA	20101108	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2009188160 AA	20101108		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION

32) Family number: 8357075 (WO9305186 A1)

Title: PROCESS FOR THE DISPOSAL OF MUNICIPAL WASTE AND **MANUFACTURE** OF FUEL ALCOHOL

Abstract: A process for the conversion of cellulose from municipal waste has been developed. Significant features are: (1) the use of concentrated hydrochloric acid at moderate temperatures with mechanical action to hydrolyse the cellulose to glucose; (2) recovery of the acid from the hydrolyzate by electrodialysis to provide concentrated sugar solutions for fermentation; and (3) continuous distillation of the ethanol produced.

Classifications:
International (IPC 8-9): B01D3/00 B01D61/42 B01D61/44 C12P7/02 C12P7/10
International (IPC 1-7): C12P7/08 C12S13/00
CPC: B01D3/002 B01D61/44 C12P7/10 Y02E50/10



Family:

Publication number	Publication date	Application number	Application date
AU199189589 A1	19930405	AU19910089589	19911031
WO9305186 A1	19930318	WO1991US07879	19911031

Priority:
US19910757846 19910911 WO1991US07879 19911031

Probable Assignee: EASTER JAMES M III
Assignee(s): (std): EASTER JAMES M III
Assignee(s): EASTER JAMES M ; JAMES M EASTER III
Inventor(s): (std): EASTER JAMES M III
Inventor(s): EASTER JAMES M ; JAMES M EASTER III
Designated states: AT AU BB BE BF BG BJ BR CA CF CG CH CI CM CS DE DK ES FI FR GA GB GN GR HU IT JP KP KR LK LU MC MG ML MN MR MW NL NO PL RO SD SE SN SU TD TG

Legal status (INPADOC)

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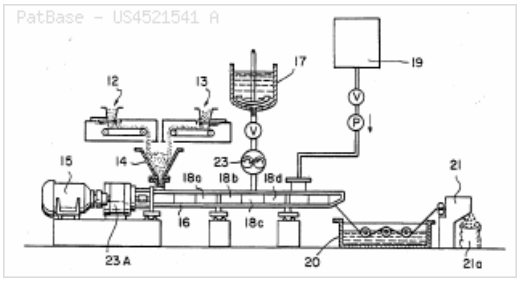
Patent	Date recorded	Event group	Code	Event	Details
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WO9305186 A1	19930318	LSPB	+	published / reissued	
WO9305186 A1	19930318		+AK	DESIGNATED STATES	Kind code of Ref document: A1 Country of Ref document: AT AU BB BG BR CA CH CS DE DK ES FI GB HU JP KP KR LK LU MC MG MN MW NL NO PL RO SD SE SU
WO9305186 A1	19930318		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: A1 Country of Ref document: AT BE BF BJ CF CG CH CI CM DE DK ES FR GA GB GN GR IT LU ML MR NL SE SN TD TG
WO9305186 A1	19940630	LSWD	REG	REFERENCE TO NATIONAL CODE	Ref country code: DE Ref legal event code: 8642
WO9305186 A1	19940706	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	Ref country code: WO
WO9305186 A1	19940711	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: CA

33) Family number: 4774512 (US4521541 A)

Title: PROCESS FOR FORMING FUNCTIONAL FLUID AND SOLID-CONTAINING THERMOPLASTIC FILMS, USES THEREOF AND PROCESS FOR PRODUCING SAME

Abstract: Described is a process for preparing **extruded** functional fluid and solid-containing thermoplastic foamed particles using chemical blowing agents or direct gas extrusion processes, uses of such foamed particles and articles produced from said foamed particles. The process described involves the use of a single **screw** or double **screw** **extruder** wherein the resin particles are added upstream from the functional fluid or solid which, in turn, is added to the **extruder** upstream from the point of addition of the liquid or gaseous blowing agent.

Classifications:
International (IPC 8-9): A61L9/04 B29B7/00 B29B7/74 B29B9/02 B29B9/06 B29C44/34 B29C44/44 B29C44/50
International (IPC 1-7): B29D27/00
CPC: A61L9/042 B29B9/06 B29C44/507 B29L2031/753 Y10S264/05 Y10S428/905 Y10T428/23 Y10T428/249954 B29B7/42 B29B7/46 B29B7/603 B29B7/7414 B29B7/826 B29B7/88 B29B7/94 Y10S521/917 Y10S521/918
US: 106/243 252/174.11 252/174.13 264/141 264/211 264/50 264/DIG.5 424/2 424/78 424/83 424/9.1 425/4.00C 425/4C 428/305.5 428/68 428/905 510/101 521/113 521/114 521/143 521/79 521/82 521/917 521/918 521/97 521/99 264/DIG.005



Family:

Publication number	Publication date	Application number	Application date
US4521541 A	19850604	US19830465313	19830209
US4543367 A	19850924	US19840643826	19840824
US4542162 A	19850917	US19840646019	19840831

Priority:
US19830465313 19830209 US19840643826 19840824 US19840646019 19840831

Probable Assignee: INT FLAVORS AND FRAGRANCES INC
Assignee(s): (std): INT FLAVORS AND FRAGRANCES INC
Assignee(s): INT FLAVORS AND FRAGRANCES INC A CORP OF NY ; INTERNATIONAL FLAVORS AND FRAGRANCES INC
Inventor(s): (std): RUTHERFORD HOWARD J ; WITHYCOMBE DONALD A

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US4521541 A	19830209	LSAS	AS	ASSIGNMENT	Effective date: 19830202 Owner: INTERNATIONAL FLAVORS & FRAGRANCES INC. 521 WEST 5 PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST.;ASSIGNORS:RUTHERFORD, HOWARD J.;WITHYCOMBE, DONALD A.;REEL/FRAME:004093/0805
US4521541 A	19850403	LSGT	PAT1	Patented Case	
US4521541 A	19850403	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US4521541 A	19850604	LSGT	+	granted / extensions (spc, cpc, pte)	
US4521541 A	19881031	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US4521541 A	19920921	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US4521541 A	19960913	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US4542162 A	19840831	LSAS	AS	ASSIGNMENT	PartyType: owner Owner: INTERNATIONAL FLAVORS & FRAGRANCES INC. 521 WEST 5 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST.;ASSIGNORS:RUTHERFORD, HOWARD J.;WITHYCOMBE, ARTHUR;REEL/FRAME:004308/0693;SIGNING DATES FROM 19840822 TO 19840827
US4542162 A	19850717	LSGT	PAT1	Patented Case	
US4542162 A	19850917	LSGT	+	granted / extensions (spc, cpc, pte)	
US4542162 A	19890301	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US4542162 A	19920926	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US4542162 A	19970422		REMI	MAINTENANCE FEE REMINDER MAILED	
US4542162 A	19970914	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	

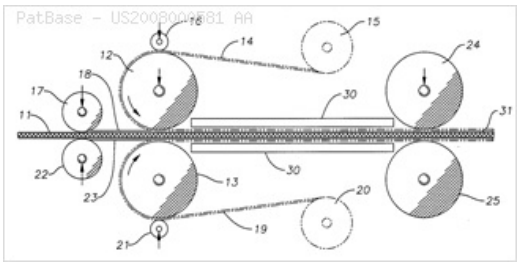
US4542162 A	19971125	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 19970917
US4542162 A	20040831	PEXP		Calculated Patent Term Expiry	
US4542162 A	20180123	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US4542162 A	20180123	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US4543367 A	19850724	LSGT	PAT1	Patented Case	
US4543367 A	19850724	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US4543367 A	19850924	LSGT	+	granted / extensions (spc, cpc, pte)	
US4543367 A	19890301	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US4543367 A	19920926	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US4543367 A	19970213	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12

34) Family number: 41018116 (US2008000581 AA)

Title: PREPARATION OF LAMINATED COMPOSITE SUBSTRATES USING COATED ORIENTED POLYMERIC FILM

Abstract: Disclosed is the preparation of a laminated composite structure. Such laminate composites comprise a base layer comprising a base substrate; at least one polymeric layer laminated onto a surface of the base substrate. The polymeric layer is preferably decorative on an exterior surface and is preferably bonded to the base substrate using a thermosetting adhesive interposed between the substrate surface and the polymeric layer. The polymeric layer comprises an opaque, polymeric, e.g., polypropylene-based, film which has a cavitated core and a coating thereon, which is preferably an acrylic-based coating applied to both sides of the film. Such laminated structures can be produced by passing the requisite base layer, polymeric layer film and adhesive through sets of rollers or drums which supply the heat and/or pressure needed to adhesively bond the layers together.

Classifications:
International (IPC 8-9): B32B15/04 B32B27/18 B32B27/30 B32B27/32 B32B27/38 B32B27/42 B32B3/26 B32B37/00 B32B5/18
CPC: B32B2038/0092 B32B2305/022 B32B2451/00 B32B27/065 B32B27/08 B32B27/18 B32B27/32 B32B3/30 B32B38/06 B32B5/18 Y10T428/249953 Y10T428/25 Y10T428/265 Y10T428/31515 Y10T428/31678 Y10T428/31935 Y10T428/31938 Y10T428/31942 Y10T428/31989
US: 156/272.2 156/272.6 428/304.4 428/323 428/336 428/414 428/457 428/522 428/523 428/524 428/537.1 428/910



Family:

Publication number	Publication date	Application number	Application date
US2008000581 AA	20080103	US20060477054	20060628
WO08002360 A1	20080103	WO2007US11606	20070515

Priority:
US20060477054 20060628

Probable Assignee: EXXON MOBIL CORP

Assignee(s): (std): CROUCH TARQUIN L ; EXXON MOBIL CORP ; EXXONMOBIL OIL CORP ; NISON GILLES L ; NISON GILLES LEON

Inventor(s): (std): CROUCH TARQUIN L ; NISON GILLES L ; NISON GILLES LEON

Agent(s): EXXONMOBIL CHEMICAL CO LAW TECHNOLOGY; EXXONMOBIL CHEMICAL COMPANY, LAW TECHNOLOGY; TYUS DARRYL M

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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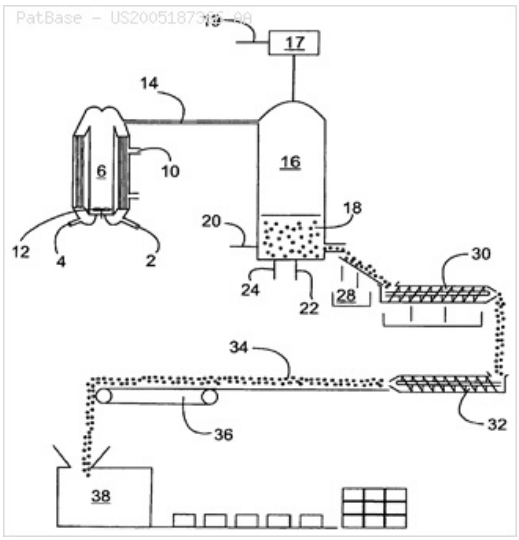
Patent	Date recorded	Event group	Code	Event	Details
US2008000581 AA	20060628	LSAS	AS	ASSIGNMENT	Effective date: 20060628 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:NISON, GILLES L.;CROUCH, TARQUIN L.;REEL/FRAME:018117/0244 Owner: EXXONMOBIL OIL CORPORATION, TEXAS PartyType: owner
US2008000581 AA	20080103	LSPB	+	published / reissued	
US2008000581 AA	20100709	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2008000581 AA	20100709		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
WO08002360 A1	20080103	LSPB	+	published / reissued	
WO08002360 A1	20080409		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Kind code of Ref document: A1 Ref document number: 07794873 Country of Ref document: EP
WO08002360 A1	20081230	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO08002360 A1	20090128	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: RU
WO08002360 A1	20090729	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	Kind code of Ref document: A1 Ref document number: 07794873 Country of Ref document: EP

35) Family number: 32193364 (US2005187366 AA)

Title: ISOOLEFIN-DIOLEFIN PRODUCTION PROCESS AND APPARATUS THEREFORE

Abstract: In an isoolefin-diolefin rubber production process (e.g. a butyl rubber production process), the cold rubber slurry produced in the reaction vessel is transported from the reaction vessel to the flash tank during which time the cold slurry may be expressed to separate at least part of the cold liquid reaction medium from the isoolefin-diolefin rubber. The separated cold liquid reaction medium is transported off stream, for example by a mechanical filter, where it can be recycled back into the reaction vessel and/or where it can be used to cool a **feed** stream or streams of the reaction components. The isoolefin-diolefin rubber and the residual liquid reaction medium are transported to a flash tank for further processing. The ability to separate and recycle cold liquid reaction medium makes the process more economical. In one aspect, the slurry may be transported from the reaction vessel to the flash tank by a self-cleaning fully intermeshing co-rotating twin **screw extruder**, which helps overcome the problem of plugging due to rubber sticking to the surfaces of the slurry transfer apparatus.

Classifications:
International (IPC 8-9): B01J19/00 B01J19/18 B01J19/20 B01J19/22 B01J8/08 B01J8/10 B29C47/46 B29C47/74 B29C48/455 B29C48/74 C08C19/00 C08C19/14 C08C2/00 C08F10/00 C08F10/10 C08F136/00 C08F136/02 C08F2/01 C08F2/04 C08F2/12 C08F2/14 C08F2/18 C08F210/00 C08F210/12 C08F36/00 C08F36/08 C08F6/10 C08L23/00 C08L23/22
International (IPC 1-7): B01J19/20 B01J8/08 B01J8/10 C08F10/10 C08F2/01 C08F2/04 C08F2/14 C08F2/18 C08F210/12 C08F36/00 C08F36/08 C08L23/22
CPC: B01J19/20 B01J19/22 B01J2219/00094 B01J2219/00123 B29C48/40 B29C48/405 B29C48/535 C08F210/12
US: 422/131 422/131S 422/137 422/137S 422/138 422/138P 526/335 526/335P 526/335S 526/348.7 526/70 526/70P



Family:

Publication number	Publication date	Application number	Application date
AT421539 E	20090215	AT20050003492T	20050218
CA2458750 AA	20050823	CA20042458750	20040223
CA2458750 C	20120207	CA20042458750	20040223
CN100519599 C	20090729	CN200510062809	20050222
CN1670046 A	20050921	CN200510062809	20050222
DE602005012444 D1	20090312	DE200560012444T	20050218
EP1571162 A1	20050907	EP20050003492	20050218
EP1571162 B1	20090121	EP20050003492	20050218
RU2005104965 A	20060810	RU20050104965	20050222
RU2399632 C2	20100920	RU20050104965	20050222
US2005187366 AA	20050825	US20050058875	20050216
US7931873 BB	20110426	US20050058875	20050216
US2010048838 AA	20100225	US20090606561	20091027
US7960491 BB	20110614	US20090606561	20091027
US2011150712 AA	20110623	US20100970057	20101216
US8329108 BB	20121211	US20100970057	20101216

Priority:

CA20042458750 20040223 US20050058875 20050216 US20090606561 20091027 US20100970057 20101216

Probable Assignee: ARLANXEO CANADA INC

Assignee(s): (std): BAYER AG ; BAYER INC ; LANKSERS CO LTD ; LANXESS GMBH ; LANXESS INC ; LEHNKSESS INK ; LOVEGROVE JOHN ; MICK HANS JUERGEN

Assignee(s): ARLANXEO CANADA INC ; BAYER AKTIENGESELLSCHAFT ; BAYER MATERIALSCIENCE AG ; LANKSERS CO ; LANXESS DEUTCHLAND GMBH

Inventor(s): (std): LAVGROUV DZHON ; LOFFGROF J ; LOVEGROVE JOHN ; MICK HANS JUERGEN ; MICKER H J ; MIK KHANS JJURGEN

Inventor(s): H J MICKER ; J LOFFGROF

Agent(s): BRUNET ROBERT AH; LANXESS CORP; MICHAEL A; ZOBEL MANFRED

Designated states: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT421539 E	20090215	LSGT	+	granted / extensions (spc, cpc, pte)	
AT421539 E	20090715	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	

AT421539 E	20250218	PEXP		Calculated Patent Term Expiry	
CA2458750 AA	20050823	LSPB	+	published / reissued	
CA2458750 AA	20090203	LSES	+EEER	EXAMINATION REQUEST	
CA2458750 C	20120207	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2458750 C	20240223	PEXP		Calculated Patent Term Expiry	
CN100519599 C	20090729	LSGT	+	granted / extensions (spc, cpc, pte)	
CN100519599 C	20090729	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN100519599 C	20250222	PEXP		Calculated Patent Term Expiry	
CN1670046 A	20050921	LSPB	+	published / reissued	
CN1670046 A	20050921	LSPB	+C06	PUBLICATION	
CN1670046 A	20070214		C10	ENTRY INTO SUBSTANTIVE EXAMINATION	
DE602005012444 D1	20100211	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE602005012444 D1	20170213	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	Owner: ARLANXEO Canada Inc., Sarnia, Ontario, CA PartyType: Owner OldParty: Lanxess Inc., Sarnia, Ontario, CA
EP1571162 A1	20050907	LSPB	+	published / reissued	
EP1571162 A1	20050907		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR
EP1571162 A1	20050907		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Country of Ref document: AL BA HR LV MK YU
EP1571162 A1	20060503	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20060307
EP1571162 A1	20060524	LSFE	+AKX	DESIGNATION FEES PAID	Country of Ref document: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR
EP1571162 A1	20070822	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 20070719
EP1571162 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 12 Payment date: 20160209 Country of Ref document: DE
EP1571162 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160222 Year of fee payment: 12 Country of Ref document: IT
EP1571162 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 12 Payment date: 20151223 Country of Ref document: BE
EP1571162 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160217 Year of fee payment: 12 Country of Ref document: GB
EP1571162 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 12 Payment date: 20160108 Country of Ref document: FR
EP1571162 B1	20090121	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1571162 B1	20090121		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: B1 Country of Ref document: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR
EP1571162 B1	20090121	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref country code: GB Ref legal event code: FG4D
EP1571162 B1	20090130	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: EP
EP1571162 B1	20090218	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref country code: IE Ref legal event code: FG4D
EP1571162 B1	20090312		REF	CORRESPONDS TO:	Date of Ref document: 20090312 Kind code of Ref document: P

					Ref document number: 602005012444 Country of Ref document: DE
EP1571162 B1	20090529	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090121 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: NL
EP1571162 B1	20090701	LSLE	-NLV1	NL: LAPSED OR ANNULLED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT	Ref country code: EP
EP1571162 B1	20090731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090502 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: ES
EP1571162 B1	20090731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090121 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: FI
EP1571162 B1	20090731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090121 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: LT
EP1571162 B1	20090731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090121 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: SI
EP1571162 B1	20090831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090121 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: AT
EP1571162 B1	20090831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090521 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: IS
EP1571162 B1	20090831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090121 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: PL
EP1571162 B1	20090831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090622 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: PT
EP1571162 B1	20090831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090421 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: SE
EP1571162 B1	20090930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090228 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: MC
EP1571162 B1	20090930	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: PL
EP1571162 B1	20091030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090228 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: CH

EP1571162 B1	20091030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090121 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: CZ
EP1571162 B1	20091030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090121 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: DK
EP1571162 B1	20091030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090121 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: EE
EP1571162 B1	20091030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090228 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: LI
EP1571162 B1	20091125	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: IE Ref legal event code: MM4A
EP1571162 B1	20091130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090121 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: RO
EP1571162 B1	20091130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090121 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: SK
EP1571162 B1	20091230	LSGT	+26N	NO OPPOSITION FILED	Effective date: 20091022
EP1571162 B1	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090421 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: BG
EP1571162 B1	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090218 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: IE
EP1571162 B1	20101029	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090422 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: GR
EP1571162 B1	20110429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090218 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: LU
EP1571162 B1	20110630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090722 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: HU
EP1571162 B1	20110831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090121 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: TR
EP1571162 B1	20110930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO	Lapsed date: 20090121 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: CY

				EPO]	
EP1571162 B1	20160108	LSFE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: FR Ref legal event code: PLFP Year of fee payment: 12 Country of Ref document: FR
EP1571162 B1	20170112	LSFE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: FR Ref legal event code: PLFP Year of fee payment: 13 Country of Ref document: FR
EP1571162 B1	20170213		REG	REFERENCE TO A NATIONAL CODE	PartyType: representative Ref country code: DE Ref document number: 602005012444 Ref legal event code: R082 Representative: WICHMANN, BIRGID, DIPL.-CHEM. DR.RER.NAT., DE Country of Ref document: DE
EP1571162 B1	20170213	LSAS	REG	REFERENCE TO A NATIONAL CODE	OldParty: FORMER OWNER: LANXESS INC., SARNIA, ONTARIO, CA Owner: ARLANXEO CANADA INC., SARNIA, CA PartyType: owner Ref country code: DE Ref document number: 602005012444 Ref legal event code: R081 Country of Ref document: DE
EP1571162 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20170214 Year of fee payment: 13 Country of Ref document: DE
EP1571162 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20170112 Year of fee payment: 13 Country of Ref document: FR
EP1571162 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20161228 Year of fee payment: 13 Country of Ref document: BE
EP1571162 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20170215 Year of fee payment: 13 Country of Ref document: GB
EP1571162 B1	20170630	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20170221 Year of fee payment: 13 Country of Ref document: IT
EP1571162 B1	20171030		REG	REFERENCE TO A NATIONAL CODE	Effective date: 20170725 OldParty: DETAILS ASSIGNMENT: CHANGE OF OWNER(S), CHANGEMENT NOM PROPRIETAIRE; FORMER OWNER NAME: LANXESS INC. Owner: ARLANXEO CANADA INC.; CA PartyType: owner Ref country code: BE Ref legal event code: HC
EP1571162 B1	20180111	LSFE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: FR Ref legal event code: PLFP Year of fee payment: 14
EP1571162 B1	20180228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20171228 Year of fee payment: 14 Country of Ref document: BE
EP1571162 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180206 Year of fee payment: 14 Country of Ref document: DE
EP1571162 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180214 Year of fee payment: 14 Country of Ref document: GB
EP1571162 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180111 Year of fee payment: 14 Country of Ref document: FR
EP1571162 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180221 Year of fee payment: 14 Country of Ref document: IT
EP1571162 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20181217 Year of fee payment: 15 Country of Ref document: BE

EP1571162 B1	20190322		REG	REFERENCE TO A NATIONAL CODE	Ref country code: DE Ref document number: 602005012444 Ref legal event code: R082 Country of Ref document: DE
EP1571162 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190221 Year of fee payment: 15 Country of Ref document: IT
EP1571162 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190205 Year of fee payment: 15 Country of Ref document: DE
EP1571162 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190213 Year of fee payment: 15 Country of Ref document: GB
EP1571162 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190111 Year of fee payment: 15 Country of Ref document: FR
EP1571162 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200204 Year of fee payment: 16 Country of Ref document: DE
EP1571162 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200128 Year of fee payment: 16 Country of Ref document: IT
EP1571162 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200206 Year of fee payment: 16 Country of Ref document: GB
EP1571162 B1	20200529	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200114 Year of fee payment: 16 Country of Ref document: BE
EP1571162 B1	20200630	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200113 Year of fee payment: 16 Country of Ref document: FR
EP1571162 B1	20250218	PEXP		Calculated Patent Term Expiry	
RU2005104965 A	20060810	LSPB	+	published / reissued	
RU2399632 C2	20100920	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2399632 C2	20170117	LSLI	PC41	OFFICIAL REGISTRATION OF THE TRANSFER OF EXCLUSIVE RIGHT	Effective date: 20170117
RU2399632 C2	20250222	PEXP		Calculated Patent Term Expiry	
US2005187366 AA	20050825	LSPB	+	published / reissued	
US2005187366 AA	20060717	LSAS	AS	ASSIGNMENT	Effective date: 20040701 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:BAYER INC.;REEL/FRAME:017943/0538 Owner: LANXESS INC., CANADA PartyType: owner
US2005187366 AA	20070425	LSAS	AS	ASSIGNMENT	Effective date: 20070326 OldParty: CONFIRMATORY ASSIGNMENT;ASSIGNORS:BAYER AKTIENGESELLSCHAFT;BAYER MATERIAL SCIENCE AG;LANXESS DEUTSCHLAND GMBH;REEL/FRAME:019210/0165 Owner: LANXESS INC., CANADA PartyType: owner
US2005187366 AA	20110406	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2010048838 AA	20100225	LSPB	+	published / reissued	
US2010048838 AA	20110525	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2011150712 AA	20110623	LSPB	+	published / reissued	
US2011150712 AA	20120821	LSAS	AS	ASSIGNMENT	Effective date: 20040701 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:BAYER

					INC.;REEL/FRAME:028817/0502 Owner: LANXESS INC., CANADA PartyType: owner
US2011150712 AA	20120821	LSAS	AS	ASSIGNMENT	Effective date: 20041122 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:LOVEGROVE, JOHN;REEL/FRAME:028817/0580 Owner: BAYER, INC., CANADA PartyType: owner
US2011150712 AA	20120821	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:MICK, HANS-JUERGEN;REEL/FRAME:028817/0590 PartyType: owner Effective date: 20050110 Owner: BAYER AKTIENGESELLSCHAFT, GERMANY
US2011150712 AA	20120821	LSAS	AS	ASSIGNMENT	Effective date: 20070326 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:BAYER AKTIENGESELLSCHAFT;BAYER MATERIAL SCIENCE AG;LANXESS DEUTSCHLAND GMBH;REEL/FRAME:028817/0615 Owner: LANXESS INC., CANADA PartyType: owner
US2011150712 AA	20121121	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US7931873 BB	20050216	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:LOVEGROVE, JOHN;MICK, HANS-JUERGEN;REEL/FRAME:016287/0593;SIGNING DATES FROM 20041122 TO 20050110 Owner: BAYER AKTIENGESELLSCHAFT, GERMANY PartyType: owner
US7931873 BB	20050216	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:LOVEGROVE, JOHN;MICK, HANS-JUERGEN;SIGNING DATES FROM 20041122 TO 20050110;REEL/FRAME:016287/0593 Owner: BAYER AKTIENGESELLSCHAFT, GERMANY PartyType: owner
US7931873 BB	20050623	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:LOVEGROVE, JOHN;MICK, HANS-JUERGEN;REEL/FRAME:016392/0969;SIGNING DATES FROM 20041122 TO 20050110 Owner: BAYER, INC., CANADA PartyType: owner
US7931873 BB	20050623	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:LOVEGROVE, JOHN;MICK, HANS-JUERGEN;REEL/FRAME:016392/0969;SIGNING DATES FROM 20041122 TO 20050110 Owner: BAYER AKTIENGESELLSCHAFT, GERMANY PartyType: owner
US7931873 BB	20050623	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:LOVEGROVE, JOHN;MICK, HANS-JUERGEN;SIGNING DATES FROM 20041122 TO 20050110;REEL/FRAME:016392/0969 Owner: BAYER, INC., CANADA PartyType: owner
US7931873 BB	20050623	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:LOVEGROVE, JOHN;MICK, HANS-JUERGEN;SIGNING DATES FROM 20041122 TO 20050110;REEL/FRAME:016392/0969 Owner: BAYER AKTIENGESELLSCHAFT, GERMANY PartyType: owner
US7931873 BB	20110406	LSGT	PAT1	Patented Case	
US7931873 BB	20110426	LSGT	+	granted / extensions (spc, cpc, pte)	
US7931873 BB	20140925	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US7931873 BB	20191204	LSAS	AS	ASSIGNMENT	Effective date: 20160401 OldParty: CHANGE OF NAME;ASSIGNOR:LANXESS INC.;REEL/FRAME:051184/0237 Owner: ARLANXEO CANADA INC., CANADA PartyType: owner
US7931873 BB	20250216	PEXP		Calculated Patent Term Expiry	
US7960491 BB	20091123	LSAS	AS	ASSIGNMENT	Effective date: 20041122 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:LOVEGROVE, JOHN;REEL/FRAME:023559/0409 Owner: BAYER, INC.,CANADA PartyType: owner
US7960491 BB	20091123	LSAS	AS	ASSIGNMENT	Effective date: 20050110

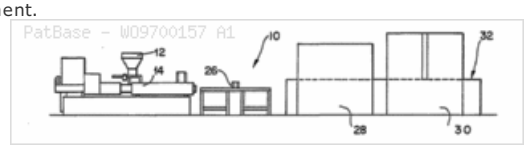
					OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:MICK, HANS-JUERGEN;REEL/FRAME:023559/0488 Owner: BAYER AKTIENGESELLSCHAFT,GERMANY PartyType: owner
US7960491 BB	20091123	LSAS	AS	ASSIGNMENT	Effective date: 20040701 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:BAYER INC.;REEL/FRAME:023559/0593 Owner: LANXESS INC.,CANADA PartyType: owner
US7960491 BB	20091123	LSAS	AS	ASSIGNMENT	Effective date: 20041122 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:LOVEGROVE, JOHN;REEL/FRAME:023559/0409 Owner: BAYER, INC., CANADA PartyType: owner
US7960491 BB	20091123	LSAS	AS	ASSIGNMENT	Effective date: 20050110 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:MICK, HANS-JUERGEN;REEL/FRAME:023559/0488 Owner: BAYER AKTIENGESELLSCHAFT, GERMANY PartyType: owner
US7960491 BB	20091123	LSAS	AS	ASSIGNMENT	Effective date: 20040701 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:BAYER INC.;REEL/FRAME:023559/0593 Owner: LANXESS INC., CANADA PartyType: owner
US7960491 BB	20091123	LSAS	AS	ASSIGNMENT	Effective date: 20070326 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:BAYER AKTIENGESELLSCHAFT;BAYER MATERIAL SCIENCE AG;LANXESS DEUTSCHLAND GMBH;REEL/FRAME:023559/0662 Owner: LANXESS INC.,CANADA PartyType: owner
US7960491 BB	20091123	LSAS	AS	ASSIGNMENT	Effective date: 20070326 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:BAYER AKTIENGESELLSCHAFT;BAYER MATERIAL SCIENCE AG;LANXESS DEUTSCHLAND GMBH;REEL/FRAME:023559/0662 Owner: LANXESS INC., CANADA PartyType: owner
US7960491 BB	20110525	LSGT	PAT1	Patented Case	
US7960491 BB	20110614	LSGT	+	granted / extensions (spc, cpc, pte)	
US7960491 BB	20141113	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US7960491 BB	20181129	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	Year of fee payment: 8
US7960491 BB	20191204	LSAS	AS	ASSIGNMENT	Effective date: 20160401 OldParty: CHANGE OF NAME;ASSIGNOR:LANXESS INC.;REEL/FRAME:051184/0237 Owner: ARLANXEO CANADA INC., CANADA PartyType: owner
US7960491 BB	20250216	PEXP		Calculated Patent Term Expiry	
US8329108 BB	20121121	LSGT	PAT1	Patented Case	
US8329108 BB	20121211	LSGT	+	granted / extensions (spc, cpc, pte)	
US8329108 BB	20160526	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US8329108 BB	20191204	LSAS	AS	ASSIGNMENT	Effective date: 20160401 OldParty: CHANGE OF NAME;ASSIGNOR:LANXESS INC.;REEL/FRAME:051184/0237 Owner: ARLANXEO CANADA INC., CANADA PartyType: owner
US8329108 BB	20200528	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	Year of fee payment: 8
US8329108 BB	20250216	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	

36) Family number: 9991706 (WO9700157 A1)

Title: PROCESS FOR MAKING PLASTIC BLASTING MEDIA FROM POLYAMINE-ALDEHYDE AND POLYPHENOL-ALDEHYDE-CONTAINING MATERIALS

Abstract: A process for **manufacturing** plastic blasting media includes the steps of **extruding** a material under heat and pressure to fuse the material into a substantially dense, solid mass; and cutting or grinding the mass into pieces having an appropriate size and shape for use as an abrasive blasting material. The material to be **extruded** is a thermosetting material that includes at least one member selected from the group of polyamine-aldehyde-containing materials and polyphenol-aldehyde-containing materials. In one aspect of the invention, the **extruding** step takes place in a **screw** **conveyor** (14) and, preferably, in a **screw** **conveyor** having multiple **screws**. Prior to extrusion, the thermosetting material can be prepolymerized to a predetermined degree. The thermosetting material also can include at least one further ingredient selected from the group of a filler, a lubricant, a catalyst, and a pigment.

Classifications:
International (IPC 8-9): B24C11/00 B29B9/02 B29B9/06
International (IPC 1-7): B24C11/00 B29B9/06
CPC: B24C11/00 B29B9/06



Family:

Publication number	Publication date	Application number	Application date
WO9700157 A1	19970103	WO1996US10802	19960619

Priority:
US19950000327P 19950619

Probable Assignee: SUN COAST HOLDINGS INC
Assignee(s): (std): POLICASTRO PETER P ; RENN JARL V ; SUN COAST HOLDINGS INC ; THURSTON JOHN L
Inventor(s): (std): POLICASTRO PETER P ; RENN JARL V ; THURSTON JOHN L
Designated states: AT BE CH DE DK ES FI FR GB GR IE IT JP LU MC NL PT SE US

Legal status (INPADOC)

View legal status timeline

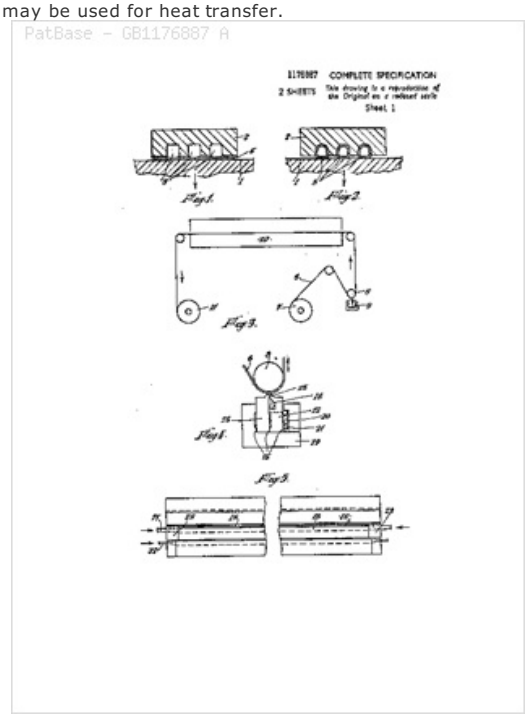
Patent	Date recorded	Event group	Code	Event	Details
WO9700157 A1	19970103	LSPB	+	published / reissued	
WO9700157 A1	19970103		+AK	DESIGNATED STATES	Kind code of Ref document: A1 Country of Ref document: JP US
WO9700157 A1	19970103		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: A1 Country of Ref document: AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE
WO9700157 A1	19970227		DFPE	REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH MONTH FROM PRIORITY DATE (PCT APPLICATION FILED BEFORE 20040101)	
WO9700157 A1	19970423		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	
WO9700157 A1	19981111	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	Ref country code: WO

37) Family number: 73486 (GB1176887 A)

Title: EXTRUSION DIE OR NOZZLE

Abstract: 1,176,887. Extrusion die. KALLE A.G. 28 Dec., 1967 [29 Dec., 1966], No. 58827/67. Heading B5B. [Also in Division B2] Films may be made by **extruding** film forming materials through a slotted die in which the slot 15 is formed between two separate cheeks 12, 13 which when assembled meet over plane parallel surfaces extending in the longitudinal direction of the slot, has said cheeks in the assembled condition confined between two corresponding surfaces of an external member or members 19 under a fluid pressure exerted in one or more chambers 20 in a confining surface of such external member(s) which chambers are sealed to maintain said fluid pressure by resilient means arranged to make confining contact under said pressure with the adjacent cheek surface. The resilient means may be a sheet adhered across the chamber(s) or one or more hoses 21 in and tending to project from the chambers. The external member may be a U-shaped bar. Further chambers and resilient means may be provided for varying the slot width. One of the cheeks may have a recess constituting a reservoir for the film forming material. The fluid pressure medium may be used for heat transfer.

Classifications:
International (IPC 8-9): B29C47/12 B29C47/16 B29C48/30 B29C48/31
International (IPC 1-7): B29D7/04 B29D9/08 B29F3/04 B30B F24F7/00
CPC: B29C48/08 B29C48/10 B29C48/303 B29C48/313 B29C48/30
US: 118/410 18/12DS 425/113 425/376.1



Family:

Publication number	Publication date	Application number	Application date
BE708566 A	19680627		19671227
DE1629510 A1	19710128	DE19661629510	19661229
DE1629510 B2	19721228	DE19661629510	19661229
DE1629510 C3	19730802	DE1966K061046	19661229
ES348705 A1	19690316	ES19670348705	19671227
FR1558489 A	19690228		19671227
GB1176887 A	19700107	GB19670058827	19671228
NL157542 B	19780815	NL19670016714	19671208
NL6716714 A	19680701	NL19670016714	19671208
SE320182 B	19700202	SE19670017834	19671227
US3600750 A	19710824	US19670693998	19671227

Priority:
DE1966K061046 19661229

Probable Assignee: KALLE AG

Assignee(s): (std): HOECHST AG ; KALLE AG

Assignee(s): HOECHST AKTIENGESELLSCHAFT FRANKFORT A D MAIN BONDSREPUBLIEK DUITSLAND ; HOECHST FRANKFORT AD MAIN BONDSREPUBLIEK DUITSLAND AG ; KALLE AG 6202 WIESBADEN-BIEBRICH ; KALLE AKTIENGESELLSCHAFT

Inventor(s): (std): STROSZYNSKI DIPL ING JOACHIM ; STROSZYNSKI J ; STROSZYNSKI JOACHIM ; STROSZYNSKI JOACHIM DIPL ING

Inventor(s): JOACHIM STROSZYNSKI

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
BE708566 A	19680627	LSPB	+	published / reissued	
BE708566 A	19870101	LSLE	-RE20	PATENT EXPIRED	Effective date: 19871227 Owner: HOECHST A.G. PartyType: owner

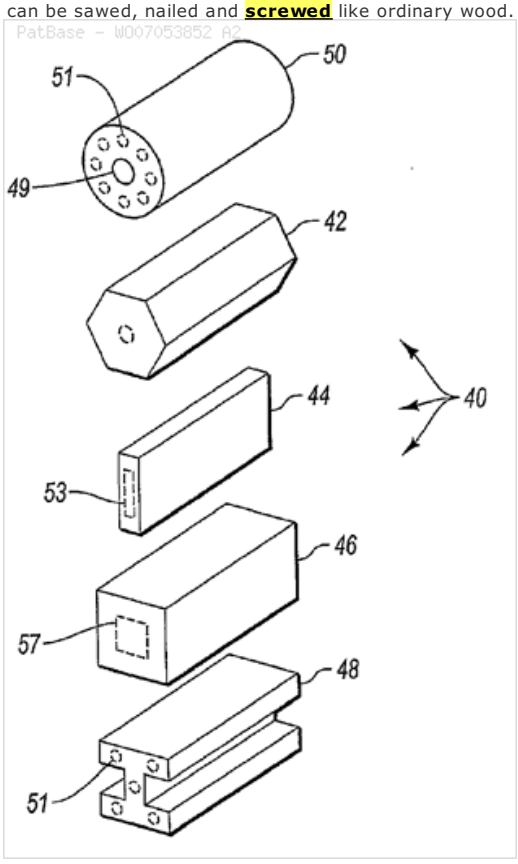
BE708566 A	19871227	PEXP		Calculated Patent Term Expiry	
DE1629510 A1	19710128	LSPB	+	published / reissued	
DE1629510 B2	19721228	LSPB	+	published / reissued	
DE1629510 B2	19730802	LSGT	+C3	GRANT AFTER TWO PUBLICATION STEPS (3RD PUBLICATION)	
DE1629510 B2	19771231		+E77	VALID PATENT AS TO THE HEYMANNS-INDEX 1977	
DE1629510 C3	19730802	LSGT	+	granted / extensions (spc, cpc, pte)	
ES348705 A1	19690316	LSGT	+	granted / extensions (spc, cpc, pte)	
ES348705 A1	19890316	PEXP		Calculated Patent Term Expiry	
FR1558489 A	19690228	LSGT	+	granted / extensions (spc, cpc, pte)	
FR1558489 A	19871227	PEXP		Calculated Patent Term Expiry	
GB1176887 A	19700107	LSGT	+	granted / extensions (spc, cpc, pte)	
GB1176887 A	19871228	PEXP		Calculated Patent Term Expiry	
NL157542 B	19780815	LSPB	+	published / reissued	
NL157542 B	19871208	PEXP		Calculated Patent Term Expiry	
NL157542 B	19871231		NL80	ABBREVIATED NAME OF PATENT OWNER MENTIONED OF ALREADY NULLIFIED PATENT	Owner: HOECHST PartyType: owner
NL157542 B	19880216	LSLE	-V4	LAPSED BECAUSE OF REACHING THE MAXIMUM LIFETIME OF A PATENT	
NL6716714 A	19680701	LSPB	+	published / reissued	
SE320182 B	19700202	LSPB	+	published / reissued	
US3600750 A	19710824	LSGT	+	granted / extensions (spc, cpc, pte)	
US3600750 A	19880824	PEXP		Calculated Patent Term Expiry	

38) Family number: 34457080 (WO07053852 A2)

Title: CEMENTITIOUS COMPOSITES HAVING WOOD-LIKE PROPERTIES AND METHODS OF **MANUFACTURE**

Abstract: A method of **manufacturing** a cementitious composite includes: (1) forming mixing an **extrudable** cementitious composition by first forming a fibrous mixture comprising fibers, water and a rheology modifying agent and then adding hydraulic cement; (2) **extruding** the **extrudable** cementitious composition into a green **extrudate**, wherein the green **extrudate** is characterized by being form-stable and retaining substantially a predefined cross-sectional shape; (3) removing a portion of the water by evaporation to reduce density and increase porosity; and (4) causing or allowing the hydraulic cement to hydrate to form the cementitious composite. Such a process yields a cementitious composite that is suitable for use as a wood substitute. The wood-like building products can be sawed, nailed and **screwed** like ordinary wood.

Classifications:
International (IPC 8-9): B32B13/00 B32B13/02 C04B C04B18/04 C04B18/06 E04C E04C1/00
International (IPC 1-7): C04B18/06
CPC: C04B2111/00129 C04B2111/802 C04B28/02 Y02W30/91



Family:

Publication number	Publication date	Application number	Application date
AU2006308536 AA	20070510	AU20060308536	20061101
AU2006308536 AB	20080626	AU20060308536	20061101
BRPI0618052 A2	20110816	BR2006PI18052	20061101
CA2627717 AA	20080429	CA20062627717	20061101
CN101346321 A	20090114	CN200680049092	20061101
EP1954645 A2	20080813	EP20060846207	20061101
EP1954645 A4	20110907	EP20060846207	20061101
HK1121129 A1	20090417	HK20080112699	20081120
HK1121129 A3	20090417	HK20080112699	20081120
IN03690DN2008 A	20080815	IN2008DN03690	20080430
MX2008005688 A1	20080924	MX20080005688	20061101
WO07053852 A2	20070510	WO2006US60455	20061101
WO07053852 A3	20071227	WO2006US60455	20061101

Priority:
US20050264104 20051101 WO2006US60455 20061101

Probable Assignee: E KHASHOGGI IND LLC

Assignee(s): (std): ANDERSEN PER JUST ; E KHASHOGGI IND LLC ; HODSON SIMON K ; KHASHOGGI E IND

Assignee(s): E KHASHOGGI INDUSTRIES LLC

Inventor(s): (std): ANDERSEN PER JUST ; HODSON SIMON K ; JUST ANDERSEN PER

Inventor(s): ANDERSEN PER ; HODSON SIMON ; PER JUST ANDERSEN ; SIMON K HODSON

Agent(s): BOASE COHEN AND COLLINS; CASSAN MACLEAN; GRIFFITH HACK; GRUENECKER KINKELDEY STOCKMAIR AND SCHWANHAEUSSER ANWALTSSOZIETAET

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU2006308536 AA	20070510	LSPB	+	published / reissued	
AU2006308536 AB	20080626	LSRE	DA3	AMENDMENTS MADE SECTION 104	Text: THE NATURE OF THE AMENDMENT IS AS SHOWN IN THE STATEMENT(S) FILED 15 MAY 2008
AU2006308536 AB	20120524	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
BRPI0618052 A2	20110816	LSPB	+	published / reissued	
BRPI0618052 A2	20111213	LSRV	-B11A	DISMISSAL ACC. ART.33 OF IPL - EXAMINATION NOT REQUESTED WITHIN 36 MONTHS OF FILING	
BRPI0618052 A2	20120320	LSRV	-B11Y	DEFINITIVE DISMISSAL ACC. ARTICLE 33 OF IPL - EXTENSION OF TIME LIMIT FOR REQUEST OF EXAMINATION EXPIRED	
CA2627717 AA	20080429	LSPB	+	published / reissued	
CA2627717 AA	20121101	LSLE	-FZDE	DEAD	
CA2627717 AA	20121227	LSLE	-FZDE	DEAD	Effective date: 20121101
CN101346321 A	20090114	LSPB	+	published / reissued	
CN101346321 A	20090114	LSPB	+C06	PUBLICATION	
CN101346321 A	20090304		C10	ENTRY INTO SUBSTANTIVE EXAMINATION	
CN101346321 A	20120418	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
EP1954645 A2	20080813	LSPB	+	published / reissued	
EP1954645 A2	20080813	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20080502
EP1954645 A2	20080813		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A2 Country of Ref document: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR
EP1954645 A2	20080903	LSAS	RAP1	PARTY DATA CHANGED (APPLICANT DATA CHANGED OR RIGHTS OF AN APPLICATION TRANSFERRED)	Owner: E. KHASHOGGI INDUSTRIES, LLC PartyType: owner
EP1954645 A2	20090417		REG	REFERENCE TO A NATIONAL CODE	Ref document number: 1121129 Ref country code: HK Ref legal event code: DE Country of Ref document: HK
EP1954645 A4	20110907	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	Effective date: 20110808
EP1954645 A4	20110907		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: C04B 18/06 20060101AFI20110802BHEP
EP1954645 A4	20110907		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: E04C 1/00 20060101ALI20110802BHEP
EP1954645 A4	20120801		DAX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT (DELETED)	
EP1954645 A4	20150529	LSWD	REG	REFERENCE TO A NATIONAL CODE	Ref country code: HK Ref document number: 1121129 Ref legal event code: WD Country of Ref document: HK
EP1954645 A4	20191120	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	Effective date: 20120306
HK1121129 A1	20090417	LSPB	+	published / reissued	
HK1121129 A3	20090417	LSPB	+	published / reissued	

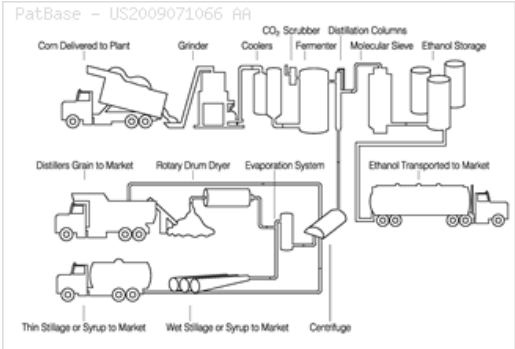
IN03690DN2008 A	20080815	LSPB	+	published / reissued	
MX2008005688 A1	20080924	LSPB	+	published / reissued	
MX2008005688 A1	20161130	LSWD	-FA	ABANDONMENT OR WITHDRAWAL	
WO07053852 A2	20061101	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 200680049092.6 Country of Ref document: CN
WO07053852 A2	20070510	LSPB	+	published / reissued	
WO07053852 A2	20070808		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	
WO07053852 A3	20080429	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 2627717 Country of Ref document: CA
WO07053852 A3	20080430	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: MX/a/2008/005688 Country of Ref document: MX
WO07053852 A3	20080430	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 3690/DELNP/2008 Country of Ref document: IN
WO07053852 A3	20080502	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2006846207 Country of Ref document: EP
WO07053852 A3	20080503	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO07053852 A3	20080515	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2006308536 Country of Ref document: AU
WO07053852 A3	20080605	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 2006308536 Date of Ref document: 20061101 Country of Ref document: AU
WO07053852 A3	20110816	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A2 Effective date: 20080429 Ref document number: PI0618052 Country of Ref document: BR

39) Family number: 43030774 (US2009071066 AA)

Title: METHOD OF PRODUCING DRIED DISTILLERS GRAIN WITH SOLUBLES AGGLOMERATED PARTICLES

Abstract: A method of producing Dried Distiller's Grain with Solubles (DDGS) agglomerated particles is disclosed. The method comprises the steps of separating a first product stream out of the whole stillage that is primarily solid material from a second product stream that is primarily liquid, agglomerating the first product stream using a mechanical **compression** machine such as an **extruder**, and exposing the agglomerated particles to microwave radiation of a sufficient energy for a sufficient time so that the resulting moisture of the agglomerated particles is between 3 percent and 40 percent by weight. The second product stream may be condensed and blended with the first product stream prior to, or concurrently with, the step in which the agglomerated particles are formed. Additionally, other additives, such as enzymes, may be added to the first product stream to enhance the final product's desirability as a nutritional source.

Classifications:
International (IPC 8-9): A23J3/00 A23J3/14 A23K1/06 A23K1/18 A23K1/20 A23K10/38 A23P1/02 C10L5/40 C12G3/00 C12G3/12 C12H6/02
CPC: A23K10/38 A23K20/189 A23K20/20 A23K40/10 A23K40/20 A23K40/25 C10L5/44 Y02E50/10 Y02E50/30 Y02P60/87
US: 426/237 426/240 426/285 426/31 426/516 426/54 426/618 426/624 426/624P 44/589



Family:

Publication number	Publication date	Application number	Application date
CA2699904 AA	20090326	CA20082699904	20080916
US2009071066 AA	20090319	US20080210851	20080915
US7695747 BB	20100413	US20080210851	20080915
US2010183783 AA	20100722	US20100726851	20100318
US2012076915 AA	20120329	US20110313751	20111207
WO09039099 A1	20090326	WO2008US76533	20080916

Priority:

US20070994035P 20070917 US20080210851 20080915 WO2008US76533 20080916
US20100726851 20100318 US20110313751 20111207

Probable Assignee: MEIER RUSSEL J

Assignee(s): (std): MEIER RUSSEL J ; MEIER RUSSELL ; MEIER RUSSELL J

Inventor(s): (std): MEIER RUSSEL J ; MEIER RUSSELL ; MEIER RUSSELL J

Agent(s): CHARLES A; HAMILTON IP LAW PC; JAY R; LAW OFFICE OF JAY R HAMILTON PLC

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CA2699904 AA	20090326	LSPB	+	published / reissued	
CA2699904 AA	20131112	LSLE	-FZDE	DEAD	Effective date: 20130917
US2009071066 AA	20090319	LSPB	+	published / reissued	
US2009071066 AA	20100324	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2010183783 AA	20100722	LSPB	+	published / reissued	
US2010183783 AA	20120117	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2010183783 AA	20120117		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2012076915 AA	20120329	LSPB	+	published / reissued	
US2012076915 AA	20130211	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2012076915 AA	20130211		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US7695747 BB	20100324	LSGT	PAT1	Patented Case	
US7695747 BB	20100413	LSGT	+	granted / extensions (spc, cpc, pte)	

US7695747 BB	20131014	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US7695747 BB	20170921	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	Year of fee payment: 8
US7695747 BB	20280915	PEXP		Calculated Patent Term Expiry	
WO09039099 A1	20090326	LSPB	+	published / reissued	
WO09039099 A1	20090520		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Kind code of Ref document: A1 Ref document number: 08831326 Country of Ref document: EP
WO09039099 A1	20100317	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2699904 Country of Ref document: CA
WO09039099 A1	20100318	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO09039099 A1	20101013	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	Kind code of Ref document: A1 Ref document number: 08831326 Country of Ref document: EP

40) Family number: 50952297 (US2013032158 AA)

Title: APPARATUSES, SYSTEMS, AND ASSOCIATED METHODS FOR FORMING POROUS MASSES FOR SMOKE FILTERS

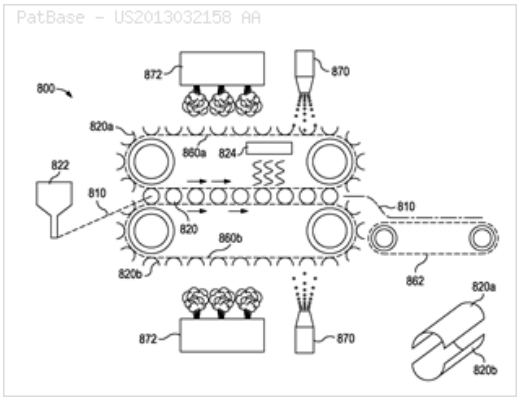
Abstract: High-throughput production methods for **manufacturing** porous masses suitable for use in conjunction with smoking devices may include continuously combining a matrix material and a **paper** wrapper to form a desired cross-sectional shape where the matrix material is confined by the **paper** wrapper, the matrix material comprising a binder particle and an active particle; heating at least a portion of the matrix material so as to bind the matrix material at a plurality of contact points, thereby forming a porous mass length, wherein heating involves irradiating with microwave radiation at least a portion of the matrix material; cooling the porous mass length; and cutting the porous mass length radially thereby producing a porous mass.

Classifications:

International (IPC 8-9): A24C5/47 A24D3/00 A24D3/02 A24D3/04 A24D3/06 A24D3/08 A24D3/10 A24D3/14 A24D3/16 A24D3/18 B01D39/00 B01D39/16 B29B11/16 B29C43/02 B29C44/04 B29C47/00 B29C47/78 B29K105/04 B32B37/24 B65G53/30 B82Y30/00 C08J9/24

CPC: A24C5/47 A24D3/02 A24D3/0233 A24D3/0237 A24D3/0241 A24D3/0287 A24D3/06 A24D3/066 A24D3/00 A24D3/0229 A24D3/062 B29B11/16 B30B11/14 B82Y30/00 A24D3/08 A24D3/0208 A24D3/14 A24D3/163 B29C44/0407 B29C48/78

US: 1/1 131/280 131/331 131/332 131/339 131/342 131/345 156/242 264/118 264/122 264/148 264/45.3 264/474 425/112 425/122 425/308 425/404 977/903



Family:

Publication number	Publication date	Application number	Application date
AR092976 AA	20150513	AR2013P103685	20131010
BR112013008892 A2	20160628	BR20131108892	20121011
BR112013008908 A2	20160628	BR20131108908	20111014
BR112015008145 A2	20170704	BR20151108145	20131010
CA2814074 AA	20130408	CA20112814074	20111014
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CA2812104 AA	20130412	CA20122812104	20121011
CA2812104 C	20151201	CA20122812104	20121011
CA2887527 AA	20150408	CA20132887527	20131010
CA2887527 C	20180102	CA20132887527	20131010
CL2013001015 A1	20131115	CL20130001015	20130412
CL53694 B	20161230	CL20130001015	20130412
CL2013001016 A1	20131115	CL20130001016	20130412
CL54213 B	20170529	CL20130001016	20130412
CL2015000899 A1	20151023	CL20150000899	20150409
CN103237467 A	20130807	CN201180057817	20111014
CN103220924 A	20130724	CN201280003756	20121011
CN103330283 A	20131002	CN201310273059	20111014
CN103330283 B	20160810	CN201310273059	20111014
CN104797148 A	20150722	CN201380059443	20131010
CO6731085 A2	20130815	CO20130118311	20130514
CO6710951 A2	20130715	CO20130118319	20130514
CO7350615 A2	20150810	CO20150099288	20150430
EA201390549 A1	20141230	EA20130090549	20121011
EA026286 B1	20170331	EA20130090552	20111014
EA201390552 A1	20140228	EA20130090552	20111014
EA029736 B1	20180531	EA20150090710	20131010
EA201590710 A1	20150930	EA20150090710	20131010
EP2627203 A2	20130821	EP20110833499	20111014
EP2627203 A4	20180404	EP20110833499	20111014
EP2627204 A1	20130821	EP20120846228	20121011
EP2627204 A4	20150617	EP20120846228	20121011
EP2906058 A1	20150819	EP20130845853	20131010
EP2906058 A4	20161005	EP20130845853	20131010
ID201702468 A	20170317	ID2015P0002766	20131010
JP2013215196 A2	20131024	JP20130108652	20130523
JP5655111 B2	20150114	JP20130108652	20130523
JP2013539659 T2	20131028	JP20130534041T	20111014
JP5728584 B2	20150603	JP20130534041T	20111014
JP2014509834 T2	20140424	JP20130542267T	20121011
JP2015532110 T2	20151109	JP20150536881T	20131010
JP6039090 B2	20161207	JP20150536881T	20131010
KR20130060368 A	20130607	KR20137012260	20111014
KR101535360 B1	20150708	KR20137012261	20121011
KR20130076889 A	20130708	KR20137012261	20121011
KR101555414 B1	20150925	KR20137012296	20111014
KR20130054470 A	20130524	KR20137012296	20111014
KR101523182 B1	20150526	KR20147017240	20111014
KR20140089443 A	20140714	KR20147017240	20111014
KR101589886 B1	20160129	KR20157007051	20111014
KR20150036835 A	20150407	KR20157007051	20111014

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US2013298923 AA	20131114	US20110877027	20111014
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US2013032158 AA	20130207	US20120649735	20121011
US2014070465 AA	20140313	US20130049404	20131009
US2014076340 AA	20140320	US20130085180	20131120
US2013221562 AA	20130829	US20130854253	20130401
US9027566 BB	20150512	US20130854253	20130401
US2013221563 AA	20130829	US20130854281	20130401
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US2013214447 AA	20130822	US20130854323	20130401
US9149069 BB	20151006	US20130854323	20130401
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WO13066589 A1	20130510	WO2012US59743	20121011
WO14059101 A1	20140417	WO2013US64269	20131010

Priority:

US20100393378P 20101015	WO2011US56388 20111014	US20110056388 20111014
CN201180057817 20111014	US2011US56388 20111014	JP20130534041 20111014
JP20130534041T 20111014	US20110877027 20111014	WO2012US59743 20121011
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WO2013US64269 20131010	US20130085180 20131120	CL20150000899 20150409

Probable Assignee: ACETATE INT LLC

Assignee(s): (std): ACETATE INT LLC ; CELANESE ACETATE LLC ; GARRETT THOMAS S ; GOU ZEMING ; KIZER LAWTON E ; ROBERTSON RAYMOND M

Assignee(s): BASU SAYANTI ; HUNT DAVID G ; MCGRADY CHRISTOPHER D ; SANDERSON WILLIAM S

Inventor(s): (std): BASU SAYANTI ; CHRISTOPHER D MCGRADY ; DAVID G HUNT ; GARRET THOMAS S ; GARRETT THOMAS S ; GOU ZEMING ; HUNT DAVID G ; KIZER LAWTON E ; LAWTON E KIZER ; MCGRADY CHRISTOPHER D ; MEERMANN CHRISTIAN ; RAYMOND M ROBERTSON ; ROBERSTON RAYMOND M ; ROBERTSON RAYMOND ; ROBERTSON RAYMOND M ; SANDERSON WILLIAM S ; SAYANTI BASU ; WILLIAM S SANDERSON ; Z GOU ; ZEMING GOU

Inventor(s): RAYMOND ROBERTSON ; THOMAS S GARRETT

Agent(s): AKAMATSU TOSHIAKI; DORA AM BADAR S PSI; JAIMES; JOHANSSON AND LANGLOIS; JORDAN CAREY C; KAISER IONA N ET AL; KURT; KURT N; LAHRTZ FRITZ; LUZ CLEMENCIA DE PAEZ; MCDERMOTT WILL AND EMERY LLP; SARGENT AND KRAHN; SMART AND BIGGAR; YAMASAKI YUKUZO

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AR092976 AA	20150513	LSPB	+	published / reissued	
AR092976 AA	20200127	LSGT	+FG	GRANT, REGISTRATION	
BR112013008892 A2	20160628	LSPB	+	published / reissued	
BR112013008892 A2	20180327		B06F	OBJECTIONS, DOCUMENTS AND/OR TRANSLATIONS NEEDED AFTER AN EXAMINATION REQUEST ACCORDING ART. 34 INDUSTRIAL PROPERTY LAW	
BR112013008892 A2	20180821	LSAS	B25A	REQUESTED TRANSFER OF RIGHTS APPROVED	PartyType: owner Owner: ACETATE INTERNATIONAL LLC (US)
BR112013008892 A2	20190709		B06T	FORMAL REQUIREMENTS BEFORE EXAMINATION	
BR112013008892 A2	20190917	LSRV	B11E	DISMISSAL ACC. ART. 34 OF IPL - REQUIREMENTS	

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BR112013008892 A2	20200929		-B11T	DISMISSAL: DISMISSAL OF APPLICATION MAINTAINED	
BR112013008908 A2	20160628	LSPB	+	published / reissued	
BR112013008908 A2	20180403		B06F	OBJECTIONS, DOCUMENTS AND/OR TRANSLATIONS NEEDED AFTER AN EXAMINATION REQUEST ACCORDING ART. 34 INDUSTRIAL PROPERTY LAW	
BR112013008908 A2	20180821	LSAS	B25A	REQUESTED TRANSFER OF RIGHTS APPROVED	Owner: ACETATE INTERNATIONAL LLC (US) PartyType: owner
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BR112013008908 A2	20200121	LSES	B07A	TECHNICAL EXAMINATION (OPINION): PUBLICATION OF TECHNICAL EXAMINATION (OPINION)	
BR112013008908 A2	20200721	LSRV	B09B	DECISION: REFUSAL	
BR112013008908 A2	20201117	LSRV	B09B	DECISION: REFUSAL	Text: MANTIDO O INDEFERIMENTO UMA VEZ QUE NAO FOI APRESENTADO RECURSO DENTRO DO PRAZO LEGAL
BR112015008145 A2	20170704	LSPB	+	published / reissued	
BR112015008145 A2	20180306		B06F	OBJECTIONS, DOCUMENTS AND/OR TRANSLATIONS NEEDED AFTER AN EXAMINATION REQUEST ACCORDING ART. 34 INDUSTRIAL PROPERTY LAW	
BR112015008145 A2	20180313		B06F	OBJECTIONS, DOCUMENTS AND/OR TRANSLATIONS NEEDED AFTER AN EXAMINATION REQUEST ACCORDING ART. 34 INDUSTRIAL PROPERTY LAW	
BR112015008145 A2	20180320		B06I	TECHNICAL AND FORMAL REQUIREMENTS: PUBLICATION CANCELLED	
BR112015008145 A2	20180320		B06I	TECHNICAL AND FORMAL REQUIREMENTS: PUBLICATION CANCELLED	Text: ANULADA A PUBLICACAO CODIGO 6.6.1 NA RPI NO 2462 DE 13/03/2018 POR TER SIDO INDEVIDA.
BR112015008145 A2	20181016	LSAS	B25A	REQUESTED TRANSFER OF RIGHTS APPROVED	Owner: ACETATE INTERNATIONAL LLC (US) PartyType: owner
BR112015008145 A2	20191015		B06U	PRELIMINARY REQUIREMENT: REQUESTS WITH SEARCHES PERFORMED BY OTHER PATENT OFFICES: SUSPENSION OF THE PATENT APPLICATION PROCEDURE	
BR112015008145 A2	20200204	LSRV	-B11B	DISMISSAL ACC. ART. 36, PAR 1 OF IPL - NO REPLY WITHIN 90 DAYS TO FULLFIL THE NECESSARY REQUIREMENTS	
CA2812104 AA	20130412	LSPB	+	published /	

				reissued	
CA2812104 AA	20130619	LSES	+EEER	EXAMINATION REQUEST	Effective date: 20130412
CA2812104 C	20151201	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2812104 C	20201124	LSLE	-MKLA	LAPSED	Effective date: 20201013
CA2812104 C	20321011	PEXP		Calculated Patent Term Expiry	
CA2814074 AA	20130408	LSPB	+	published / reissued	
CA2814074 AA	20130511	LSES	+EEER	EXAMINATION REQUEST	Effective date: 20130408
CA2814074 C	20170117	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2814074 C	20311014	PEXP		Calculated Patent Term Expiry	
CA2887527 AA	20150408	LSPB	+	published / reissued	
CA2887527 AA	20150416	LSES	+EEER	EXAMINATION REQUEST	Effective date: 20150408
CA2887527 C	20180102	LSGT	+	granted / extensions (spc, cpc, pte)	
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CA2887527 C	20331010	PEXP		Calculated Patent Term Expiry	
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CL2013001016 A1	20131115	LSPB	+	published / reissued	
CL2015000899 A1	20151023	LSPB	+	published / reissued	
CL53694 B	20161230	LSGT	+	granted / extensions (spc, cpc, pte)	
CL53694 B	20330412	PEXP		Calculated Patent Term Expiry	
CL54213 B	20170529	LSGT	+	granted / extensions (spc, cpc, pte)	
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CN103220924 A	20130724	LSPB	+	published / reissued	
CN103220924 A	20130724	LSPB	+C06	PUBLICATION	
CN103220924 A	20130821		C10	ENTRY INTO SUBSTANTIVE EXAMINATION	
CN103220924 A	20161019	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
CN103237467 A	20130807	LSPB	+	published / reissued	
CN103237467 A	20130807	LSPB	+C06	PUBLICATION	
CN103237467 A	20130904		C10	ENTRY INTO SUBSTANTIVE EXAMINATION	
CN103237467 A	20160824	LSRV	-C12	REJECTION OF A PATENT APPLICATION AFTER ITS PUBLICATION	
CN103330283 A	20131002	LSPB	+	published / reissued	
CN103330283 A	20131002	LSPB	+C06	PUBLICATION	
CN103330283 A	20131106		C10	ENTRY INTO SUBSTANTIVE EXAMINATION	
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				extensions (spc, cpc, pte)	
CN103330283 B	20160810	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN103330283 B	20180216	LSAS	TR01	TRANSFER OF PATENT RIGHT	
CN103330283 B	20311014	PEXP		Calculated Patent Term Expiry	
CN104797148 A	20150722	LSPB	+	published / reissued	
CN104797148 A	20150722	LSPB	+C06	PUBLICATION	
CN104797148 A	20150722	LSPB	PB01	公开 (The publication of application)	Text: 公开 (Disclosure)
CN104797148 A	20150819		EXSB	DECISION MADE BY SIPO TO INITIATE SUBSTANTIVE EXAMINATION	
CN104797148 A	20150819		SE01	实质审查请求的生效 (The entry into substantive examination)	Text: 实质审查的生效 (Force of substantive review)
CN104797148 A	20180227	LSAS	TA01	TRANSFER OF PATENT APPLICATION RIGHT	
CN104797148 A	20180227	LSAS	TA01	专利申请权的转移 (Transfer of patent application right)	Text: 专利申请权、专利权的转移 (Transfer of Patent Application or Patent Right) Effective date: 20180206 Applicant Before Change: 塞拉尼斯醋酸纤维有限公司 (Celanese Acetate Co.) Applicant After Change: 醋酸纤维国际有限责任公司 (Cellulose acetate International Limited Liability Company)
CN104797148 A	20181204	LSDW	-WD01	INVENTION PATENT APPLICATION DEEMED WITHDRAWN AFTER PUBLICATION	
CN104797148 A	20181204	LSDW	-WD01	发明专利申请公布后的视为撤回 (Deemed withdrawal of application for invention after its publication)	Text: 发明专利申请公布后的视为撤回 (After the publication of the patent application for invention shall be deemed to have been withdrawn)
CO6710951 A2	20130715	LSPB	+	published / reissued	
CO6731085 A2	20130815	LSPB	+	published / reissued	
CO7350615 A2	20150810	LSPB	+	published / reissued	
EA026286 B1	20170331	LSGT	+	granted / extensions (spc, cpc, pte)	
EA026286 B1	20180228	LSRE	PC4A	REGISTRATION OF TRANSFER OF A EURASIAN PATENT BY ASSIGNMENT	
EA026286 B1	20180629	LSLE	-MM4A	LAPSE OF A EURASIAN PATENT DUE TO NON-PAYMENT OF RENEWAL FEES WITHIN THE TIME LIMIT IN THE FOLLOWING DESIGNATED STATE(S)	Country of Ref document: AM AZ BY KG KZ MD TJ TM
EA026286 B1	20311014	PEXP		Calculated Patent Term Expiry	
EA029736 B1	20180531	LSGT	+	granted / extensions (spc, cpc, pte)	
EA029736 B1	20190628	LSLE	-MM4A	LAPSE OF A EURASIAN PATENT DUE TO NON-PAYMENT OF RENEWAL FEES WITHIN THE TIME LIMIT IN THE FOLLOWING DESIGNATED STATE(S)	Country of Ref document: AM AZ BY KG KZ TJ TM
EA029736 B1	20200630	LSLE	-MM4A	LAPSE OF A	Country of Ref document: RU

				EURASIAN PATENT DUE TO NON-PAYMENT OF RENEWAL FEES WITHIN THE TIME LIMIT IN THE FOLLOWING DESIGNATED STATE(S)	
EA029736 B1	20331010	PEXP		Calculated Patent Term Expiry	
EA201390549 A1	20141230	LSPB	+	published / reissued	
EA201390552 A1	20140228	LSPB	+	published / reissued	
EA201590710 A1	20150930	LSPB	+	published / reissued	
EP2627203 A2	20130821	LSPB	+	published / reissued	
EP2627203 A2	20130821	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20130507
EP2627203 A2	20130821		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A2 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP2627203 A2	20140122		DAX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT (DELETED)	
EP2627203 A2	20150923		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: KIZER, LAWTON, E. PartyType: inventor
EP2627203 A2	20150923		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	PartyType: inventor Inventor: GARRETT, THOMAS, S.
EP2627203 A2	20150923		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	PartyType: inventor Inventor: GOU, ZEMING
EP2627203 A2	20150923		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	PartyType: inventor Inventor: ROBERTSON, RAYMOND, M.
EP2627203 A2	20171115		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: A24D 3/02 20060101AFI20171006BHEP
EP2627203 A2	20171115		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: A24D 3/06 20060101ALI20171006BHEP
EP2627203 A2	20180221		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: A24D 3/06 20060101ALI20180118BHEP
EP2627203 A2	20180221		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: A24D 3/02 20060101AFI20180118BHEP
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EP2627203 A4	20180404		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: A24D 3/06 20060101ALI20180227BHEP ClassificationScheme: IPC
EP2627203 A4	20180404		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: A24D 3/02 20060101AFI20180227BHEP
EP2627203 A4	20180718	LSAS	RAP1	PARTY DATA CHANGED (APPLICANT DATA CHANGED OR RIGHTS OF AN APPLICATION TRANSFERRED)	PartyType: owner Owner: ACETATE INTERNATIONAL LLC
EP2627203 A4	20190116	LSES	+17Q	FIRST EXAMINATION REPORT	Effective date: 20181213

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EP2627204 A1	20130821	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20130516
EP2627204 A1	20130821		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP2627204 A1	20141001		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: GOU, ZEMING PartyType: inventor
EP2627204 A1	20141001		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: GARRETT, THOMAS, S. PartyType: inventor
EP2627204 A1	20141001		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	PartyType: inventor Inventor: KIZER, LAWTON, E.
EP2627204 A1	20141001		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: ROBERTSON, RAYMOND, M. PartyType: inventor
EP2627204 A1	20150121		DAX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT (DELETED)	
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EP2627204 A4	20150617		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: A24D 3/02 20060101AFI20150512BHEP
EP2627204 A4	20150617		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: A24D 3/08 20060101ALI20150512BHEP ClassificationScheme: IPC
EP2627204 A4	20170830	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 20170726
EP2627204 A4	20180704	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	Effective date: 20180123
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EP2906058 A1	20150819	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20150504
EP2906058 A1	20150819		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP2906058 A1	20150819		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Country of Ref document: BA ME
EP2906058 A1	20151021		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	PartyType: inventor Inventor: GOU, ZEMING
EP2906058 A1	20151021		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	PartyType: inventor Inventor: KIZER, LAWTON E.
EP2906058 A1	20151021		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT	Inventor: ROBERTSON, RAYMOND M. PartyType: inventor

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EP2906058 A1	20151021		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	PartyType: inventor Inventor: BASU, SAYANTI
EP2906058 A1	20151021		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: HUNT, DAVID G. PartyType: inventor
EP2906058 A1	20151021		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	PartyType: inventor Inventor: SANDERSON, WILLIAM S.
EP2906058 A1	20151021		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	PartyType: inventor Inventor: MCGRADY, CHRISTOPHER D.
EP2906058 A1	20151111		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	PartyType: inventor Inventor: GOU, ZEMING
EP2906058 A1	20151111		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	PartyType: inventor Inventor: HUNT, DAVID G.
EP2906058 A1	20151111		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	PartyType: inventor Inventor: ROBERTSON, RAYMOND M.
EP2906058 A1	20151111		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: MCGRADY, CHRISTOPHER D. PartyType: inventor
EP2906058 A1	20151111		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	PartyType: inventor Inventor: SANDERSON, WILLIAM S.
EP2906058 A1	20151111		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: KIZER, LAWTON E. PartyType: inventor
EP2906058 A1	20151111		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	PartyType: inventor Inventor: BASU, SAYANTI
EP2906058 A1	20160120		DAX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT (DELETED)	
EP2906058 A4	20161005	LSES	+RA4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED (CORRECTED)	Effective date: 20160906
EP2906058 A4	20161005		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: B65G 53/30 20060101ALI20160831BHEP ClassificationScheme: IPC
EP2906058 A4	20161005		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: A24D 3/02 20060101AFI20160831BHEP ClassificationScheme: IPC
EP2906058 A4	20161005		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: A24D 3/06 20060101ALI20160831BHEP ClassificationScheme: IPC
EP2906058 A4	20161005		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: A24C 5/47 20060101ALI20160831BHEP
EP2906058 A4	20180801	LSAS	RAP1	PARTY DATA CHANGED (APPLICANT DATA CHANGED OR RIGHTS OF AN APPLICATION TRANSFERRED)	PartyType: owner Owner: ACETATE INTERNATIONAL LLC
EP2906058 A4	20191016	LSES	+17Q	FIRST	Effective date: 20190913

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EP2906058 A4	20200729	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	Effective date: 20200124
ID201702468 A	20170317	LSPB	+	published / reissued	
JP2013215196 A2	20131024	LSPB	+	published / reissued	
JP2013215196 A2	20140402	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Effective date: 20140401 Text: JAPANESE INTERMEDIATE CODE: A131
JP2013215196 A2	20140701	LSRE	A521	WRITTEN AMENDMENT	Effective date: 20140630 Text: JAPANESE INTERMEDIATE CODE: A523
JP2013215196 A2	20141022	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2013215196 A2	20141029	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	Text: JAPANESE INTERMEDIATE CODE: A01 Effective date: 20141028
JP2013215196 A2	20141127	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	Text: JAPANESE INTERMEDIATE CODE: A61 Effective date: 20141121
JP2013215196 A2	20141128	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	Ref document number: 5655111 Text: JAPANESE INTERMEDIATE CODE: R150 Country of Ref document: JP
JP2013539659 T2	20131028	LSPB	+	published / reissued	
JP2013539659 T2	20140116	LSRE	A521	WRITTEN AMENDMENT	Effective date: 20140115 Text: JAPANESE INTERMEDIATE CODE: A523
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JP2013539659 T2	20140701	LSRE	A521	WRITTEN AMENDMENT	Text: JAPANESE INTERMEDIATE CODE: A523 Effective date: 20140630
JP2013539659 T2	20140925	LSRV	-A02	DECISION OF REFUSAL	Effective date: 20140924 Text: JAPANESE INTERMEDIATE CODE: A02
JP2013539659 T2	20150122	LSRE	A521	WRITTEN AMENDMENT	Text: JAPANESE INTERMEDIATE CODE: A523 Effective date: 20150122
JP2013539659 T2	20150130	LSAL	A911	TRANSFER OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	Text: JAPANESE INTERMEDIATE CODE: A911 Effective date: 20150129
JP2013539659 T2	20150306	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2013539659 T2	20150311	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	Text: JAPANESE INTERMEDIATE CODE: A01 Effective date: 20150310
JP2013539659 T2	20150409	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	Effective date: 20150406 Text: JAPANESE INTERMEDIATE CODE: A61
JP2013539659 T2	20150410	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	Ref document number: 5728584 Text: JAPANESE INTERMEDIATE CODE: R150 Country of Ref document: JP
JP2014509834 T2	20140424	LSPB	+	published / reissued	
JP2014509834 T2	20140709	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Text: JAPANESE INTERMEDIATE CODE: A131 Effective date: 20140708
JP2014509834 T2	20141008	LSRE	A521	WRITTEN AMENDMENT	Effective date: 20141007 Text: JAPANESE INTERMEDIATE CODE: A523
JP2014509834 T2	20150311	LSRV	-A02	DECISION OF REFUSAL	Text: JAPANESE INTERMEDIATE CODE: A02 Effective date: 20150310

JP2014509834 T2	20150709	LSRE	A521	WRITTEN AMENDMENT	Effective date: 20150709 Text: JAPANESE INTERMEDIATE CODE: A523
JP2014509834 T2	20150722	LSAL	A911	TRANSFER OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	Effective date: 20150721 Text: JAPANESE INTERMEDIATE CODE: A911
JP2014509834 T2	20151005	LSAL	-A912	REMOVAL OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	Text: JAPANESE INTERMEDIATE CODE: A912 Effective date: 20151002
JP2014509834 T2	20160920	LSRE	A521	WRITTEN AMENDMENT	Text: JAPANESE INTERMEDIATE CODE: A523 Effective date: 20160920
JP2015532110 T2	20151109	LSPB	+	published / reissued	
JP2015532110 T2	20160316		A977	REPORT ON RETRIEVAL	Effective date: 20160316 Text: JAPANESE INTERMEDIATE CODE: A971007
JP2015532110 T2	20160329	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Text: JAPANESE INTERMEDIATE CODE: A131 Effective date: 20160329
JP2015532110 T2	20160624	LSRE	A521	WRITTEN AMENDMENT	Effective date: 20160624 Text: JAPANESE INTERMEDIATE CODE: A523
JP2015532110 T2	20160927	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2015532110 T2	20161004	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	Text: JAPANESE INTERMEDIATE CODE: A01 Effective date: 20161004
JP2015532110 T2	20161110	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	Effective date: 20161102 Text: JAPANESE INTERMEDIATE CODE: A61
JP2015532110 T2	20161111	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	Ref document number: 6039090 Text: JAPANESE INTERMEDIATE CODE: R150 Country of Ref document: JP
JP5655111 B2	20141030	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5655111 B2	20141125	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5655111 B2	20141128	LSGT	+R150	特許証 (Patent certificate)	
JP5655111 B2	20150114	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5655111 B2	20171102	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5655111 B2	20171107	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
JP5655111 B2	20171107	LSFE	+R250	年金領収書, 年金領収書(分納) (Pension receipt, annuity receipt (scheduled))	
JP5655111 B2	20180323	LSAS	R313113	本権移転登録申請書 (譲渡) (Application for transfer of right of transfer (assignment))	
JP5655111 B2	20180323	LSRE	R313531	表示変更登録申請書 (住所) (Display change registration application (address))	
JP5655111 B2	20180323	LSAS	S111	REQUEST FOR CHANGE OF OWNERSHIP OR PART OF OWNERSHIP	Text: JAPANESE INTERMEDIATE CODE: R313113
JP5655111 B2	20180323		S531	WRITTEN REQUEST FOR REGISTRATION OF CHANGE OF DOMICILE	Text: JAPANESE INTERMEDIATE CODE: R313531
JP5655111 B2	20180402	LSAS	R350	WRITTEN NOTIFICATION OF	Text: JAPANESE INTERMEDIATE CODE: R350

				REGISTRATION OF TRANSFER	
JP5655111 B2	20180402	LSAS	R350	移転登録済通知書 (Transfer registered notice)	
JP5655111 B2	20181128	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP5655111 B2	20330523	PEXP		Calculated Patent Term Expiry	
JP5728584 B2	20130731	LSRE	A521	WRITTEN AMENDMENT	Text: JAPANESE INTERMEDIATE CODE: A523 Effective date: 20130516
JP5728584 B2	20130906		A975	REPORT ON ACCELERATED EXAMINATION	Text: JAPANESE INTERMEDIATE CODE: A971005 Effective date: 20130905
JP5728584 B2	20131016	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Effective date: 20131015 Text: JAPANESE INTERMEDIATE CODE: A131
JP5728584 B2	20150312	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5728584 B2	20150312	LSGT	+A01	特許査定書 (Decision of patent grant)	Effective date: 20150310
JP5728584 B2	20150407	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5728584 B2	20150407	LSFE	R100	特許料納付書 (Patent fee payment form)	Effective date: 20150406 Text: 51500711373
JP5728584 B2	20150410	LSGT	+R150	特許証 (Patent certificate)	
JP5728584 B2	20150410	LSGT	+R150	特許証 (Patent certificate)	Effective date: 20150421
JP5728584 B2	20150603	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5728584 B2	20180323	LSAS	R313113	本権移転登録申請書 (譲渡) (Application for transfer of right of transfer (assignment))	
JP5728584 B2	20180323	LSAS	R313113	本権移転登録申請書 (譲渡) (Application for transfer of right of transfer (assignment))	Effective date: 20180319 Text: 002063-E01
JP5728584 B2	20180323	LSAS	S111	REQUEST FOR CHANGE OF OWNERSHIP OR PART OF OWNERSHIP	Text: JAPANESE INTERMEDIATE CODE: R313113
JP5728584 B2	20180402	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	Text: JAPANESE INTERMEDIATE CODE: R350
JP5728584 B2	20180402	LSAS	R350	移転登録済通知書 (Transfer registered notice)	
JP5728584 B2	20180402	LSAS	R350	移転登録済通知書 (Transfer registered notice)	Text: 002063-E01 Effective date: 20180413
JP5728584 B2	20180405	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5728584 B2	20180405	LSFE	R20	特許料納付書 (Patent fee payment form)	Effective date: 20180329 Text: 51800654205
JP5728584 B2	20180417	LSLE	R280	納付書補充指令書 (Payment refilling order form)	
JP5728584 B2	20180417	LSLE	R280	納付書補充指令書 (Payment refilling order form)	Text: 51800654205 Effective date: 20180416
JP5728584 B2	20180419	LSFE	R21	特許料納付書 (補充) (Patent fee payment form (replenishment))	
JP5728584 B2	20180419	LSFE	R21	特許料納付書 (補充) (Patent fee payment form (replenishment))	Effective date: 20180417 Text: 51800805872
JP5728584 B2	20180508	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
JP5728584 B2	20180508	LSFE	+R250	年金領収書, 年金領収書	

				(分納) (Pension receipt, annuity receipt (scheduled))	
JP5728584 B2	20180508	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	Effective date: 20180515
JP5728584 B2	20190404	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5728584 B2	20190404	LSFE	R20	特許料納付書 (Patent fee payment form)	Text: 51900676214 Effective date: 20190328
JP5728584 B2	20190409	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
JP5728584 B2	20190409	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	
JP5728584 B2	20190409	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	Effective date: 20190419
JP5728584 B2	20200327	LSFE	R20	特許料納付書 (Patent fee payment form)	Effective date: 20200326
JP5728584 B2	20200327	LSFE	R20	特許料納付書 (Patent fee payment form)	Effective date: 20200326 Text: 52000641204
JP5728584 B2	20200330	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
JP5728584 B2	20200330	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	Effective date: 20200417
JP5728584 B2	20311014	PEXP		Calculated Patent Term Expiry	
JP6039090 B2	20161006	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP6039090 B2	20161006	LSGT	+A01	特許査定書 (Decision of patent grant)	Effective date: 20161004
JP6039090 B2	20161108	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP6039090 B2	20161108	LSFE	R100	特許料納付書 (Patent fee payment form)	Effective date: 20161102 Text: 51602297067
JP6039090 B2	20161111	LSGT	+R150	特許証 (Patent certificate)	
JP6039090 B2	20161111	LSGT	+R150	特許証 (Patent certificate)	Effective date: 20161122
JP6039090 B2	20161207	LSGT	+	granted / extensions (spc, cpc, pte)	
JP6039090 B2	20180323	LSAS	R313113	本権移転登録申請書 (譲渡) (Application for transfer of right of transfer (assignment))	
JP6039090 B2	20180323	LSAS	R313113	本権移転登録申請書 (譲渡) (Application for transfer of right of transfer (assignment))	Effective date: 20180319 Text: 002063-E01
JP6039090 B2	20180323	LSAS	S111	REQUEST FOR CHANGE OF OWNERSHIP OR PART OF OWNERSHIP	Text: JAPANESE INTERMEDIATE CODE: R313113
JP6039090 B2	20180402	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	Text: JAPANESE INTERMEDIATE CODE: R350
JP6039090 B2	20180402	LSAS	R350	移転登録済通知書 (Transfer registered notice)	
JP6039090 B2	20180402	LSAS	R350	移転登録済通知書 (Transfer registered notice)	Effective date: 20180413 Text: 002063-E01
JP6039090 B2	20191111	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	

JP6039090 B2	20331010	PEXP		Calculated Patent Term Expiry	
KR101523182 B1	20140623		A107	DIVISIONAL APPLICATION OF PATENT	
KR101523182 B1	20140627	LSES	A201	REQUEST FOR EXAMINATION	
KR101523182 B1	20140627	LSES	A302	REQUEST FOR ACCELERATED EXAMINATION	
KR101523182 B1	20150526	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101523182 B1	20180510	LSFE	FPAY	ANNUAL FEE PAYMENT	Payment date: 20180510 Year of fee payment: 4
KR101523182 B1	20190520	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE	
KR101523182 B1	20311014	PEXP		Calculated Patent Term Expiry	
KR101535360 B1	20150708	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101535360 B1	20321011	PEXP		Calculated Patent Term Expiry	
KR101555414 B1	20150925	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101555414 B1	20311014	PEXP		Calculated Patent Term Expiry	
KR101589886 B1	20150319		A107	DIVISIONAL APPLICATION OF PATENT	
KR101589886 B1	20150325	LSES	A201	REQUEST FOR EXAMINATION	
KR101589886 B1	20160129	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101589886 B1	20190123	LSLE	-LAPS	LAPSE DUE TO UNPAID ANNUAL FEE	
KR101589886 B1	20311014	PEXP		Calculated Patent Term Expiry	
KR20130054470 A	20130513		A107	DIVISIONAL APPLICATION OF PATENT	
KR20130054470 A	20130513	LSES	A201	REQUEST FOR EXAMINATION	
KR20130054470 A	20130524	LSPB	+	published / reissued	
KR20130054470 A	20141020	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20130054470 A	20141222	LSRE	AMND	AMENDMENT	
KR20130054470 A	20150430	LSRV	-E601	DECISION TO REFUSE APPLICATION	
KR20130054470 A	20150803	LSRE	AMND	AMENDMENT	
KR20130054470 A	20150828	LSGT	+X701	DECISION TO GRANT (AFTER RE-EXAMINATION)	
KR20130054470 A	20150917	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR20130060368 A	20130513		A107	DIVISIONAL APPLICATION OF PATENT	
KR20130060368 A	20130513	LSES	A201	REQUEST FOR EXAMINATION	
KR20130060368 A	20130513	LSES	A302	REQUEST FOR ACCELERATED EXAMINATION	
KR20130060368 A	20130513	LSRE	AMND	AMENDMENT	
KR20130060368 A	20130607	LSPB	+	published / reissued	
KR20130060368 A	20130927	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	

KR20130060368 A	20131127	LSRE	AMND	AMENDMENT
KR20130060368 A	20140129	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20130060368 A	20140521	LSRV	-E601	DECISION TO REFUSE APPLICATION
KR20130060368 A	20140623		A107	DIVISIONAL APPLICATION OF PATENT
KR20130060368 A	20140623	LSRE	AMND	AMENDMENT
KR20130060368 A	20140807	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20130060368 A	20141107	LSRE	AMND	AMENDMENT
KR20130060368 A	20150319		A107	DIVISIONAL APPLICATION OF PATENT
KR20130060368 A	20150320	LSWD	-WITB	WRITTEN WITHDRAWAL OF APPLICATION
KR20130076889 A	20130513	LSES	A201	REQUEST FOR EXAMINATION
KR20130076889 A	20130708	LSPB	+	published / reissued
KR20130076889 A	20140325	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20130076889 A	20140828	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20130076889 A	20150227	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20130076889 A	20150427		A107	DIVISIONAL APPLICATION OF PATENT
KR20130076889 A	20150623	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT
KR20130076889 A	20150702	LSGT	+GRNT	WRITTEN DECISION TO GRANT
KR20140089443 A	20140714	LSPB	+	published / reissued
KR20140089443 A	20141020	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20140089443 A	20141219	LSRE	AMND	AMENDMENT
KR20140089443 A	20150217	LSRV	-E601	DECISION TO REFUSE APPLICATION
KR20140089443 A	20150217		-X091	APPLICATION REFUSED [PATENT]
KR20140089443 A	20150325	LSRE	AMND	AMENDMENT
KR20140089443 A	20150430	LSGT	+X701	DECISION TO GRANT (AFTER RE-EXAMINATION)
KR20140089443 A	20150519	LSGT	+GRNT	WRITTEN DECISION TO GRANT
KR20150036835 A	20150407	LSPB	+	published / reissued
KR20150036835 A	20150515	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20150036835 A	20151228	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT
KR20150036835 A	20160122	LSGT	+GRNT	WRITTEN DECISION TO GRANT
KR20150054007 A	20150427		A107	DIVISIONAL APPLICATION OF PATENT
KR20150054007 A	20150519	LSPB	+	published / reissued
KR20150054007 A	20171112	LSDW	-WITN	WITHDRAWAL DUE

				TO NO REQUEST FOR EXAMINATION	
KR20150064199 A	20150506	LSES	A201	REQUEST FOR EXAMINATION	
KR20150064199 A	20150610	LSPB	+	published / reissued	
KR20150064199 A	20160610	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20150064199 A	20161207	LSRV	-E601	DECISION TO REFUSE APPLICATION	
MX2013004179 A1	20130605	LSPB	+	published / reissued	
MX2013004179 A1	20170328	LSGT	+FG	GRANT OR REGISTRATION	
MX2013004181 A1	20130614	LSPB	+	published / reissued	
MX2015004625 A1	20150714	LSPB	+	published / reissued	
MX346683 B	20170328	LSGT	+	granted / extensions (spc, cpc, pte)	
MX346683 B	20311014	PEXP		Calculated Patent Term Expiry	
SG11201502790X A1	20150528	LSPB	+	published / reissued	
SG189324 A1	20130531	LSPB	+	published / reissued	
SG189885 A1	20130628	LSPB	+	published / reissued	
TW201442649 A	20141116	LSPB	+	published / reissued	
US2013032158 AA	20121119	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:GARRETT, THOMAS S.;ROBERTSON, RAYMOND M.;KIZER, LAWTON E.;AND OTHERS;SIGNING DATES FROM 20121112 TO 20121113;REEL/FRAME:029317/0983 Owner: CELANESE ACETATE LLC, TEXAS PartyType: owner
US2013032158 AA	20130207	LSPB	+	published / reissued	
US2013032158 AA	20150909	LSES	NFA1	Non Final Action Mailed	
US2013032158 AA	20160413	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2013032158 AA	20160413		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2013214447 AA	20130822	LSPB	+	published / reissued	
US2013214447 AA	20150916	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2013221562 AA	20130829	LSPB	+	published / reissued	
US2013221562 AA	20150422	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2013221563 AA	20130829	LSPB	+	published / reissued	
US2013221563 AA	20151021	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2013298923 AA	20131114	LSPB	+	published / reissued	
US2013298923 AA	20150902	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2014070465 AA	20131015	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:KIZER, LAWTON E.;ROBERTSON, RAYMOND M.;SANDERSON, WILLIAM S.;AND OTHERS;SIGNING DATES FROM

					20131007 TO 20131011;REEL/FRAME:031402/0961 Owner: CELANESE ACETATE LLC, TEXAS PartyType: owner
US2014070465 AA	20140203		RFE1	Docketed New Case - Ready for Examination	
US2014070465 AA	20140313	LSPB	+	published / reissued	
US2014070465 AA	20170510		RFE1	Docketed New Case - Ready for Examination	
US2014070465 AA	20170807	LSES	NFA1	Non Final Action Mailed	
US2014070465 AA	20171214	LSAS	AS	ASSIGNMENT	Owner: ACETATE INTERNATIONAL LLC, TEXAS Effective date: 20171024 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:CELANESE ACETATE LLC;REEL/FRAME:044869/0827 PartyType: owner
US2014070465 AA	20180220	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2014070465 AA	20180220		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2014076340 AA	20140204	LSAS	AS	ASSIGNMENT	PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:KIZER, LAWTON E.;ROBERTSON, RAYMOND M.;SANDERSON, WILLIAM S.;AND OTHERS;SIGNING DATES FROM 20140120 TO 20140203;REEL/FRAME:032128/0053 Owner: CELANESE ACETATE LLC, TEXAS
US2014076340 AA	20140226		RFE1	Docketed New Case - Ready for Examination	
US2014076340 AA	20140320	LSPB	+	published / reissued	
US2014076340 AA	20170310		FRM1	Final Rejection Mailed	
US2014076340 AA	20170519		RSP1	Response after Final Action Forwarded to Examiner	
US2014076340 AA	20170526	LSES	ADV1	Advisory Action Mailed	
US2014076340 AA	20170721		RFE1	Docketed New Case - Ready for Examination	
US2014076340 AA	20170918	LSES	NFA1	Non Final Action Mailed	
US2014076340 AA	20171214	LSAS	AS	ASSIGNMENT	Effective date: 20171024 Owner: ACETATE INTERNATIONAL LLC, TEXAS PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:CELANESE ACETATE LLC;REEL/FRAME:044869/0827
US2014076340 AA	20180329	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2014076340 AA	20180329		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US9027566 BB	20130401	LSAS	AS	ASSIGNMENT	PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:GARRETT, THOMAS S.;KIZER, LAWTON E.;ROBERTSON, RAYMOND M.;AND OTHERS;REEL/FRAME:030122/0133 Effective date: 20130327 Owner: CELANESE ACETATE LLC, TEXAS
US9027566 BB	20150422	LSGT	PAT1	Patented Case	

US9027566 BB	20150512	LSGT	+	granted / extensions (spc, cpc, pte)	
US9027566 BB	20171214	LSAS	AS	ASSIGNMENT	PartyType: owner Owner: ACETATE INTERNATIONAL LLC, TEXAS Effective date: 20171024 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:CELANESE ACETATE LLC;REEL/FRAME:044391/0796
US9027566 BB	20181231	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US9027566 BB	20190617	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	Text: PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US9027566 BB	20190617	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US9027566 BB	20190617	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US9027566 BB	20190709	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20190512
US9027566 BB	20311014	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US9138017 BB	20130403	LSAS	AS	ASSIGNMENT	Effective date: 20130327 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:GARRETT, THOMAS S.;GOU, ZERNING;KIZER, LAWTON E.;AND OTHERS;REEL/FRAME:030284/0856 PartyType: owner Owner: CELANESE ACETATE LLC, TEXAS
US9138017 BB	20130529	LSAS	AS	ASSIGNMENT	Effective date: 20130327 PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:GARRETT, THOMAS S.;GOU, ZEMING;KIZER, LAWTON E.;AND OTHERS;REEL/FRAME:030502/0735 Owner: CELANESE ACETATE LLC, TEXAS
US9138017 BB	20130529	LSAS	AS	ASSIGNMENT	Effective date: 20130327 PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:GARRETT, THOMAS S.;GOU, ZEMING;KIZER, LAWTON E.;AND OTHERS;REEL/FRAME:030500/0852 Owner: CELANESE ACETATE LLC, TEXAS
US9138017 BB	20150902	LSGT	PAT1	Patented Case	
US9138017 BB	20150922	LSGT	+	granted / extensions (spc, cpc, pte)	
US9138017 BB	20171214	LSAS	AS	ASSIGNMENT	Owner: ACETATE INTERNATIONAL LLC, TEXAS PartyType: owner Effective date: 20171024 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:CELANESE ACETATE LLC;REEL/FRAME:044391/0796
US9138017 BB	20190222	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	Year of fee payment: 4
US9138017 BB	20311014	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US9149069 BB	20130401	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:GARRETT, THOMAS S.;KIZER, LAWTON E.;ROBERTSON, RAYMOND M.;AND OTHERS;REEL/FRAME:030123/0509 PartyType: owner

					Effective date: 20130327 Owner: CELANESE ACETATE LLC, TEXAS
US9149069 BB	20150916	LSGT	PAT1	Patented Case	
US9149069 BB	20151006	LSGT	+	granted / extensions (spc, cpc, pte)	
US9149069 BB	20171214	LSAS	AS	ASSIGNMENT	Owner: ACETATE INTERNATIONAL LLC, TEXAS PartyType: owner Effective date: 20171024 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:CELANESE ACETATE LLC;REEL/FRAME:044391/0796
US9149069 BB	20190325	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	Year of fee payment: 4
US9149069 BB	20311014	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US9179708 BB	20130401	LSAS	AS	ASSIGNMENT	Owner: CELANESE ACETATE LLC, TEXAS PartyType: owner Effective date: 20130327 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:GARRETT, THOMAS S.;KIZER, LAWTON E.;ROBERTSON, RAYMOND M.;AND OTHERS;REEL/FRAME:030123/0011
US9179708 BB	20151021	LSGT	PAT1	Patented Case	
US9179708 BB	20151110	LSGT	+	granted / extensions (spc, cpc, pte)	
US9179708 BB	20171214	LSAS	AS	ASSIGNMENT	PartyType: owner Owner: ACETATE INTERNATIONAL LLC, TEXAS Effective date: 20171024 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:CELANESE ACETATE LLC;REEL/FRAME:044391/0796
US9179708 BB	20190701	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US9179708 BB	20191216	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	Text: PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US9179708 BB	20191216	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US9179708 BB	20191216	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US9179708 BB	20200107	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20191110
US9179708 BB	20311014	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
UY35074 A1	20141031	LSPB	+	published / reissued	
WO12051548 A2	20120419	LSPB	+	published / reissued	
WO12051548 A2	20120613		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Kind code of Ref document: A2 Ref document number: 11833499 Country of Ref document: EP
WO12051548 A3	20130408	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 2814074 Country of Ref document: CA
WO12051548 A3	20130412	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: MX/A/2013/004179 Country of Ref document: MX
WO12051548 A3	20130415	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 2013534041 Country of Ref document: JP

WO12051548 A3	20130415	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO12051548 A3	20130507	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2011833499 Country of Ref document: EP
WO12051548 A3	20130513	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 20137012260 Kind code of Ref document: A Country of Ref document: KR
WO12051548 A3	20130513	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 201390552 Country of Ref document: EA
WO12051548 A3	20130514	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 13118319 Country of Ref document: CO
WO12051548 A3	20130529	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 13877027 Country of Ref document: US
WO12051548 A3	20150324		REG	REFERENCE TO NATIONAL CODE	Ref country code: BR Ref document number: 112013008908 Ref legal event code: B01A Country of Ref document: BR
WO12051548 A3	20160628	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A2 Ref document number: 112013008908 Effective date: 20130411 Country of Ref document: BR
WO13066589 A1	20130412	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 2812104 Country of Ref document: CA
WO13066589 A1	20130412	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: MX/A/2013/004181 Country of Ref document: MX
WO13066589 A1	20130510	LSPB	+	published / reissued	
WO13066589 A1	20130513	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 20137012261 Kind code of Ref document: A Country of Ref document: KR
WO13066589 A1	20130513	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 201390549 Country of Ref document: EA
WO13066589 A1	20130514	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 13118311 Country of Ref document: CO
WO13066589 A1	20130516	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2012846228 Country of Ref document: EP
WO13066589 A1	20130531	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 2013542267 Country of Ref document: JP
WO13066589 A1	20130626		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Kind code of Ref document: A1 Ref document number: 12846228 Country of Ref document: EP
WO13066589 A1	20131231		REG	REFERENCE TO NATIONAL CODE	Ref document number: 112013008892 Ref country code: BR Ref legal event code: B01A Country of Ref document: BR
WO13066589 A1	20140414	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO13066589 A1	20160628	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A2 Effective date: 20130411 Ref document number: 112013008892 Country of Ref document: BR
WO14059101 A1	20140417	LSPB	+	published / reissued	
WO14059101 A1	20140604		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS	Kind code of Ref document: A1 Ref document number: 13845853 Country of Ref document: EP

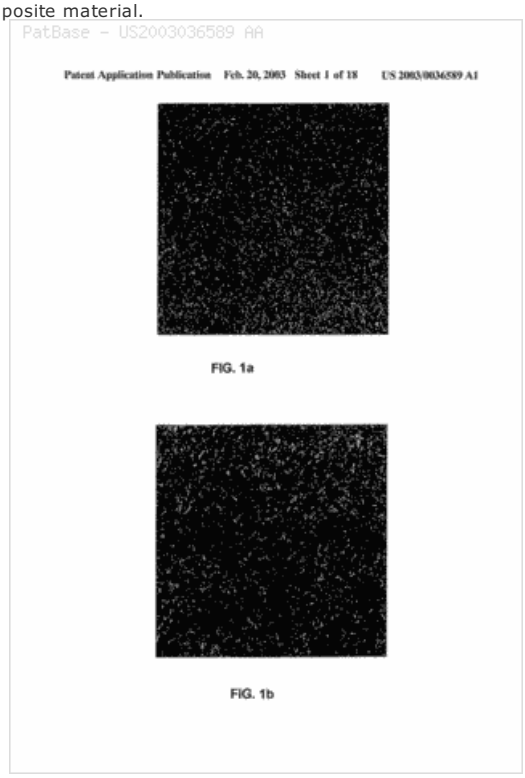
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WO14059101 A1	20150408	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 2887527 Country of Ref document: CA
WO14059101 A1	20150410	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: MX/A/2015/004625 Country of Ref document: MX
WO14059101 A1	20150413	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 2015536881 Country of Ref document: JP
WO14059101 A1	20150413	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO14059101 A1	20150422		REG	REFERENCE TO NATIONAL CODE	Ref document number: 112015008145 Ref country code: BR Ref legal event code: B01A Country of Ref document: BR
WO14059101 A1	20150430	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 15099288 Country of Ref document: CO
WO14059101 A1	20150504	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2013845853 Country of Ref document: EP
WO14059101 A1	20150506	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 20157011791 Kind code of Ref document: A Country of Ref document: KR
WO14059101 A1	20150507	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 201590710 Country of Ref document: EA
WO14059101 A1	20150508	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: IDP00201502766 Country of Ref document: ID
WO14059101 A1	20170704	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 112015008145 Effective date: 20150410 Kind code of Ref document: A2 Country of Ref document: BR

41) Family number: 28087953 (US2003036589 AA)

Title: METHOD FOR MAKING WOOD AND PLASTIC COMPOSITE MATERIAL

Abstract: A method of preparing wood and plastic to produce a composite material.

Classifications:
International (IPC 8-9): C08L97/00 C08L97/02
International (IPC 1-7): B29B11/14 B29B9/02 B29B9/06 B29C47/00 B29C70/00 C08J5/10 C08K1/100 C08K11/00 C08L1/00 C08L2/300 C08L23/00
CPC: C08L97/02
US: 264/115 264/118 264/122 264/123 264/126 264/241 264/330 524/13 524/13P 524/15 524/16



Family:

Publication number	Publication date	Application number	Application date
US6586504 BA	20030701	US20000558895	20000426
US2003036589 AA	20030220	US20020213412	20020805
US6632387 BB	20031014	US20020213412	20020805

Priority:
US20000558895 20000426 US20020213412 20020805

Probable Assignee: P AND M SIGNS

Assignee(s): (std): P AND M PLASTICS ; P AND M SIGNS ; US AGRICULTURE

Assignee(s): AGRICULTURE SECRETARY OF UNITED STATES OF AMERICA ; ARCHULETTA PHIL T ; MUEHL JAMES H ; P AND M SIGNS PO BOX ; PJ WOODLANDS LLC ; SECRETARY OF AGRICULTURE AS US GOV ; SECRETARY OF AGRICULTURE US ; SECRETARY OF AGRICULTUREWASHINGTON DISTRICT OF ; THE UNITED STATES OF AMERICA AS REPRESENTED BY THE ; THE UNITED STATES OF AMERICA AS REPRESENTED BY THE SECRETARY OF AGRICULTURE

Inventor(s): (std): ARCHULETTA PHIL T ; MUEHL JAMES H

Inventor(s): JAMES H MUEHL ; PHIL T ARCHULETTA

Agent(s): BRIAN J PANGRLE; PEACOCK MYERS AND ADAMS PC; ROD D BAKER

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US2003036589 AA	20030220	LSPB	+	published / reissued	
US2003036589 AA	20030616	LSAS	AS	ASSIGNMENT	Effective date: 20030616 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:MUEHL, JAMES H.;REEL/FRAME:014176/0938 Owner: THE UNITED STATES OF AMERICA AS REPRESENTED BY THE PartyType: owner
US6586504 BA	20000724	LSAS	AS	ASSIGNMENT	Effective date: 20000426 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ARCHULETTA, PHIL T.;REEL/FRAME:010993/0055 Owner: P & M SIGNS, NEW MEXICO PartyType: owner
US6586504 BA	20000724	LSAS	AS	ASSIGNMENT	Effective date: 20000424 OldParty: ASSIGNMENT OF ASSIGNORS

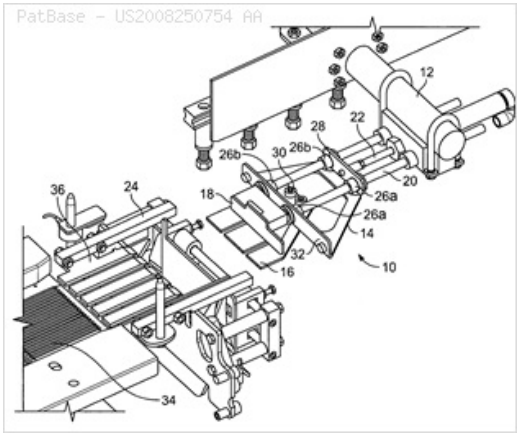
					INTEREST;ASSIGNOR:MUEHL, JAMES H.;REEL/FRAME:010993/0059 Owner: AGRICULTURE, SECRETARY OF, UNITED STATES OF AMERIC PartyType: owner
US6586504 BA	20030701	LSGT	+	granted / extensions (spc, cpc, pte)	
US6586504 BA	20040106	LSRE	CC	CERTIFICATE OF CORRECTION	
US6586504 BA	20070102	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US6586504 BA	20110103	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US6586504 BA	20150206		REMI	MAINTENANCE FEE REMINDER MAILED	
US6586504 BA	20150701	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6586504 BA	20150727	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6586504 BA	20150727	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6586504 BA	20150818	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20150701
US6586504 BA	20160226	LSAS	AS	ASSIGNMENT	Effective date: 20160114 OldParty: SECURITY INTEREST;ASSIGNOR:P & M SIGNS, INC. AND P & M PLASTICS, INC.;REEL/FRAME:037836/0599 Owner: PJ WOODLANDS LLC, NEW MEXICO PartyType: owner
US6586504 BA	20200426	PEXP		Calculated Patent Term Expiry	
US6632387 BB	20031014	LSGT	+	granted / extensions (spc, cpc, pte)	
US6632387 BB	20070319	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US6632387 BB	20110523		REMI	MAINTENANCE FEE REMINDER MAILED	
US6632387 BB	20110812	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US6632387 BB	20110812		+SULP	SURCHARGE FOR LATE PAYMENT	Year of fee payment: 7
US6632387 BB	20150522		REMI	MAINTENANCE FEE REMINDER MAILED	
US6632387 BB	20151014	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6632387 BB	20151109	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6632387 BB	20151109	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6632387 BB	20151201	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20151014
US6632387 BB	20160226	LSAS	AS	ASSIGNMENT	Effective date: 20160114 OldParty: SECURITY INTEREST;ASSIGNOR:P & M SIGNS, INC. AND P & M PLASTICS, INC.;REEL/FRAME:037836/0599 Owner: PJ WOODLANDS LLC, NEW MEXICO PartyType: owner
US6632387 BB	20220805	PEXP		Calculated Patent Term Expiry	

42) Family number: 42379851 (US2008250754 AA)

Title: ICE CREAM SANDWICH-MAKING MACHINE

Abstract: An improved wrapping apparatus for an ice-cream sandwich-making machine comprises an oscillating arm and cam which drives a horizontal slider plate connected to a frame, and a pusher unit connected to an air cylinder; an improved **paper** feeder system, including separate **paper** and knife drives, air **compression** springs, and a **paper** low sensor; and a hinged exit tray.

Classifications:
International (IPC 8-9): A21C9/04 A23G7/00 A23G9/28 B65B11/06 B65B11/54 B65B25/00 B65B3/10 B65B35/10 B65B41/16 B65G11/06 B65G59/00
CPC: A23G7/0043 A23G9/286 B65B11/54 B65B25/007 B65B3/10 B65B35/10 B65B41/16 B65B11/00
US: 1/1 221/1 221/1S 53/122 53/209 53/220 53/220P 53/223 53/230 53/230P 53/252 53/461



Family:

Publication number	Publication date	Application number	Application date
US2008250754 AA	20081016	US20080073515	20080306
US7874130 BB	20110125	US20080073515	20080306
US2011083400 AA	20110414	US20100969201	20101215
US2013067858 AA	20130321	US20120679683	20121116
US9199747 BB	20151201	US20120679683	20121116
US10010096 BB	20180703	US20150936126	20151109
US2016081366 AA	20160324	US20150936126	20151109

Priority:

US20070905073P 20070306 US20080073515 20080306 US20100696201 20100129
US20100696201 20101215 US20100969201 20101215 US20120679683 20121116
US20150936126 20151109

Probable Assignee: DARIFILL

Assignee(s): (std): DARIFILL ; DARIFILL INC ; ROUSCULP ERIC ; ROUSCULP ERIC R ; SPEARS G SCOTT ; SPEARS SCOTT ; SPENCER JACK ; SPENCER JACK D

Assignee(s): FIFTH THIRD BANK

Inventor(s): (std): ROUSCULP ERIC ; ROUSCULP ERIC R ; SPEARS G SCOTT ; SPEARS SCOTT ; SPENCER JACK ; SPENCER JACK D

Agent(s): VORYS SATER SEYMOUR AND PEASE LLP; VORYS SATER SEYMOUR PEASE; WILLIAM H; WILLIAM L

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
US10010096 BB	20180613	LSGT	PAT1	Patented Case	
US10010096 BB	20180703	LSGT	+	granted / extensions (spc, cpc, pte)	
US10010096 BB	20190111	LSAS	AS	ASSIGNMENT	Owner: FIFTH THIRD BANK, OHIO Effective date: 20190101 PartyType: owner OldParty: SECURITY INTEREST;ASSIGNOR:DARIFILL, INC.;REEL/FRAME:048066/0848
US10010096 BB	20280306	PEXP		Calculated Patent Term Expiry	
US2008250754 AA	20081016	LSPB	+	published / reissued	
US2008250754 AA	20110105	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2011083400 AA	20101215	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:SPENCER, JACK D.;SPEARS, G. SCOTT;ROUSCULP, ERIC R.;REEL/FRAME:025506/0931 Owner: DARIFILL, INC., OHIO Effective date: 20080523 PartyType: owner
US2011083400 AA	20110414	LSPB	+	published /	

				reissued	
US2011083400 AA	20141030	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2011083400 AA	20141030		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2013067858 AA	20130321	LSPB	+	published / reissued	
US2013067858 AA	20151111	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2016081366 AA	20160324	LSPB	+	published / reissued	
US2016081366 AA	20170414		FRM1	Final Rejection Mailed	
US2016081366 AA	20171020		RFE1	Docketed New Case - Ready for Examination	
US2016081366 AA	20171127	LSES	NFA1	Non Final Action Mailed	
US2016081366 AA	20180316		RSP4	Response to Non-Final Office Action Entered and Forwarded to Examiner	
US2016081366 AA	20180421	LSES	ALW2	Allowed -- Notice of Allowance Not Yet Mailed	
US2016081366 AA	20180423	LSES	NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2016081366 AA	20180605	LSFE	PPV1	Publications -- Issue Fee Payment Verified	
US2016081366 AA	20180613	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US7874130 BB	20080620	LSAS	AS	ASSIGNMENT	Effective date: 20080523 Owner: DARIFILL, INC., OHIO OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:SPENCER, JACK D.;SPEARS, G. SCOTT;ROUSCULP, ERIC R.;REEL/FRAME:021148/0410 PartyType: owner
US7874130 BB	20110105	LSGT	PAT1	Patented Case	
US7874130 BB	20110125	LSGT	+	granted / extensions (spc, cpc, pte)	
US7874130 BB	20140905		REMI	MAINTENANCE FEE REMINDER MAILED	
US7874130 BB	20150112	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US7874130 BB	20150112		+SULP	SURCHARGE FOR LATE PAYMENT	
US7874130 BB	20180702	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	Year of fee payment: 8
US7874130 BB	20190111	LSAS	AS	ASSIGNMENT	OldParty: SECURITY INTEREST;ASSIGNOR:DARIFILL, INC.;REEL/FRAME:048066/0848 PartyType: owner Owner: FIFTH THIRD BANK, OHIO Effective date: 20190101
US7874130 BB	20280724	PEXP		Calculated Patent Term Expiry (PTA 140 days)	
US9199747 BB	20121116	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:SPEARS, SCOTT;ROUSCULP, ERIC;SPENCER, JACK;REEL/FRAME:029315/0478 Effective date: 20121116 Owner: DARIFILL, OHIO PartyType: owner
US9199747 BB	20151027	LSFE	PPV1	Publications -- Issue Fee Payment Verified	
US9199747 BB	20151111	LSGT	PAT1	Patented Case	

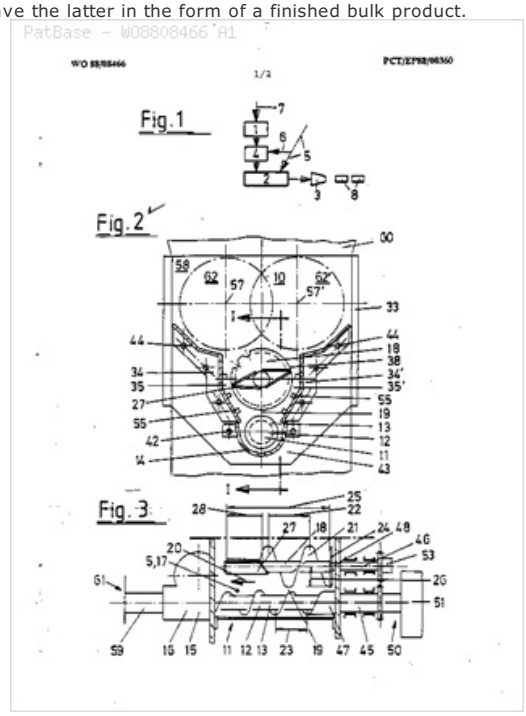
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US9199747 BB	20190424	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	Year of fee payment: 4
US9199747 BB	20290116	PEXP		Calculated Patent Term Expiry (PTA 316 days)	

43) Family number: 9364305 (WO8808466 A1)

Title: **EXTRUDER** AND PROCESS FOR **MANUFACTURE** OF EASY-TO-HANDLE MOULDED PARTS MADE OF **PAPER** WASTE

Abstract: A process for the **manufacture** of easy-to-handle moulder parts made of **paper** waste comprises a size reduction process (10), a first part of a conveying process (18), and a conveying process (13). In the conveying process (13), the size-reduced **paper** waste is conveyed to a mixing and compaction process (15) during which the adhesive compound which dissolves by itself on the addition of water during the first part of the conveying process (18) and towards the end of the conveying process (13), and the compound which dissolves due to wetting of the fibres, are reconstituted during moulding of the parts and yield, after evaporation and cooling, a bulk product which can be easily handled. Also described is a device for implementing the process, which comprises a size-reduction system (10), an intermediate **conveyor** (18) with a secondary size-reduction function, an **extruder** (13) having a conveying part in the region of which water is added by means of a nozzle (5), and a conical mixing and compacting part (15) which effects the moulding of the parts in a conical die orifice. These parts leave the die orifice and are positioned between the jaws (59) of a clamping device with which the mould pressure of the **extruder** is controlled, and leave the latter in the form of a finished bulk product.

Classifications:
International (IPC 8-9): B02C18/00 B30B9/00 B30B9/30 D21B1/00 D21B1/08
International (IPC 1-7): B30B11/24 D21B1/08
CPC: Y02W30/64 B02C18/0007 B02C2018/0061 B30B9/3035 B30B9/3089 D21B1/08



Family:

Publication number	Publication date	Application number	Application date
AT95858 E	19931015	AT19880903821T	19880428
DE3714624 A1	19881117	DE19873714624	19870501
DE3884941 D1	19931118	DE19883884941T	19880428
EP0335916 A1	19891011	EP19880903821	19880428
EP0335916 B1	19931013	EP19880903821	19880428
WO8808466 A1	19881103	WO1988EP00360	19880428

Priority:

DE19873714624 19870501 EP19880903821 19880428 WO1988EP00360 19880428
DE19883884941T 19880428

Probable Assignee: POETTINGER ALOIS LANDMASCH

Assignee(s): (std): POETTINGER ALOIS LANDMASCH ; POETTINGER ALOIS MASCHF ; POETTINGER OHG ALOIS

Assignee(s): ALOIS POETTINGER LANDMASCHINEN GES MBH ; ALOIS POETTINGER LANDMASCHINEN GESELLSCHAFT MBH ; ALOIS POETTINGER MASCHF GES MBH ; ALOIS POETTINGER MASCHF GMBH ; ALOIS POETTINGER MASCHINENFABRIK GES M B H GRIESKI ; ALOIS POETTINGER MASCHINENFABRIK GES M B H GRIESKIRCHEN AT ; ALOIS POETTINGER MASCHINENFABRIK GESELLSCHAFT M B ; ALOIS POETTINGER MASCHINENFABRIK GESELLSCHAFT M B H ; ALOIS POETTINGER MASCHINENFABRIK GMBH ; ALOIS POTTINGER MASCHF GMBH ; ALOIS POTTINGER MASCHINENFABRIK GMBH

Inventor(s): (std): FRAUSCHER JOSEF ; FRAUSCHER JOSEF ING ; GROISBOCK FRANZ ; GROISBOECK FRANZ ; GROISBOECK FRANZ ING ; LEPOSA WOLFGANG ; LEPOSA WOLFGANG ING ; POCHERSTORFER MANFRED ; POECHERSTORFER MANFRED ; POECHERSTORFER MANFRED ING ; POETTINGER HEINRICH ; POTTINGER HEINRICH

Inventor(s): FRAUSCHER JOSEF A 4942 GURTEN 50 AT ; GROISBOECK FRANZ A 4713 GALLSPACH AT ; LEPOSA WOLFGANG A 4710 GRIESKIRCHEN AT ; POECHERSTORFER MANFRED A 4724 NEUKIRCHEN A W 60 AT ; POETTINGER HEINRICH A 4710 GRIESKIRCHEN AT

Designated states: AT BE CH DE FR GB IT JP LI LU NL SE US

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AT95858 E	19931015	LSGT	+	granted / extensions (spc, cpc, pte)	
AT95858 E	20050115	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE	

				ANNUAL FEE	
AT95858 E	20080428	PEXP		Calculated Patent Term Expiry	
DE3714624 A1	19881117	LSPB	+	published / reissued	
DE3714624 A1	19910411	LSAS	8127	NEW PERSON/NAME/ADDRESS OF THE APPLICANT	PartyType: owner Owner: ALOIS POETTINGER LANDMASCHINEN GMBH, 8910 LANDSBER
DE3714624 A1	19920312	LSLI	8120	WILLINGNESS TO GRANT LICENCES PARAGRAPH 23	
DE3714624 A1	19940728	LSLE	-8141	DISPOSAL/NO REQUEST FOR EXAMINATION	
DE3884941 D1	19941110	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
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DE3884941 D1	20050217	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
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EP0335916 A1	19891011	LSPB	+	published / reissued	
EP0335916 A1	19891011	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 19890420
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EP0335916 A1	19911121	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 19911002
EP0335916 B1	19931013	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0335916 B1	19931013		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: B1 Country of Ref document: AT BE CH DE FR GB IT LI NL SE
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EP0335916 B1	19931013	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 19931013 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: IT
EP0335916 B1	19931013	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 19931013 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRE;WARNING: LAPSES OF ITALIAN PATENTS WITH EFFECTIVE DATE BEFORE 2007 MAY HAVE OCCURRED AT ANY TIME BEFORE 2007. THE CORRECT EFFECTIVE DATE MAY BE DIFFERENT FROM THE ONE RECORDED.SCRIBED TIME-LIMIT Country of Ref document: IT
EP0335916 B1	19931013		REF	CORRESPONDS TO:	Ref document number: 95858 Date of Ref document: 19931015 Kind code of Ref document: T Country of Ref document: AT
EP0335916 B1	19931118		REF	CORRESPONDS TO:	Date of Ref document: 19931118 Ref document number: 3884941 Country of Ref document: DE
EP0335916 B1	19940204		+ET	FR: TRANSLATION FILED	

EP0335916 B1	19940216		+GBT	GB: TRANSLATION OF EP PATENT FILED (GB SECTION 77(6) (A)/1977)	Effective date: 19940114
EP0335916 B1	19940316	LSLE	-NLV1	NL: LAPSED OR ANNULLED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT	Ref country code: EP
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EP0335916 B1	19970411	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 10 Payment date: 19970411 Country of Ref document: FR
EP0335916 B1	19980430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 19980430 NotificationOfLapse: THE PATENT HAS BEEN ANNULLED BY A DECISION OF A NATIONAL AUTHORITY Country of Ref document: FR
EP0335916 B1	19990205	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: ST Ref country code: FR
EP0335916 B1	20000418	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20000418 Year of fee payment: 13 Country of Ref document: GB
EP0335916 B1	20010428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20010428 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: GB
EP0335916 B1	20011219	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	Ref country code: EP Effective date: 20010428
EP0335916 B1	20030324	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20030324 Year of fee payment: 16 Country of Ref document: AT
EP0335916 B1	20030326	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 16 Payment date: 20030326 Country of Ref document: DE
EP0335916 B1	20030725	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20030725 Year of fee payment: 16 Country of Ref document: CH
EP0335916 B1	20040428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20040428 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: AT
EP0335916 B1	20040430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20040430 Country of Ref document: CH
EP0335916 B1	20040430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20040430

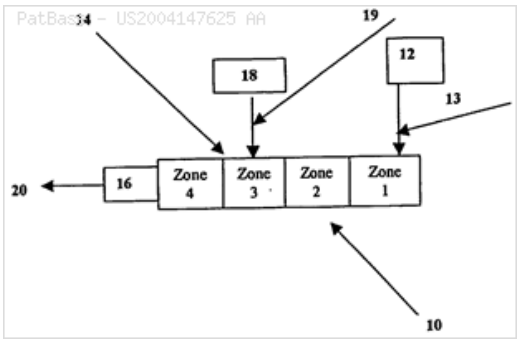
				INFORMATION FROM NATIONAL OFFICE TO EPO]	Country of Ref document: LI
EP0335916 B1	20041103	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20041103 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: DE
EP0335916 B1	20041215	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: PL Ref country code: CH
EP0335916 B1	20080428	PEXP		Calculated Patent Term Expiry	
WO8808466 A1	19881103	LSPB	+	published / reissued	
WO8808466 A1	19881103		+AK	DESIGNATED STATES	Kind code of Ref document: A1 Country of Ref document: JP US
WO8808466 A1	19881103		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: A1 Country of Ref document: AT BE CH DE FR GB IT LU NL SE
WO8808466 A1	19881221	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 1988903821 Country of Ref document: EP
WO8808466 A1	19891011	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: 1988903821 Country of Ref document: EP
WO8808466 A1	19931013	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	Ref document number: 1988903821 Country of Ref document: EP

44) Family number: 24127285 (US2004147625 AA)

Title: LOW-DENSITY CELLULAR WOOD PLASTIC COMPOSITE AND PROCESS FOR FORMATION

Abstract: A low-pressure CO 2 tank or an air compressor with a refrigerated air dryer is attached to the vent zone of a standard twin-**screw** **extruder**. During extrusion, the gas is dissolved in the wood-plastic melt. The CO 2 expands which foams the wood-plastic material.

Classifications:
International (IPC 8-9): B27N3/00 B27N3/28 B29C44/12 B29C44/20 B29C44/22 B29C44/34 B29C44/46 B29C47/00 B29C47/10 B29C47/34 B29C47/78 B29C47/90 B29C48/355 B29C48/90 C08J9/00 C08J9/12 C08L23/06 C08L97/02
International (IPC 1-7): B29C44/02 B29C44/20 B29C44/22 B29C44/34 C08J9/00 C08J9/12 C08L23/04 C08L23/06 C08L97/02
CPC: B27N3/005 B27N3/28 B29C2793/009 B29C44/12 B29C44/22 B29C44/3446 B29C44/348 B29C48/022 B29C48/09 B29C48/12 B29C48/285 B29C48/29 B29C48/295 B29C48/297 B29C48/355 B29C48/90 B29C48/903 B29C48/908 B29C48/913 B29C48/9135 B29K2105/0005 B29K2105/04 B29K2105/06 B29K2105/12 B29K2311/10 B29K2711/14 C08J2201/03 C08J2323/06 C08J9/0085 C08J9/122 B29C2791/006 B29C2948/92704 B29C2948/92904 B29C47/1063 B29C48/06 B29C48/07 B29C48/2556 B29C48/288 B29C48/2886 B29C48/793 B29C48/875 B29C48/904 B29C48/905 B29C48/916 B29C48/919 B29K2105/16
US: 264/177.2 264/177.200P 264/45.9 264/45.900P 264/50 264/51 264/51S 264/53 425/131.1 425/131.100S 425/133.5 425/308 425/308S 425/378.1 425/4 425/4.00C 425/4.00CS 425/4C 425/586 425/586S 521/134 521/134S 521/79 521/79P 527/103 527/103S



Family:

Publication number	Publication date	Application number	Application date
AU2002259018 AA	20021111	AU20020259018	20020426
AU2002259018 BB	20071108	AU20020259018	20020426
CA2445076 AA	20031021	CA20022445076	20020426
CA2445076 C	20100914	CA20022445076	20020426
CA2543712 AA	20060425	CA20042543712	20041027
CA2543712 C	20090616	CA20042543712	20041027
EP1381642 A1	20040121	EP20020728999	20020426
JP2004525241 T2	20040819	JP20020585527T	20020426
MXPA03009787 A1	20050307	MX2003PA09787	20020426
NZ529062 A	20051028	NZ20020529062	20020426
US7431872 BB	20081007	US20020474992	20020426
US2005067729 AA	20050331	US20030699599	20031027
US7186102 BB	20070306	US20030699599	20031027
US2004147625 AA	20040729	US20040474992	20040318
US2007023954 AA	20070201	US20060473473	20060624
WO02088233 A1	20021107	WO2002US13188	20020426
WO05044536 A2	20050519	WO2004US35661	20041027
WO05044536 A3	20050915	WO2004US35661	20041027

Priority:

US20010286848P 20010426 WO2002US13188 20020426 US20020474992 20020426
US20030699599 20031027 US20040474992 20040318 WO2004US35661 20041027
US20060473473 20060624

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Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU2002259018 AA	20021111	LSPB	+	published / reissued	
AU2002259018 BB	20071108	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2002259018 BB	20080306	LSGT	+FGA	LETTERS PATENT SEALED OR	

				GRANTED (STANDARD PATENT)	
AU2002259018 BB	20091119	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU2002259018 BB	20220426	PEXP		Calculated Patent Term Expiry	
CA2445076 AA	20031021	LSPB	+	published / reissued	
CA2445076 AA	20070418	LSES	+EEER	EXAMINATION REQUEST	
CA2445076 C	20100914	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2445076 C	20180607	LSLE	-MKLA	LAPSED	Effective date: 20180426
CA2445076 C	20220426	PEXP		Calculated Patent Term Expiry	
CA2543712 AA	20060425	LSPB	+	published / reissued	
CA2543712 AA	20080619	LSES	+EEER	EXAMINATION REQUEST	
CA2543712 C	20090616	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2543712 C	20241027	PEXP		Calculated Patent Term Expiry	
EP1381642 A1	20040121	LSPB	+	published / reissued	
EP1381642 A1	20040121	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20031119
EP1381642 A1	20040121		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR
EP1381642 A1	20040121		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Country of Ref document: AL LT LV MK RO SI
EP1381642 A1	20061018	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 20060217
EP1381642 A1	20080430	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	Effective date: 20071031
JP2004525241 T2	20040819	LSPB	+	published / reissued	
MXPA03009787 A1	20050307	LSPB	+	published / reissued	
NZ529062 A	20051028	LSPB	+	published / reissued	
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US2004147625 AA	20040729	LSPB	+	published / reissued	
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US2004147625 AA	20080917	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2005067729 AA	20050331	LSPB	+	published / reissued	
US2005067729 AA	20051017	LSAS	AS	ASSIGNMENT	PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:LAVER, TERRY C.;KELLER, BRIAN;ENGLAND, ALFRED B.;AND OTHERS;REEL/FRAME:017088/0896 Effective date: 20051005 Owner: STRANDEX CORPORATION, WISCONSIN
US2005067729 AA	20070214	LSGT	STCF	INFORMATION ON	Text: PATENTED CASE

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US2007023954 AA	20070201	LSPB	+	published / reissued	
US2007023954 AA	20080104	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2007023954 AA	20080104		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US7186102 BB	20070214	LSGT	PAT1	Patented Case	
US7186102 BB	20070306	LSGT	+	granted / extensions (spc, cpc, pte)	
US7186102 BB	20070508	LSRE	CC	CERTIFICATE OF CORRECTION	
US7186102 BB	20100806	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US7186102 BB	20140908	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US7186102 BB	20140915		+SULP	SURCHARGE FOR LATE PAYMENT	
US7186102 BB	20181022	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US7186102 BB	20190408	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	Text: PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US7186102 BB	20190408	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
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US7186102 BB	20190430	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20190306
US7186102 BB	20230121	PEXP		Calculated Patent Term Expiry (PTA 270 days)	
US7431872 BB	20080917	LSGT	PAT1	Patented Case	
US7431872 BB	20081007	LSGT	+	granted / extensions (spc, cpc, pte)	
US7431872 BB	20120409	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US7431872 BB	20160407	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US7431872 BB	20200525	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: MICROENTITY
US7431872 BB	20201109	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	Text: PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: MICROENTITY
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US7431872 BB	20201201	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20201007
US7431872 BB	20230521	PEXP		Calculated Patent Term Expiry (PTA 390 days)	
WO02088233 A1	20021107	LSPB	+	published / reissued	
WO02088233 A1	20021107		+AK	DESIGNATED STATES	Kind code of Ref document: A1 Country of Ref document: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW
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WO02088233 A1	20031021	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2445076 Country of Ref document: CA
WO02088233 A1	20031022	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 529062 Country of Ref document: NZ
WO02088233 A1	20031023	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2002585527 Country of Ref document: JP
WO02088233 A1	20031024	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: PA/a/2003/009787 Country of Ref document: MX
WO02088233 A1	20031027	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 10699599 Country of Ref document: US
WO02088233 A1	20031119	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2002728999 Country of Ref document: EP
WO02088233 A1	20040121	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: 2002728999 Country of Ref document: EP
WO02088233 A1	20040311	LSWD	REG	REFERENCE TO NATIONAL CODE	Ref legal event code: 8642 Ref country code: DE
WO02088233 A1	20040318	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 10474992 Country of Ref document: US
WO02088233 A1	20051028	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: 529062 Country of Ref document: NZ
WO02088233 A1	20060209	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	Ref document number: 529062 Country of Ref document: NZ
WO05044536 A2	20050519	LSPB	+	published / reissued	
WO05044536 A2	20050519		+AK	DESIGNATED STATES	Kind code of Ref document: A2 Country of Ref document: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
WO05044536 A2	20050519		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: A2 Country of Ref document: AM AT AZ BE BF BG BJ BW BY CF CG CH CI CM CY CZ DE DK EE ES FI FR GA GB GH GM GN GQ GR GW HU IE IT KE KG KZ LS LU MC MD ML MR MW MZ NA NE NL PL PT RO RU SD SE SI SK SL SN SZ TD TG TJ TM TR TZ UG ZM ZW
WO05044536 A2	20050713		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	
WO05044536 A3	20060425	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2543712 Country of Ref document: CA
WO05044536 A3	20061122	LSNE	-122	EP: PCT	Ref country code: WO

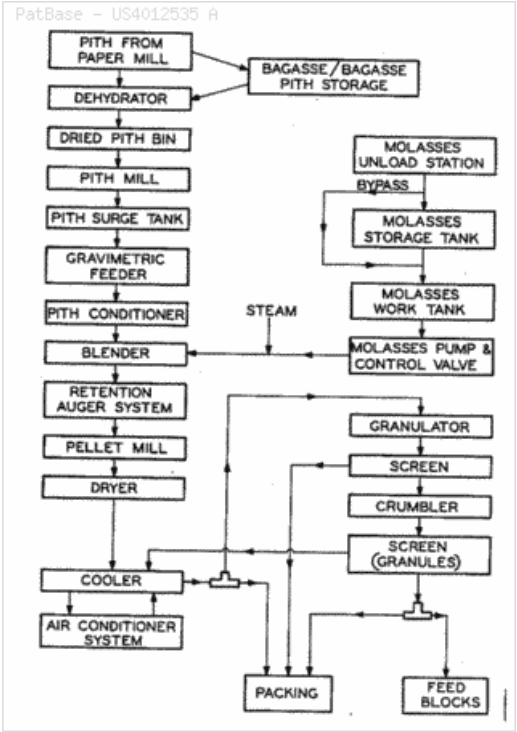
	APPLICATION NON-ENTRY IN EUROPEAN PHASE

45) Family number: 1376998 (US4012535 A)

Title: MOLASSES IMPREGNATED BAGASSE PITH ANIMAL **FEED**

Abstract: A process for making a dense, high molasses animal **feed** impregnated on a ground bagasse or bagasse pith carrier. The ground bagasse or bagasse pith is capable of absorbing up to about 5 times by weight high brix molasses to produce a **feed** product having about 30-55 percent by weight sugars determined as invert. The ground bagasse or bagasse pith, from which the major portion of the cane juice has been removed for the **manufacture** of cane sugar, is thoroughly mixed with molasses and the wet mixture, which contains from about 15-30 percent by weight water, is wet pelleted. Uniform penetration of molasses throughout the carrier is obtained. The molasses/bagasse (bagasse pith) pellets are then dried to a moisture level less than about 2-4 percent and cooled. The dry, dense pellets can then be packed and shipped without further processing, or they may be subjected to a crumbling step to make a granular product for blended animal **feeds** and as a principal component in molasses/salt blocks, and medicated **feeds**.

Classifications:
International (IPC 8-9): A23K1/02 A23K10/33
International (IPC 1-7): A23K1/02
CPC: A23K10/33 Y02P60/87
US: 426/623 426/636 426/658



Family:

Publication number	Publication date	Application number	Application date
US4012535 A	19770315	US19740502470	19740903

Priority:

US19740502470 19740903

Probable Assignee: STALEY MFG CO A E

Assignee(s): (std): STALEY MFG CO A E

Assignee(s): A E STALEY MANUFACTURING COMPANY ; A E STALEY MFG CO ; STALEY CONTINENTAL INC ; STALEY CONTINENTAL INC ROLLING MEADOWS ILLINOIS A DE CORP

Inventor(s): (std): FIALA RICHARD J ; SCOTT THOMAS L ; WRIGHT KENNETH N

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
US4012535 A	19770315	LSGT	+	granted / extensions (spc, cpc, pte)	
US4012535 A	19880624	LSAS	AS	ASSIGNMENT	Effective date: 19871229 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST. EFFECTIVE DEC. 30, 1987.;ASSIGNOR:A.E. STALEY MANUFACTURING COMPANY, A DE CORP.;REEL/FRAME:004935/0533 Owner: STALEY CONTINENTAL, INC., ROLLING MEADOWS, ILLINOI PartyType: owner
US4012535 A	19921103	LSGT	PTF1	Patented File - (Old Case Added for File Tracking Purposes)	
US4012535 A	19921103	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED FILE - (OLD CASE ADDED FOR FILE TRACKING PURPOSES)

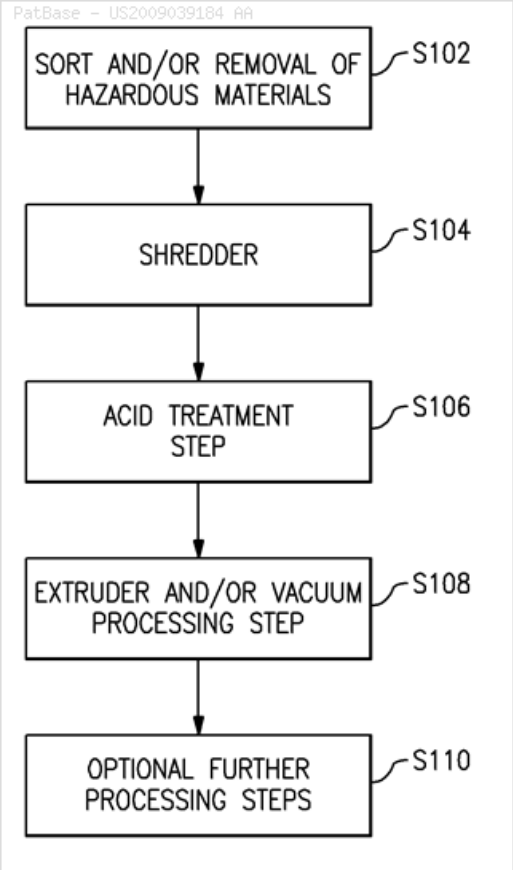
US4012535 A	19940903	PEXP	Calculated Patent Term Expiry

46) Family number: 42940457 (US2009039184 AA)

Title: WASTE PROCESSING PROCESS

Abstract: Waste processing system including a shredder, a grinder and a steam explosion device such as a cooking **extruder**. The waste processing system is used to process raw waste, such as consumer waste, into an end product such as pellets. One potential use for these pellets is pyrolization to form biogas. Because of the uniformity composition of the processing waste (see DEFINITIONS section), imparted by the shredder and grinder, and because of the uniformity of distribution of plastic in the processing waster, imparted by the steam explosion processing, the end-product made by systems according to the present invention are superior with respect to several physical characteristics and especially well suited for pyrolization to make biogas.

Classifications:
International (IPC 8-9): B02C19/00 B09B3/00 B29B17/00 C07C1/00 C10B51/00 C10B53/00 C10B53/07 C10L5/40 C10L5/46 F23G7/00
CPC: B09B3/00 B09B3/0083 B29B17/00 B29B2017/0496 C10B53/07 C10L5/363 C10L5/46 F23G2201/60 F23G2201/80 F23G2209/22 F23G2900/50206 F23G2900/50212 F23G5/02 F23G5/027 F23G7/12 Y02E50/10 Y02E50/30 Y02P20/143 Y02W30/62
US: 201/15 201/20 201/20P 201/21 201/25 241/152.2 241/152.200S 241/23 241/23S 241/3 241/3P 422/184.1 422/184.100P 585/241



Family:

Publication number	Publication date	Application number	Application date
US2009039184 AA	20090212	US20080188608	20080808
US2009041639 AA	20090212	US20080188635	20080808
US2009120778 AA	20090514	US20080189719	20080811
US7988830 BB	20110802	US20080189719	20080811
WO09023557 A2	20090219	WO2008US72598	20080808
WO09023557 A3	20090709	WO2008US72598	20080808
WO09023559 A2	20090219	WO2008US72602	20080808
WO09023559 A3	20091210	WO2008US72602	20080808
WO09023642 A2	20090219	WO2008US72821	20080811
WO09023642 A3	20090716	WO2008US72821	20080811

Priority:

US20070955114P 20070810 US20070986372P 20071108 US20080047993P 20080425
US20080048006P 20080425 US20080188608 20080808 US20080188635 20080808
US20080189719 20080811

Probable Assignee: VANDERPOOL WARREN

Assignee(s): (std): VANDERPOOL WARREN

Inventor(s): (std): VANDERPOOL WARREN

Agent(s): BOND SCHOENECK AND KING; BOND SCHOENECK AND KING PLLC; DAVID B; GEORGE R; MCGUIRE GEORGE ET AL; WOYCECHOWSKY DAVID ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US2009039184 AA	20090212	LSPB	+	published /	

				reissued	
US2009039184 AA	20110728	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2009039184 AA	20110728		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2009041639 AA	20090212	LSPB	+	published / reissued	
US2009041639 AA	20110929	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2009041639 AA	20110929		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2009120778 AA	20090514	LSPB	+	published / reissued	
US2009120778 AA	20110713	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US7988830 BB	20110713	LSGT	PAT1	Patented Case	
US7988830 BB	20110802	LSGT	+	granted / extensions (spc, cpc, pte)	
US7988830 BB	20150107	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US7988830 BB	20190325	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US7988830 BB	20190909	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	Text: PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US7988830 BB	20190909	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US7988830 BB	20190909	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US7988830 BB	20191001	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20190802
US7988830 BB	20290416	PEXP		Calculated Patent Term Expiry (PTA 248 days)	
WO09023557 A2	20090219	LSPB	+	published / reissued	
WO09023557 A2	20090408		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Ref document number: 08797465 Kind code of Ref document: A2 Country of Ref document: EP
WO09023557 A3	20100211	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO09023557 A3	20100901	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	Ref document number: 08797465 Kind code of Ref document: A2 Country of Ref document: EP
WO09023559 A2	20090219	LSPB	+	published / reissued	
WO09023559 A2	20090408		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Ref document number: 08797469 Kind code of Ref document: A2 Country of Ref document: EP
WO09023559 A3	20100211	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO09023559 A3	20100901	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	Ref document number: 08797469 Kind code of Ref document: A2 Country of Ref document: EP
WO09023642 A2	20090219	LSPB	+	published / reissued	
WO09023642 A2	20090408		121	EP: THE EPO HAS BEEN INFORMED BY	Ref document number: 08797636

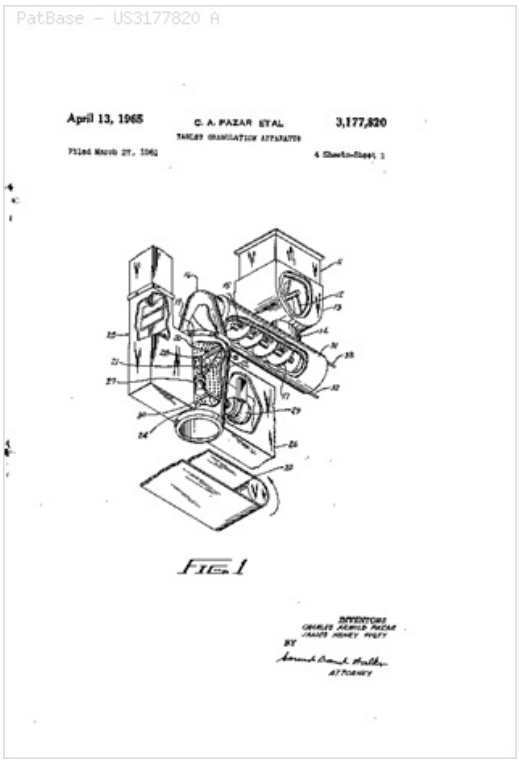
				WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Kind code of Ref document: A2 Country of Ref document: EP
WO09023642 A3	20100211	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO09023642 A3	20100901	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	Kind code of Ref document: A2 Ref document number: 08797636 Country of Ref document: EP

47) Family number: 22088953 (US3177820 A)

Title: TABLET GRANULATION APPARATUS

Abstract: (Claim 1) We claim: An apparatus for preparing pharmaceutical granulations comprising: an auger sleeve, an auger **screw** therein, a mixing hopper, a power-driven kneader in said hopper, 14 V" a **feed** tube from the mixing hopper to the inlet end of the aurger sleeve, means to rotate the auger **screw**, a discharge head having a right angle, to deflect the discharged granulation to a downward path, an extrusion orifice plate, having a plurality of extrusion orifices therein, having a diameter of from about 0.01-inch to about 0.05-inch, said orifices being of such a size that; the addition or removal of a single granule **extruded** therethrough will not appreciably alter the size and dosage of a tablet produced therefrom, a cooling jacket for the auger sleeve, whereby the plasticized mixture is cooled at the interface with the auger sleeve, thereby markedly increasing throughput, a perforated vertical case hardening duct, a drying air inlet to supply hot air to said duct, an exhaust air duct, **conveyor** means to remove the formed granules, said **conveyor** comprising a moving strip of fabric, means to flow warmed air through the fabric, a drying hopper in position to receive the discharge from the fabric strip, foraminous areas in said drying hopper, means to blow warmed air through said gear in the hopper, and conveying means to discharge the dried granules.

Classifications:
International (IPC 8-9): A61J3/00 A61J3/10 B30B11/00 B30B11/22
International (IPC 1-7): A61J A61J3/10
CPC: A61J2200/20 A61J3/00 A61J3/10 B30B11/005 B30B11/22
US: 425/198 425/200 425/308 425/72.1



Family:

Publication number	Publication date	Application number	Application date
BE602705 A	19611018	BE19610602705	19610418
US3177820 A	19650413	US19610098407	19610327

Priority:

US19600022876 19600418 US19610098407 19610327

Probable Assignee: AMERICAN CYANAMID CO
Assignee(s): (std): AMERICAN CYANAMID CO
Assignee(s): AMERICAN CYANAMID COMPANY
Inventor(s): (std): ARNOLD PAZAR CHARLES ; HENRY WILEY JAMES ; PAZAR CHARLES ARNOLD ; WILEY JAMES HENRY
Inventor(s): CHARLES ARNOLD PAZAR ; JAMES HENRY WILEY

Legal status (INPADOC)

View legal status timeline

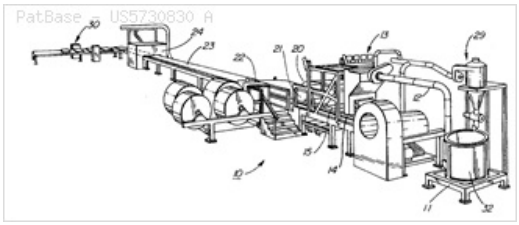
Patent	Date recorded	Event group	Code	Event	Details
BE602705 A	19611018	LSPB	+	published / reissued	
US3177820 A	19650413	LSGT	+	granted / extensions (spc, cpc, pte)	

48) Family number: 20725059 (US5730830 A)

Title: FIBER PANEL **MANUFACTURING** METHOD AND APPARATUS

Abstract: Apparatus and method for forming structural panel members from fiber crop material such as rice, straw and the like. The fiber crop material is bailed into circular or rectangular bails which bails are placed in a debailer/shredder. The fiber material is cut to a predetermined length and conveyed pneumatically to a **compression** chamber. A ram **compresses** the fiber into a rectangular slot between upper and lower platen members. **Paper** is applied with glue to the upper and lower surfaces of the fiber and is folded up to cover the sides of the fiber. The glue is cured on a curing table and the fiber is severed in a cutting section into desired lengths.

Classifications:
International (IPC 8-9): B27N1/00 B27N3/00 B27N3/04 B27N3/06
International (IPC 1-7): B02C19/12 B27N3/04 B27N3/12 B27N3/18 E04B E04C2/16 E04C2/284
CPC: B27N1/00 B27N3/04 B27N3/06 Y10S241/605 Y10T156/125 Y10T156/1348 Y10T156/1798
US: 156/468 156/475 156/511 156/523 156/578 156/580 241/101.01 241/186.4 241/224 241/605



Family:

Publication number	Publication date	Application number	Application date
AU199714657 A1	19970801	AU19970014657	19961223
US5730830 A	19980324	US19950578322	19951226
WO9725490 A2	19970717	WO1996US20345	19961223

Priority:
US19950578322 19951226 WO1996US20345 19961223

Probable Assignee: ENVIRO BOARD CORP
Assignee(s): (std): HADDONFIELD MANAGEMENT CO LTD ; HALL LORNE D
Assignee(s): ENVIRO BOARD CORP ; HADDONFIELD MANAGEMENT CO
Inventor(s): (std): HALL LORNE D
Designated states: AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CN CU CZ DE DK EE ES FI FR GB GE GR HU IE IL IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MC MD MG MK MN MW MX NL NO NZ PL PT RO RU SD SE SG SI SK SZ TJ TM TR TT UA UG US UZ VN

Legal status (INPADOC)

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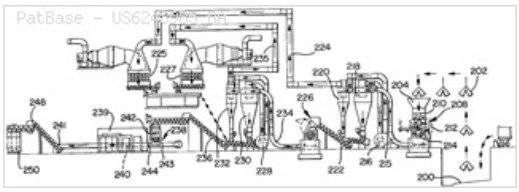
Patent	Date recorded	Event group	Code	Event	Details
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US5730830 A	19960617	LSAS	AS	ASSIGNMENT	Effective date: 19951204 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:HALL, LORNE D.;REEL/FRAME:008207/0733 Owner: HADDONFIELD MANAGEMENT CO., CALIFORNIA PartyType: owner
US5730830 A	19980324	LSGT	+	granted / extensions (spc, cpc, pte)	
US5730830 A	19991004	LSAS	AS	ASSIGNMENT	Effective date: 19980901 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:HADDONFIELD MANAGEMENT CO. LTD.;REEL/FRAME:010281/0296 Owner: ENVIRO BOARD CORPORATION, CALIFORNIA PartyType: owner
US5730830 A	20010909	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5730830 A	20050823	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US5730830 A	20091026		REMI	MAINTENANCE FEE REMINDER MAILED	
US5730830 A	20100324	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5730830 A	20100324	LSRE	+REIN	REINSTATEMENT AFTER MAINTENANCE FEE PAYMENT CONFIRMED	
US5730830 A	20100511	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20100324
US5730830 A	20110207	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12

US5730830 A	20110207	LSGT	PAT1	Patented Case	
US5730830 A	20110207	LSRE	+PRDP	PATENT REINSTATED DUE TO THE ACCEPTANCE OF A LATE MAINTENANCE FEE	Effective date: 20110207
US5730830 A	20110207	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US5730830 A	20110207		+SULP	SURCHARGE FOR LATE PAYMENT	
US5730830 A	20151226	PEXP		Calculated Patent Term Expiry	
WO9725490 A2	19970717	LSPB	+	published / reissued	
WO9725490 A2	19970717		+AK	DESIGNATED STATES	Kind code of Ref document: A2 Country of Ref document: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN
WO9725490 A2	19970717		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: A2 Country of Ref document: AT BE BF BJ CF CG CH DE DK ES FI FR GB GR IE IT KE LS LU MC MW NL PT SD SE SZ UG
WO9725490 A2	19970731	LSWD	-WA	WITHDRAWAL OF INTERNATIONAL APPLICATION	
WO9725490 A2	19971015		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	
WO9725490 A2	19980430	LSWD	REG	REFERENCE TO NATIONAL CODE	Ref country code: DE Ref legal event code: 8642
WO9725490 A2	19981209	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	Ref country code: WO

49) Family number: 20684525 (US6248985 BA)

Title: APPARATUS AND METHOD FOR THE DISINFECTION OF MEDICAL WASTE IN A CONTINUOUS MANNER

Abstract: A method of processing medical waste which includes the steps of continuously **feeding** medical waste into a tube and heating the medical waste passing through the tube with electromagnetic radiation so as to heat and disinfect the medical waste.



Classifications:
International (IPC 8-9): A61G12/00 A61L11/00 A61L2/00 A61L2/08 A61L2/12 B01J19/12 B01J3/04 B09B3/00 H05B6/54 H05B6/62 H05B6/64 H05B6/78 H05B6/80
International (IPC 1-7): A61G12/00 A61L101/02 A61L101/46 A61L11/00 A61L2/00 A61L2/08 A61L2/12 B01J19/12 B01J3/04 B09B3/00 H05B6/54 H05B6/62 H05B6/64 H05B6/78 H05B6/80
CPC: A61L11/00 A61L2/08 B01J19/129 B09B3/0075 H05B2206/045 H05B2206/046 H05B6/78 H05B6/786 Y10S241/606
US: 219/651 219/679 219/762 219/770 219/774 219/775 241/606 422/22 44/552

Family:

Publication number	Publication date	Application number	Application date
AU199942042 A1	19991220	AU19990042042	19990525
BRPI9806362 A	20000411	BR1998PI06362	19980601
CA2334398 AA	20001201	CA19992334398	19990525
DK1083939 T3	20050815	DK19990925830T	19990525
EP1083939 A1	20010321	EP19990925830	19990525
EP1083939 A4	20010912	EP19990925830	19990525
EP1083939 B1	20050420	EP19990925830	19990525
ES2239444 T3	20050916	ES19990925830T	19990525
JP2002516720 T2	20020611	JP20000551820T	19990525
JP4107546 B2	20080625	JP20000551820T	19990525
KR20010052476 A	20010625	KR20007013570	19990525
US6248985 BA	20010619	US19990238525	19990127
US6344638 BA	20020205	US20000571783	20000516
WO9962566 A1	19991209	WO1999US11536	19990525
ZA200006488 A	20020211	ZA20000006488	20001109

Priority:
BR1998PI06362 19980601 US19990238525 19990127 WO1999US11536 19990525 US20000571783 20000516

Probable Assignee: STERICYCLE INC
Assignee(s): (std): STERICYCLE INC ; STERICYCLE INT LLC ; STERICYCLE INTERNATIONAL LLC ; TOMASELLO ANTHONY J
Assignee(s): BANK OF AMERICA NA ; BANK OF AMERICA NA ADMINISTRATIVE AGENT AS
Inventor(s): (std): TOMASELLO ANTHONY J ; TOMASELLO ANTONHY J
Inventor(s): ANTHONY J TOMASELLO ; ANTONHY J TOMASELLO
Agent(s): BRINKS HOFER GILSON AND LIONE; CASSAN MACLEAN; CHIBA AKIO; KOBAYASHI YASUSHI; MASUI CHUJI; SHAMOTO ICHIO; TOMITA HIROYUKI
Designated states: AE AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CU CY CZ DE DK EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT UA UG US UZ VN YU ZA ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU199942042 A1	19991220	LSPB	+	published / reissued	
AU199942042 A1	20010222	LSLE	-MK6	APPLICATION LAPSED SECTION 142(2) (F)/REG. 8.3(3) - PCT APPLIC. NOT ENTERING NATIONAL PHASE	
BRPI9806362 A	20000411	LSPB	+	published / reissued	
BRPI9806362 A	20050322	LSAS	B25G	REQUESTED CHANGE OF HEADQUARTER APPROVED	
BRPI9806362 A	20050329	LSAS	B25A	REQUESTED TRANSFER OF RIGHTS APPROVED	Text: STERICYCLE INTERNATIONAL, LLC (US)
BRPI9806362 A	20081209	LSES	B07A	TECHNICAL EXAMINATION (OPINION): PUBLICATION OF TECHNICAL EXAMINATION (OPINION)	

BRPI9806362 A	20090714	LSES	B07A	TECHNICAL EXAMINATION (OPINION): PUBLICATION OF TECHNICAL EXAMINATION (OPINION)	
BRPI9806362 A	20100413	LSRV	B09B	DECISION: REFUSAL	Text: INDEFIRO O PEDIDO DE ACORDO COM O(S) ARTIGO(S) 8O E 13 DA LPI.
BRPI9806362 A	20101013	LSRV	B09B	DECISION: REFUSAL	Text: MANTIDO O INDEFERIMENTO UMA VEZ QUE NAO FOI APRESENTADO RECURSO DENTRO DO PRAZO LEGAL.
CA2334398 AA	20001201	LSPB	+	published / reissued	
CA2334398 AA	20001213	LSES	+EEER	EXAMINATION REQUEST	
CA2334398 AA	20060501	LSLE	-FZDE	DEAD	
DK1083939 T3	20050815	LSGT	+	granted / extensions (spc, cpc, pte)	
DK1083939 T3	20190525	PEXP		Calculated Patent Term Expiry	
EP1083939 A1	20010321	LSPB	+	published / reissued	
EP1083939 A1	20010321	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20001109
EP1083939 A1	20010321		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: DK ES FR GB IT SE
EP1083939 A4	20010912	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	Effective date: 20010727
EP1083939 A4	20010912		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A4 Country of Ref document: DK ES FR GB IT SE
EP1083939 A4	20010912		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	Text: 7A 61L 11/00 A, 7A 61L 2/08 B, 7B 01J 19/12 B, 7H 05B 6/64 B, 7H 05B 6/78 B
EP1083939 A4	20040512	LSAS	RAP1	PARTY DATA CHANGED (APPLICANT DATA CHANGED OR RIGHTS OF AN APPLICATION TRANSFERRED)	Owner: STERICYCLE INTERNATIONAL, LLC PartyType: owner
EP1083939 A4	20040630	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 20040514
EP1083939 B1	20050420	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1083939 B1	20050420		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: B1 Country of Ref document: DK ES FR GB IT SE
EP1083939 B1	20050420	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref country code: GB Ref legal event code: FG4D
EP1083939 B1	20050607		REG	REFERENCE TO A NATIONAL CODE	Ref country code: SE Ref legal event code: TRGR
EP1083939 B1	20050815		REG	REFERENCE TO A NATIONAL CODE	Ref country code: DK Ref legal event code: T3
EP1083939 B1	20050916	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref country code: ES Ref legal event code: FG2A Ref document number: 2239444 Kind code of Ref document: T3 Country of Ref document: ES
EP1083939 B1	20060317		+ET	FR: TRANSLATION FILED	
EP1083939 B1	20060412	LSGT	+26N	NO OPPOSITION FILED	Effective date: 20060123
EP1083939 B1	20080104	LSWD	REG	REFERENCE TO A	Ref country code: HK

				NATIONAL CODE	Ref document number: 1033556 Ref legal event code: WD Country of Ref document: HK
EP1083939 B1	20100730	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 12 Payment date: 20100407 Country of Ref document: DK
EP1083939 B1	20100730	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 12 Payment date: 20100514 Country of Ref document: ES
EP1083939 B1	20100730	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 12 Payment date: 20100525 Country of Ref document: FR
EP1083939 B1	20100831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 12 Payment date: 20100513 Country of Ref document: IT
EP1083939 B1	20101130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20100401 Year of fee payment: 12 Country of Ref document: GB
EP1083939 B1	20101130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20100507 Year of fee payment: 12 Country of Ref document: SE
EP1083939 B1	20120109	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: EBP Ref country code: DK
EP1083939 B1	20120110	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: SE Ref legal event code: EUG
EP1083939 B1	20120125	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	Effective date: 20110525 Ref country code: EP
EP1083939 B1	20120217	LSLE	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20120131 Ref legal event code: ST Ref country code: FR
EP1083939 B1	20120229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20110525 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: IT
EP1083939 B1	20120430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20110531 Country of Ref document: FR
EP1083939 B1	20120629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20110531 Country of Ref document: DK
EP1083939 B1	20120629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE	Lapsed date: 20110525 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES

				[ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Country of Ref document: GB
EP1083939 B1	20121116	LSLE	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20121116 Ref legal event code: FD2A Ref country code: ES
EP1083939 B1	20130228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20110526 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: ES
EP1083939 B1	20130430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20110526 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: SE
EP1083939 B1	20190525	PEXP		Calculated Patent Term Expiry	
ES2239444 T3	20050916	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2239444 T3	20190525	PEXP		Calculated Patent Term Expiry	
JP2002516720 T2	20020611	LSPB	+	published / reissued	
JP2002516720 T2	20040413	LSAS	A711	NOTIFICATION OF CHANGE IN APPLICANT	Effective date: 20040412 Text: JAPANESE INTERMEDIATE CODE: A711
JP2002516720 T2	20040514	LSRE	A521	WRITTEN AMENDMENT	Effective date: 20040412 Text: JAPANESE INTERMEDIATE CODE: A821
JP2002516720 T2	20060414		A977	REPORT ON RETRIEVAL	Effective date: 20060414 Text: JAPANESE INTERMEDIATE CODE: A971007
JP2002516720 T2	20060524	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Effective date: 20060523 Text: JAPANESE INTERMEDIATE CODE: A131
JP2002516720 T2	20060815	LSRE	A521	WRITTEN AMENDMENT	Text: JAPANESE INTERMEDIATE CODE: A523 Effective date: 20060814
JP2002516720 T2	20070914	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Effective date: 20070913 Text: JAPANESE INTERMEDIATE CODE: A131
JP2002516720 T2	20071213		A601	WRITTEN REQUEST FOR EXTENSION OF TIME	Effective date: 20071212 Text: JAPANESE INTERMEDIATE CODE: A601
JP2002516720 T2	20071220		A602	WRITTEN PERMISSION OF EXTENSION OF TIME	Effective date: 20071219 Text: JAPANESE INTERMEDIATE CODE: A602
JP2002516720 T2	20080223	LSRE	A521	WRITTEN AMENDMENT	Text: JAPANESE INTERMEDIATE CODE: A523 Effective date: 20080222
JP2002516720 T2	20080312	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2002516720 T2	20080317	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	Effective date: 20080314 Text: JAPANESE INTERMEDIATE CODE: A01
JP2002516720 T2	20080322	LSRE	A521	WRITTEN AMENDMENT	Text: JAPANESE INTERMEDIATE CODE: A821 Effective date: 20080222
JP2002516720 T2	20080403	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	Effective date: 20080328 Text: JAPANESE INTERMEDIATE CODE: A61
JP2002516720 T2	20080411	LSFE	+FPAY	RENEWAL FEE	Year of fee payment: 3

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JP2002516720 T2	20080411	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	Text: JAPANESE INTERMEDIATE CODE: R150
JP4107546 B2	20080321	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP4107546 B2	20080401	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP4107546 B2	20080411	LSGT	+R150	特許証 (Patent certificate)	
JP4107546 B2	20080625	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4107546 B2	20110407	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4107546 B2	20110412	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	Year of fee payment: 4
JP4107546 B2	20110412	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	
JP4107546 B2	20120405	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4107546 B2	20120410	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	Year of fee payment: 5
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JP4107546 B2	20130404	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4107546 B2	20130409	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	Year of fee payment: 6
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JP4107546 B2	20140410	LSFE	R20	特許料納付書 (Patent fee payment form)	
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JP4107546 B2	20140415	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	
JP4107546 B2	20150416	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4107546 B2	20150421	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
JP4107546 B2	20150421	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	
JP4107546 B2	20160414	LSFE	R20	特許料納付書 (Patent fee payment form)	

JP4107546 B2	20160419	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
JP4107546 B2	20160419	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	
JP4107546 B2	20170518	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4107546 B2	20170523	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
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JP4107546 B2	20180405	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4107546 B2	20180410	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
JP4107546 B2	20180410	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	
JP4107546 B2	20190404	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP4107546 B2	20190409	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
JP4107546 B2	20190409	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	
JP4107546 B2	20190525	PEXP		Calculated Patent Term Expiry	
JP4107546 B2	20190525	LSLE	-EXPY	CANCELLATION BECAUSE OF COMPLETION OF TERM	
KR20010052476 A	20010625	LSPB	+	published / reissued	
KR20010052476 A	20040212	LSAS	N231	NOTIFICATION OF CHANGE OF APPLICANT	
KR20010052476 A	20040419	LSES	A201	REQUEST FOR EXAMINATION	
KR20010052476 A	20051219	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20010052476 A	20060829	LSRV	-E601	DECISION TO REFUSE APPLICATION	
US6248985 BA	19990412	LSAS	AS	ASSIGNMENT	Owner: STERICYCLE, INC., ILLINOIS PartyType: owner Effective date: 19990331 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:TOMASELLO, ANTHONY J.;REEL/FRAME:009889/0265
US6248985 BA	20010531	LSGT	PAT1	Patented Case	
US6248985 BA	20010531	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US6248985 BA	20010619	LSGT	+	granted / extensions (spc, cpc, pte)	
US6248985 BA	20011127	LSAS	AS	ASSIGNMENT	OldParty: SECURITY AGREEMENT;ASSIGNOR:STERLCYCLE, INC.;REEL/FRAME:012322/0013 PartyType: owner Owner: BANK OF AMERICA, N.A., ILLINOIS Effective date: 20011009
US6248985 BA	20040917	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US6248985 BA	20081014	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8

US6248985 BA	20130128		REMI	MAINTENANCE FEE REMINDER MAILED	
US6248985 BA	20130617	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US6248985 BA	20130617		+SULP	SURCHARGE FOR LATE PAYMENT	Year of fee payment: 11
US6248985 BA	20190127	PEXP		Calculated Patent Term Expiry	
US6248985 BA	20200224	LSAS	AS	ASSIGNMENT	Effective date: 20200224 OldParty: RELEASE BY SECURED PARTY;ASSIGNOR:BANK OF AMERICA, N.A. (AS SUCCESSOR IN INTEREST TO LASALLE NATIONAL BANK), AS ADMINISTRATIVE AGENT;REEL/FRAME:051908/0581 PartyType: owner Owner: STERICYCLE, INC., ILLINOIS
US6248985 BA	20200226	LSAS	AS	ASSIGNMENT	Effective date: 20200225 OldParty: SECURITY INTEREST;ASSIGNOR:STERICYCLE, INC.;REEL/FRAME:051939/0681 PartyType: owner Owner: BANK OF AMERICA, N.A., AS ADMINISTRATIVE AGENT, NORTH CAROLINA
US6344638 BA	20011127	LSAS	AS	ASSIGNMENT	Effective date: 20011009 Owner: BANK OF AMERICA, N.A., ILLINOIS OldParty: SECURITY AGREEMENT;ASSIGNOR:STERLCYCLE, INC.;REEL/FRAME:012322/0013 PartyType: owner
US6344638 BA	20020118	LSGT	PAT1	Patented Case	
US6344638 BA	20020118	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US6344638 BA	20020205	LSGT	+	granted / extensions (spc, cpc, pte)	
US6344638 BA	20021217	LSRE	CC	CERTIFICATE OF CORRECTION	
US6344638 BA	20050802	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US6344638 BA	20090526	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US6344638 BA	20130805	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US6344638 BA	20200224	LSAS	AS	ASSIGNMENT	OldParty: RELEASE BY SECURED PARTY;ASSIGNOR:BANK OF AMERICA, N.A. (AS SUCCESSOR IN INTEREST TO LASALLE NATIONAL BANK), AS ADMINISTRATIVE AGENT;REEL/FRAME:051908/0581 Owner: STERICYCLE, INC., ILLINOIS PartyType: owner Effective date: 20200224
US6344638 BA	20200226	LSAS	AS	ASSIGNMENT	Owner: BANK OF AMERICA, N.A., AS ADMINISTRATIVE AGENT, NORTH CAROLINA OldParty: SECURITY INTEREST;ASSIGNOR:STERICYCLE, INC.;REEL/FRAME:051939/0681 PartyType: owner Effective date: 20200225
US6344638 BA	20200516	PEXP		Calculated Patent Term Expiry	
WO9962566 A1	19991209	LSPB	+	published / reissued	
WO9962566 A1	19991209		+AK	DESIGNATED STATES	Kind code of Ref document: A1 Country of Ref document: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW
WO9962566 A1	19991209		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: A1 Country of Ref document: AM AT AZ BE BF BJ BY CF CG CH CI CM CY DE DK ES FI FR GA GB GH GM GN GR GW IE IT KE KG KZ LS LU MC MD ML MR MW NE NL PT RU SD SE SL SN SZ TD TG TJ TM UG ZW
WO9962566 A1	20000202		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	
WO9962566 A1	20000309		DFPE	REQUEST FOR	

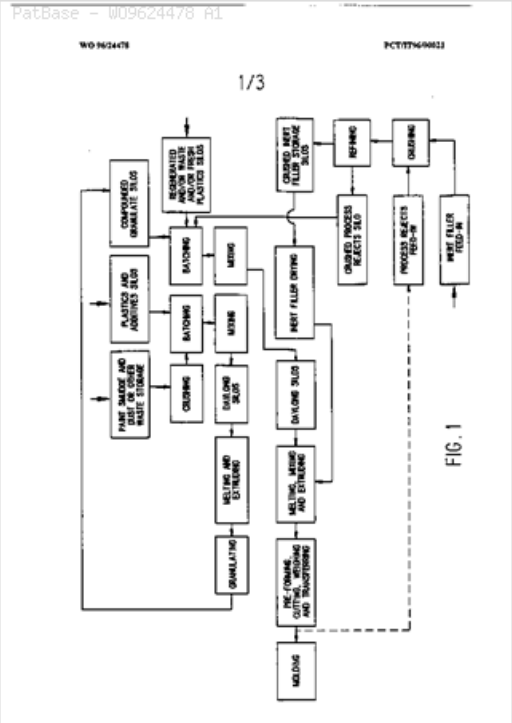
				PRELIMINARY EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH MONTH FROM PRIORITY DATE (PCT APPLICATION FILED BEFORE 20040101)	
WO9962566 A1	20001109	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 1999925830 Country of Ref document: EP
WO9962566 A1	20001130	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: PA/a/2000/011846 Country of Ref document: MX
WO9962566 A1	20001201	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 2334398 Country of Ref document: CA
WO9962566 A1	20001201	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 2000 551820 Kind code of Ref document: A Country of Ref document: JP
WO9962566 A1	20001201	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 1020007013570 Country of Ref document: KR
WO9962566 A1	20010321	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: 1999925830 Country of Ref document: EP
WO9962566 A1	20010405	LSWD	REG	REFERENCE TO NATIONAL CODE	Ref country code: DE Ref legal event code: 8642
WO9962566 A1	20010625	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: 1020007013570 Country of Ref document: KR
WO9962566 A1	20050420	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	Ref document number: 1999925830 Country of Ref document: EP
WO9962566 A1	20060829	LSRV	-WWR	WIPO INFORMATION: REFUSED IN NATIONAL OFFICE	Ref document number: 1020007013570 Country of Ref document: KR
ZA200006488 A	20020211	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA200006488 A	20201108	PEXP		Calculated Patent Term Expiry	

50) Family number: 29004033 (WO9624478 A1)

Title: AN APPARATUS FOR PROCESSING AND FORMING PLASTICS SCRAP MATERIALS

Abstract: An apparatus for processing plastics scraps, in particular an apparatus constituting an automatic supply, extrusion, and molding line for a thermoplastic composite which is mainly or entirely comprised of scrap or even waste materials, comprising means of forming a thermoplastic composite and **feeding** conformant portions thereof into a press for the production of semi-finished and/or finished pieces.

Classifications:
International (IPC 8-9): B29B17/00 B29B17/02
International (IPC 1-7): B29B17/00 B29B17/02
CPC: B29B17/0042 B29B17/02 B29K2023/06 B29K2023/12 B29K2705/00 B29K2705/12 Y02W30/62



Family:

Publication number	Publication date	Application number	Application date
IT1275184 B	19970730	IT1995MI00241	19950210
ITMI950241 A0	19950210	IT1995MI00241	19950210
ITMI950241 A1	19960812	IT1995MI00241	19950210
WO9624478 A1	19960815	WO1996IT00021	19960207

Priority:
IT1995MI00241 19950210

Probable Assignee: RIMOLDI SRL
Assignee(s): (std): RIMOLDI FRANCO ; RIMOLDI RENATO ; RIMOLDI SRL
Inventor(s): (std): RIMOLDI FRANCO ; RIMOLDI RENATO
Designated states: AT BE CA CH DE DK ES FR GB GR IE IT LU MC MX NL PT RU SE US

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
IT1275184 B	19970730	LSGT	+	granted / extensions (spc, cpc, pte)	
IT1275184 B	19970730	LSGT	0001	GRANTED	
IT1275184 B	20150210	PEXP		Calculated Patent Term Expiry	
ITMI950241 A1	19960812	LSPB	+	published / reissued	
WO9624478 A1	19960815	LSPB	+	published / reissued	
WO9624478 A1	19960815		+AK	DESIGNATED STATES	Kind code of Ref document: A1 Country of Ref document: CA MX RU US
WO9624478 A1	19960815		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: A1 Country of Ref document: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
WO9624478 A1	19961017		DFPE	REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH MONTH FROM	

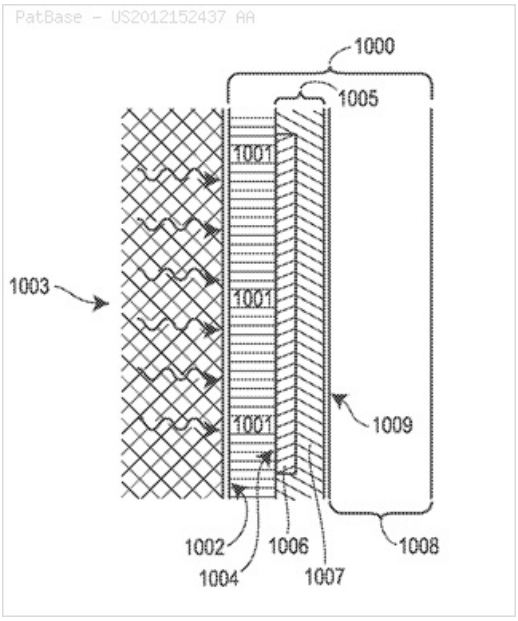
				PRIORITY DATE (PCT APPLICATION FILED BEFORE 20040101)	
WO9624478 A1	19961106		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	
WO9624478 A1	19980722	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	Ref country code: WO

51) Family number: 51110670 (US2012152437 AA)

Title: INDUCTION WELDED WATERPROOFING

Abstract: In accordance with an embodiment of the disclosure, A water-proofing laminate includes a drainboard having a first surface positioned against a hydraulic source and a second surface opposed to the first surface, a fastener plate positioned against the second surface of the drainboard securing the drainboard to the hydraulic surface, the fastener plate comprising a conductive element and a thermoplastic resin, and a self-healing hydraulic barrier comprising a thermoplastic surface adjoined to a geotextile and carrying a water-absorbent material, the thermoplastic surface inductively welded to the fastener plate.

Classifications:
International (IPC 8-9): B29C65/32 B29C65/48 B29C65/56 B29D99/00 B32B27/00 B32B27/12 B32B3/06 B32B37/12 B32B38/18 B32B43/00 B32B7/04 B32B7/08 C09J5/06 E02D31/00 E04B2/96 E04F13/07 E04F13/09 E04F13/21 E04F13/24 E21D11/38
CPC: B29D99/001 B32B2038/166 B32B2307/718 B32B2307/7246 B32B2309/02 B32B2310/0812 B32B2419/00 B32B3/06 B32B37/00 E02D31/004 E02D31/02 E04F13/21 E21D11/383 Y10T156/10 Y10T428/24008
US: 156/272.2 156/272.200S 156/272.4 156/308.2 156/308.4 156/60 156/60S 156/71 156/71P 156/91 156/92 156/92S 428/99 428/99S



Family:

Publication number	Publication date	Application number	Application date
AU2011326113 AA	20130502	AU20110326113	20111108
BR112013011465 A2	20160809	BR20131111465	20111108
CA2817075 AA	20130506	CA20112817075	20111108
CL2013001263 A1	20131011	CL20130001263	20130507
EP2638247 A2	20130918	EP20110782520	20111108
IN04294CN2013 A	20160610	IN2013CN04294	20130604
JP2014503715 T2	20140213	JP20130537926T	20111108
SG190687 A1	20130731	SG20130035142	20111108
US2012152437 AA	20120621	US20110291614	20111108
US8454773 BB	20130604	US20110291614	20111108
US2013302557 AA	20131114	US20130867771	20130422
WO12064698 A2	20120518	WO2011US59716	20111108
WO12064698 A3	20121206	WO2011US59716	20111108

Priority:

US20100411002P 20101108 WO2011US59716 20111108 US20110291614 20111108 US20130867771 20130422

Probable Assignee: AMCOL INT CORP

Assignee(s): (std): AMCOL INT CORP ; CISNEROS ROBERT

Assignee(s): AMCOL INTERNATIONAL CORPORATION ; JPMORGAN CHASE BANK NA ADMINISTRATIVE AGENT AS

Inventor(s): (std): CISNEROS ROBERT

Inventor(s): ROBERT CISNEROS

Agent(s): BANZER HANS JOERG; BURNETTE JENNIFER ET AL; CLARKE MODET AND CO CHILE LIMITADA; GRIFFITH HACK; MARSHALL GERSTEIN AND BORUN LLP; PATENT CORPORATE BODY ARCO PATENT OFFICE; ROBIC

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU2011326113 AA	20120518	LSPB	+	published / reissued	
AU2011326113 AA	20160602	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE	

				APPLICATION	
BR112013011465 A2	20160809	LSPB	+	published / reissued	
BR112013011465 A2	20160920	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	Text: REFERENTE A 5A ANUIDADE.
BR112013011465 A2	20170110	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	Text: EM VIRTUDE DO ARQUIVAMENTO PUBLICADO NA RPI 2385 DE 20-09-2016 E CONSIDERANDO AUSENCIA DE MANIFESTACAO DENTRO DOS PRAZOS LEGAIS, INFORMO QUE CABE SER MANTIDO O ARQUIVAMENTO DO PEDIDO DE PATENTE, CONFORME O DISPOSTO NO ARTIGO 12, DA RESOLUCAO 113/2013.
CA2817075 AA	20130506	LSPB	+	published / reissued	
CA2817075 AA	20161221	LSLE	-FZDE	DEAD	Effective date: 20161109
CL2013001263 A1	20131011	LSPB	+	published / reissued	
EP2638247 A2	20130918	LSPB	+	published / reissued	
EP2638247 A2	20130918	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20130603
EP2638247 A2	20130918		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A2 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP2638247 A2	20140212		DAX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT (DELETED)	
EP2638247 A2	20161109	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	Effective date: 20160601
IN04294CN2013 A	20160610	LSPB	+	published / reissued	
JP2014503715 T2	20140213	LSPB	+	published / reissued	
JP2014503715 T2	20140826	LSRE	A521	WRITTEN AMENDMENT	Text: JAPANESE INTERMEDIATE CODE: A523 Effective date: 20140825
JP2014503715 T2	20140826	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	Effective date: 20140825 Text: JAPANESE INTERMEDIATE CODE: A621
JP2014503715 T2	20150611		A977	REPORT ON RETRIEVAL	Effective date: 20150611 Text: JAPANESE INTERMEDIATE CODE: A971007
JP2014503715 T2	20150624	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Text: JAPANESE INTERMEDIATE CODE: A131 Effective date: 20150623
JP2014503715 T2	20150917		A601	WRITTEN REQUEST FOR EXTENSION OF TIME	Effective date: 20150917 Text: JAPANESE INTERMEDIATE CODE: A601
JP2014503715 T2	20160309	LSRV	-A02	DECISION OF REFUSAL	Effective date: 20160308 Text: JAPANESE INTERMEDIATE CODE: A02
SG190687 A1	20130731	LSPB	+	published / reissued	
US2012152437 AA	20120621	LSPB	+	published / reissued	
US2013302557 AA	20130423	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:CISNEROS, ROBERT;REEL/FRAME:030264/0130 Owner: AMCOL INTERNATIONAL CORPORATION, ILLINOIS Effective date: 20120109 PartyType: owner
US2013302557 AA	20131114	LSPB	+	published / reissued	
US2013302557 AA	20140515	LSAS	AS	ASSIGNMENT	Owner: JPMORGAN CHASE BANK, N.A., AS ADMINISTRATIVE AGENT PartyType: owner Effective date: 20140509 OldParty: SECURITY INTEREST;ASSIGNOR:AMCOL INTERNATIONAL CORPORATION;REEL/FRAME:032918/0776
US2013302557 AA	20150105	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
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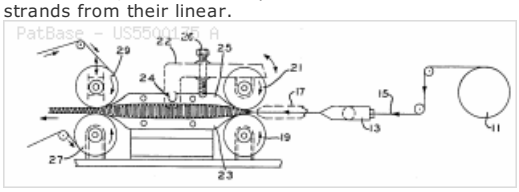
				STATUS: APPLICATION DISCONTINUATION	TO AN OFFICE ACTION
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US8454773 BB	20130515	LSGT	PAT1	Patented Case	
US8454773 BB	20130604	LSGT	+	granted / extensions (spc, cpc, pte)	
US8454773 BB	20140515	LSAS	AS	ASSIGNMENT	Effective date: 20140509 Owner: JPMORGAN CHASE BANK, N.A., AS ADMINISTRATIVE AGENT OldParty: SECURITY INTEREST;ASSIGNOR:AMCOL INTERNATIONAL CORPORATION;REEL/FRAME:032918/0776 PartyType: owner
US8454773 BB	20170113		REMI	MAINTENANCE FEE REMINDER MAILED	
US8454773 BB	20170604	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US8454773 BB	20170704	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US8454773 BB	20170704	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US8454773 BB	20170725	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20170604
US8454773 BB	20311108	PEXP		Calculated Patent Term Expiry	
WO12064698 A2	20120518	LSPB	+	published / reissued	
WO12064698 A2	20120704		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Kind code of Ref document: A2 Ref document number: 11782520 Country of Ref document: EP
WO12064698 A3	20130328		DPE1	REQUEST FOR PRELIMINARY EXAMINATION FILED AFTER EXPIRATION OF 19TH MONTH FROM PRIORITY DATE (PCT APPLICATION FILED FROM 20040101)	
WO12064698 A3	20130502	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Date of Ref document: 20111108 Kind code of Ref document: A Ref document number: 2011326113 Country of Ref document: AU
WO12064698 A3	20130506	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 2817075 Country of Ref document: CA
WO12064698 A3	20130507	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 2013537926 Country of Ref document: JP
WO12064698 A3	20130508	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO12064698 A3	20130603		+REEP	REQUEST FOR ENTRY INTO THE EUROPEAN PHASE	Ref document number: 2011782520 Country of Ref document: EP
WO12064698 A3	20130603	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2011782520 Country of Ref document: EP
WO12064698 A3	20160223		REG	REFERENCE TO NATIONAL CODE	Ref country code: BR Ref document number: 112013011465 Ref legal event code: B01A Country of Ref document: BR
WO12064698 A3	20160809	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Effective date: 20130508 Kind code of Ref document: A2 Ref document number: 112013011465 Country of Ref document: BR

52) Family number: 12654870 (US5500175 A)

Title: PROCESS OF PRODUCING HEAT-SOFTENABLE, HOPPER-FEEDABLE PLASTIC PELLETS CONTAINING FOLDED REINFORCING FIBERS

Abstract: Process and product for **manufacturing** continuous fiber reinforced sheets and shapes. A pressurized extrusion process consisting of a paired and edge enclosing doctor blades that remove **feed** material from a pair of pinch rolls and contain such in an optimally heated environment and which provides suitable hot dies and enables extrusion of continuous reinforcements, cores or threads to be contained in the extrudite. Hopper feedable plastic pellets containing reinforcing fibers which are longer than the largest pellet dimension are disclosed. The fibers in an elongated web of fiber reinforced plastic are caused to be wrinkled or folded prior to cutting the web into pellets. One form of apparatus includes a set of **conveyor** rollers for moving the web, with later rollers moving more slowly that the input rollers, in conjunction with a crowding doctor blade which forces the web with a creping action from the input rollers. Also fabrication of a continuous web of continuous fiber reinforced plastic material includes supplying a continuous substantially linear collection of fiber strands at a first velocity and saturating or impregnating that linear collection of strands with a plastic. The linear strands may be coated by passing the strands through a heated plastic **extruding** crosshead die. Thereafter, motion of the plastic coated linear strands is impeded so as to increase the cross-sectional area and deform the strands from their linear.

Classifications:
International (IPC 8-9): B29B9/02 B29B9/12 B29B9/14 B29C53/00 B29C53/22 B29C70/04 B29C70/50
International (IPC 1-7): B29C53/02 B32B15/00 D02G3/00
CPC: B29B9/02 B29B9/14 B29C53/22 B29C70/50 B29K2105/06 Y10T428/2927 Y10T428/2933 Y10T428/2938 Y10T428/2964
US: 264/151 264/171.23 264/172.12 264/210.2 264/282 428/372 428/375 428/378 428/392



Family:

Publication number	Publication date	Application number	Application date
US5500175 A	19960319	US19940333504	19941102
US6143410 A	20001107	US19960596769	19960205

Priority:
US19940333504 19941102 US19960596769 19960205

Probable Assignee: MATERIALS RESEARCH INNOVATIONS CORP
Assignee(s): (std): MATERIALS RES INNOVATIONS CORP ; MATERIALS RESEARCH INNOVATIONS
Assignee(s): BRADT REXFORD H ; MATERIALS RESEARCH INNOVATIONS CORP
Inventor(s): (std): BRADT REXFORD H

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
US5500175 A	19960307	LSGT	PAT1	Patented Case	
US5500175 A	19960307	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US5500175 A	19960319	LSGT	+	granted / extensions (spc, cpc, pte)	
US5500175 A	19971117	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:BRADT, REXFORD H.;REEL/FRAME:008811/0714 Owner: MATERIALS RESEARCH INNOVATIONS CORPORATION, INDIAN Effective date: 19970903 PartyType: owner
US5500175 A	19990827	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5500175 A	20030825	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US5500175 A	20070924		REMI	MAINTENANCE FEE REMINDER MAILED	
US5500175 A	20080318	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US5500175 A	20080318		+SULP	SURCHARGE FOR LATE PAYMENT	Year of fee payment: 11
US5500175 A	20141102	PEXP		Calculated Patent Term Expiry	
US6143410 A	19971117	LSAS	AS	ASSIGNMENT	Effective date: 19970903 Owner: MATERIALS RESEARCH INNOVATIONS CORPORATION, INDIAN PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:BRADT, REXFORD H.;REEL/FRAME:008811/0714
US6143410 A	20001107	LSGT	+	granted / extensions (spc, cpc, pte)	
US6143410 A	20040507	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4

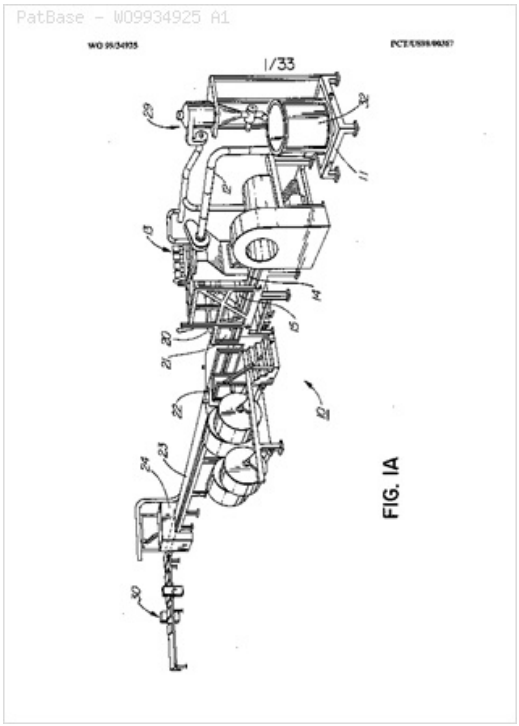
US6143410 A	20080429	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US6143410 A	20120618		REMI	MAINTENANCE FEE REMINDER MAILED	
US6143410 A	20121107	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6143410 A	20121203	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6143410 A	20121203	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6143410 A	20121225	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20121107
US6143410 A	20160205	PEXP		Calculated Patent Term Expiry	

53) Family number: 11389226 (WO9934925 A1)

Title: FIBER PANEL **MANUFACTURING** METHOD AND APPARATUS

Abstract: Apparatus and method for forming structural panel members from fiber crop material such as rice, straw and the like. The fiber crop material is bailed into circular or rectangular bails which bails are placed in a debailer/shredder (11). The fiber material is cut to a predetermined length and conveyed pneumatically to a rectangular slot between upper (111, 506) and lower platen members (110, 505). **Paper** is applied with glue to the upper and lower surfaces of the fiber and is folded up to cover the sides of the fiber. The glue is cured on a curing table (23) and the fiber is severed in a cutting section (24) into desired lengths.

Classifications:
International (IPC 8-9): B02C19/00 B27N1/00 B27N3/08 B27N3/12 B27N3/20 B27N3/28 B27N7/00 B30B7/00 B32B17/00
International (IPC 1-7): B02C19/12 B27N1/00 B27N3/12 B27N3/20 B27N3/28 B27N7/00 B30B7/00
CPC: B02C19/00 B27N1/00 B27N3/12 B27N3/20 B27N3/28 B27N7/00 B30B7/00



Family:

Publication number	Publication date	Application number	Application date
AU199866471 A1	19990726	AU19980066471	19980107
BRPI9813723 A	20020115	BR1998PI13723	19980107
CN1089040 C	20020814	CN19988013875	19980107
CN1299301 A	20010613	CN19988013875	19980107
EP1053057 A1	20001122	EP19980908432	19980107
EP1053057 A4	20010307	EP19980908432	19980107
JP2003517384 T2	20030527	JP20000527360T	19980107
KR100543369 B1	20060120	KR20007007506	19980107
KR20010033926 A	20010425	KR20007007506	19980107
MXPA00006709 A1	20020918	MX2000PA06709	19980107
WO9934925 A1	19990715	WO1998US00367	19980107

Priority:
WO1998US00367 19980107 CN19988013875 19980107

Probable Assignee: ENVIRON ENVIRONMENTAL PROT PAN

Assignee(s): (std): ENVIRO BOARD CORP ; ENVIRO ENVIRONMENTAL PROT PANE ; ENVIRON ENVIRONMENTAL PROT PAN ; HADDONFIELD MAN CO LTD ; HADDONFIELD MANAGEMENT CO LTD ; HALL LORNE D

Assignee(s): ENVIRO ENVIRONMENTAL PROTECTION PANEL MFG CORP ; ENVIRON ENVIRONMENTAL PROTECTION PANEL MFG CORP ; HADDONFIELD MANAGEMENT CO

Inventor(s): (std): HALL L D ; HALL LORNE D

Inventor(s): L D HALL ; LORNE D HALL

Agent(s): FISHER ADAMS KELLY; FISHER ADAMS KELLY CALLINANS; FISHER ADAMS KELLY PTY LTD; SPRUSON AND FERGUSON

Designated states: AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CU CZ DE DK EE ES FI FR GA GB GE GH GM GN GR GW HU ID IE IL IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT UA UG US UZ VN YU ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU199866471 A1	19990726	LSPB	+	published / reissued	
AU199866471 A1	20010322	LSLE	-MK1	APPLICATION LAPSED SECTION 142(2)(A) - NO REQUEST FOR EXAMINATION IN	

				RELEVANT PERIOD	
BRPI9813723 A	20020115	LSPB	+	published / reissued	
BRPI9813723 A	20050628	LSRV	-B11D	DISMISSAL ACC. ART. 38, PAR 2 OF IPL - FAILURE TO PAY FEE AFTER GRANT IN TIME	
BRPI9813723 A	20180327		B15K	OTHERS CONCERNING APPLICATIONS: ALTERATION OF CLASSIFICATION	ClassificationScheme: IPC ClassificationSymbol: B02C 19/00 (2006.01), B27N 1/00 (2006.0
CN1089040 C	20020814	LSGT	+	granted / extensions (spc, cpc, pte)	
CN1089040 C	20020814	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN1089040 C	20110323	LSLE	-C17	CESSATION OF PATENT RIGHT	
CN1089040 C	20180107	PEXP		Calculated Patent Term Expiry	
CN1299301 A	20010613	LSPB	+	published / reissued	
CN1299301 A	20010613	LSPB	+C06	PUBLICATION	
CN1299301 A	20010620		C10	ENTRY INTO SUBSTANTIVE EXAMINATION	
EP1053057 A1	20001122	LSPB	+	published / reissued	
EP1053057 A1	20001122	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20000807
EP1053057 A1	20001122		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
EP1053057 A4	20010307	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	Effective date: 20010119
EP1053057 A4	20010307		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A4 Country of Ref document: AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
EP1053057 A4	20010307		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	Text: 7B 02C 19/12 A, 7B 30B 7/00 B, 7B 27N 3/28 B, 7B 27N 7/00 B, 7B 27N 1/00 B
EP1053057 A4	20071114	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 20071017
EP1053057 A4	20081022	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	Effective date: 20080429
JP2003517384 T2	20030527	LSPB	+	published / reissued	
KR100543369 B1	20010420	LSAS	N231	NOTIFICATION OF CHANGE OF APPLICANT	
KR100543369 B1	20030106	LSES	A201	REQUEST FOR EXAMINATION	
KR100543369 B1	20041129	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR100543369 B1	20051019	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR100543369 B1	20060109	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR100543369 B1	20060120	LSGT	+	granted / extensions (spc, cpc, pte)	
KR100543369 B1	20090108	LSFE	FPAY	ANNUAL FEE PAYMENT	Year of fee payment: 4 Payment date: 20090109
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KR100543369 B1	20200706	PEXP		Calculated Patent Term Expiry	
KR20010033926 A	20010425	LSPB	+	published / reissued	
MXPA00006709 A1	20020918	LSPB	+	published / reissued	
WO9934925 A1	19980107	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 98813875.1 Country of Ref document: CN
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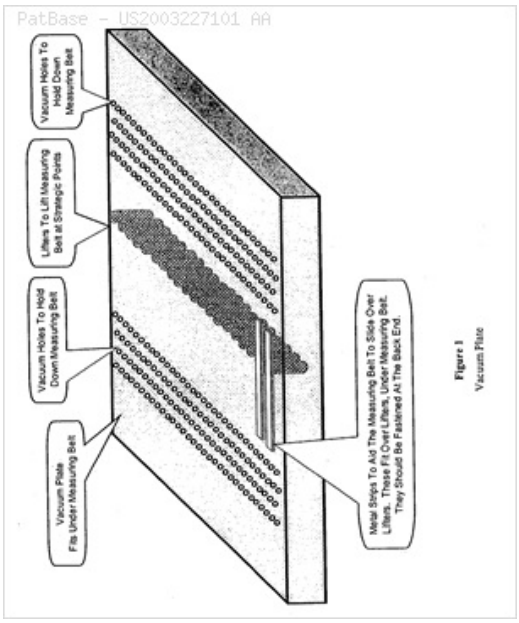
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WO9934925 A1	20000706	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 1020007007506 Country of Ref document: KR
WO9934925 A1	20000707	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: PA/a/2000/006709 Country of Ref document: MX
WO9934925 A1	20000807	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 1998908432 Country of Ref document: EP
WO9934925 A1	20001109	LSWD	REG	REFERENCE TO NATIONAL CODE	Ref legal event code: 8642 Ref country code: DE
WO9934925 A1	20001122	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: 1998908432 Country of Ref document: EP
WO9934925 A1	20010425	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: 1020007007506 Country of Ref document: KR
WO9934925 A1	20010707	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: CA
WO9934925 A1	20051019	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	Ref document number: 1020007007506 Country of Ref document: KR

54) Family number: 29771780 (US2003227101 AA)

Title: **MANUFACTURING** METHODS FOR PRODUCING PARTICLEBOARD, OSB, MDF AND SIMILAR BOARD PRODUCTS

Abstract: Methods and apparatus for **manufacturing** particleboard (PB), medium density fiberboard (MDF), oriented strand board (OSB) and board products and the like employ density control for producing a board product having a desired configuration.

Classifications:
International (IPC 8-9): B27N3/08 B27N3/14 B29C43/58 F26B17/00 F26B17/08
International (IPC 1-7): B27N3/00
CPC: B27N3/14 B27N3/143
US: 264/109 264/40.1 34/589 34/611 34/640 264/109S 264/40.100P



Family:

Publication number	Publication date	Application number	Application date
US2003227101 AA	20031211	US20030406826	20030404
US2006049537 AA	20060309	US20050096211	20050330
US7647708 BB	20100119	US20050096211	20050330

Priority:

US20020370186P 20020404 US20020370187P 20020404 US20020378763P 20020507
US20030406826 20030404 US20050096211 20050330

Probable Assignee: CHRISTOFFERSEN WILLIAM E

Assignee(s): (std): CHRISTOFFERSEN WILLIAM ; CHRISTOFFERSEN WILLIAM E

Inventor(s): (std): CHRISTOFFERSEN WILLIAM ; CHRISTOFFERSEN WILLIAM E

Inventor(s): WILLIAM E CHRISTOFFERSEN

Agent(s): DELLETT AND WALTERS; PATENTTMUS

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
US2003227101 AA	20031211	LSPB	+	published / reissued	
US2003227101 AA	20050516	LSWD	ABD2	Abandoned -- Failure to Pay Issue Fee	
US2003227101 AA	20050516		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO PAY ISSUE FEE
US2006049537 AA	20060309	LSPB	+	published / reissued	
US7647708 BB	20091230	LSGT	PAT1	Patented Case	
US7647708 BB	20100119	LSGT	+	granted / extensions (spc, cpc, pte)	
US7647708 BB	20130715	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US7647708 BB	20170904	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.)
US7647708 BB	20180219	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	Text: PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.)
US7647708 BB	20180219	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	

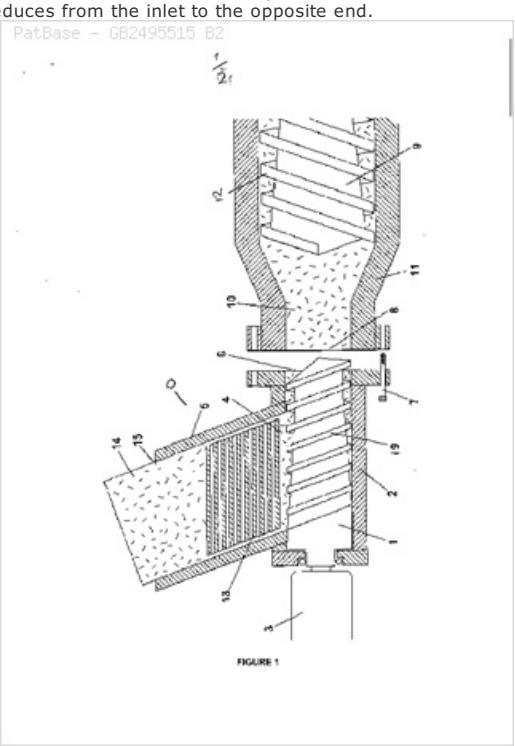
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US7647708 BB	20180313	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20180119
US7647708 BB	20250326	PEXP		Calculated Patent Term Expiry (PTA 722 days)	

55) Family number: 50143276 (GB201117593 A0)

Title: SIDE-MOUNTED EXTRUSION DIE

Abstract: A die apparatus 0 for **extruding** thermoplastic or thermoset products comprising a barrel 2 with an inlet 6 for receiving **extrudate** from an extrusion machine 8, a helical conveying **screw** 1 enclosed within the barrel to laterally displace the **extrudate** 10 and an aperture 4 in the sidewall of the barrel. The aperture in the sidewall of the barrel provides an opening to a side mounted die chamber 5 substantially orientated on the barrel at the helix angle of the conveying **screw**, such that the **extrudate** is **extruded** from the side of the barrel at said helix angle. This orientation reduces the shear stress imparted upon the **extrudate**, allowing wider profile extrusions to be undertaken. Preferably. The volume of the passage between the barrel and the conveying **screw** continuously reduces from the inlet to the opposite end.

Classifications:
International (IPC 8-9): B29C47/12 B29C47/14 B29C47/66 B29C48/30 B29C48/305
CPC: B29C2035/0211 B29C2948/92704 B29C35/0277 B29C47/12 B29C48/022 B29C48/07 B29C48/08 B29C48/2566 B29C48/30 B29C48/305 B29C48/38 B29C48/455 B29C48/53 B29C48/68 B29C48/92



Family:

Publication number	Publication date	Application number	Application date
GB201117593 A0	20111123	GB20110017593	20111011
GB2495515 A1	20130417	GB20110017593	20111011
GB2495515 B2	20160803	GB20110017593	20111011

Priority:
GB20110017593 20111011

Probable Assignee: ANTHONY CRABBE

Assignee(s): (std): ANTHONY CRABBE ; CRABBE ANTHONY ; JASON MOLYNEUX ; MOLYNEUX JASON ; MOLYNEUX PAMELA ; PAMELA MOLYNEUX

Inventor(s): (std): ANTHONY CRABBE ; CRABBE ANTHONY ; JASON MOLYNEUX ; MOLYNEUX JASON ; MOLYNEUX PAMELA ; PAMELA MOLYNEUX

Legal status (INPADOC)

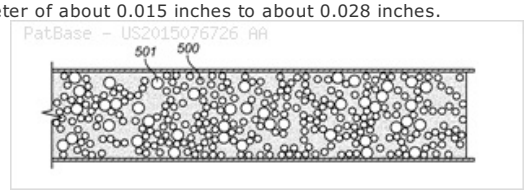
View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
GB2495515 A1	20130417	LSPB	+	published / reissued	
GB2495515 B2	20160803	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2495515 B2	20311011	PEXP		Calculated Patent Term Expiry	

56) Family number: 58728549 (US2015076726 AA)

Title: PROCESS FOR EXPANDING SMALL DIAMETER POLYSTYRENE BEADS FOR USE IN CEMENTITIOUS BOARD

Abstract: A process for expanding small diameter polystyrene beads is disclosed. The process comprises applying a steam pressure of about three to seven pounds per square inch at a temperature of about two hundred twenty degrees Fahrenheit to two hundred forty degrees Fahrenheit to a plurality of expandable polystyrene beads until each of the plurality of expandable polystyrene beads has expanded to a diameter of about 0.030 inches to 0.125 inches, wherein each of the plurality of expandable polystyrene beads has an unexpanded diameter of about 0.015 inches to about 0.028 inches.



Classifications:
International (IPC 8-9): B23B3/10 B28B1/52 B28B23/00 B29C39/42 B29C44/02 B32B3/10 E04C2/04 E04C2/06 E04C2/28 E04C5/04 E04C5/07 E04F13/08
CPC: C04B2111/00612 C04B28/02 E04C2/049 E04C2/06 E04C2/28 E04F13/0885 Y10T428/24777 Y10T442/10 B28B1/525 B28B1/526 B28B23/0006 B28B23/0062 B28B23/0087 B29C44/02 B29C44/3461 B29C44/348 C08J2203/22 C08J2325/04 C08J2325/06 C08J9/16 C08J9/22 C08J9/224 Y10S264/09 B29C39/42 E04C5/04 E04C5/07
US: 1/1 264/51 264/72 425/456 428/192 442/1 521/55

Family:

Publication number	Publication date	Application number	Application date
BR112016005599 A2	20170801	BR20161105599	20140916
BR112016005599 A8	20200218	BR20161105599	20140916
CA2924051 AA	20160310	CA20142924051	20140916
CL2016000615 A1	20161223	CL20160000615	20160315
CO16047183 A2	20160610	CO20160047183	20160224
CR20160124 A	20160428	CR20160000124	20160310
MX2016002801 A1	20160526	MX20160002801	20140916
MX359620 B	20181004	MX20160002801	20140916
MX2018007873 A1	20190729	MX20180007873	20160303
NI201600030 A	20200930	NI20160000030	20160226
PE09142016 A1	20160916	PE20160000381	20140916
PE20160914 A1	20160916	PE20160000381	20140916
SV2016005170 A	20161110	SV20160005170	20160315
US2015079356 AA	20150319	US20130028009	20130916
US9499980 BB	20161122	US20130028009	20130916
US2015076728 AA	20150319	US20130028055	20130916
US9914245 BB	20180313	US20130028055	20130916
US2015076726 AA	20150319	US20130028089	20130916
US10676927 BB	20200609	US20160294959	20161017
US2017030078 AA	20170202	US20160294959	20161017
WO15039064 A1	20150319	WO2014US55745	20140916

Priority:

US20130028055 20130916 US20130028089 20130916 US20130028009 20130916
WO2014US55745 20140916 US20160294959 20161017

Probable Assignee: NATIONAL GYPSUM PROPERTIES LLC

Assignee(s): (std): MATHIEU MARIE ANDREE ; NAT GYPSUM CO ; NAT GYPSUM PROPERIES LLC ; NAT GYPSUM PROPERTIES LLC

Assignee(s): BANK OF AMERICA NA COLLATERAL AGENT AS ; BRASSARD JEAN FRANCOIS ; DUBE BENOIT ; GUERTIN PATRICK ; L HEUREUX JACQUES ; NATIONAL GYPSUM CO ; NATIONAL GYPSUM PROPERIES LLC ; NATIONAL GYPSUM PROPERTIES LLC ; POTVIN FREDERIC

Inventor(s): (std): BENOIT DUBE ; BRASSARD JEAN FRANCOIS ; DUBE BENOIT ; FREDERIC POTVIN ; GUERTIN PATRICK ; HEUREUX JACQUES L ; JACQUES L HEUREUX ; JEAN FRANCOIS BRASSARD ; L HEUREUX JACQUES ; MARIE ANDREE MATHIEU ; MATHIEU MARIE ANDREE ; PATRICK GUERTIN ; POTVIN FREDERIC

Inventor(s): L U0027HEUREUX JACQUES

Agent(s): BROUILLETTE AND ASSOCIES PARTNERS; DORITY AND MANNING PA; ICE MILLER LLP; JOSE ANDRES RINCON USCATEGUI; MERKER NICHOLAS R ET AL; PORZIO RIOS Y ASOCIADOS

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
BR112016005599 A2	20170801	LSPB	+	published / reissued	
BR112016005599 A8	20200428		B06U	PRELIMINARY REQUIREMENT: REQUESTS WITH SEARCHES PERFORMED BY OTHER PATENT OFFICES: SUSPENSION OF THE PATENT APPLICATION PROCEDURE	

BR112016005599 A8	20200915	LSRV	-B11B	DISMISSAL ACC. ART. 36, PAR 1 OF IPL - NO REPLY WITHIN 90 DAYS TO FULLFIL THE NECESSARY REQUIREMENTS	
CA2924051 AA	20160310	LSPB	+	published / reissued	
CA2924051 AA	20190719	LSES	+EEER	EXAMINATION REQUEST	Effective date: 20190711
CL2016000615 A1	20161223	LSPB	+	published / reissued	
CO16047183 A2	20160610	LSPB	+	published / reissued	
CR20160124 A	20160428	LSPB	+	published / reissued	
MX2016002801 A1	20160526	LSPB	+	published / reissued	
MX2018007873 A1	20190729	LSPB	+	published / reissued	
MX359620 B	20181004	LSGT	+	granted / extensions (spc, cpc, pte)	
MX359620 B	20181004	LSGT	+FG	GRANT OR REGISTRATION	
MX359620 B	20340916	PEXP		Calculated Patent Term Expiry	
NI201600030 A	20200930	LSGT	+	granted / extensions (spc, cpc, pte)	
NI201600030 A	20360226	PEXP		Calculated Patent Term Expiry	
PE09142016 A1	20160916	LSPB	+	published / reissued	
PE20160914 A1	20160916	LSPB	+	published / reissued	
SV2016005170 A	20161110	LSPB	+	published / reissued	
US10676927 BB	20200520	LSGT	PAT1	Patented Case	
US10676927 BB	20200609	LSGT	+	granted / extensions (spc, cpc, pte)	
US10676927 BB	20340126	PEXP		Calculated Patent Term Expiry (PTA 132 days and a terminal disclaimer has been filed)	
US2015076726 AA	20131011	LSAS	AS	ASSIGNMENT	Effective date: 20131011 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:MATHIEU, MARIE-ANDR? E;REEL/FRAME:031389/0739 Owner: NATIONAL GYPSUM PROPERTIES, LLC, NORTH CAROLINA PartyType: owner
US2015076726 AA	20140929		RFE1	Docketed New Case - Ready for Examination	
US2015076726 AA	20150319	LSPB	+	published / reissued	
US2015076726 AA	20151216	LSES	NFA1	Non Final Action Mailed	
US2015076726 AA	20161028	LSAS	AS	ASSIGNMENT	Effective date: 20161028 OldParty: SECURITY INTEREST;ASSIGNOR:NATIONAL GYPSUM PROPERTIES, LLC;REEL/FRAME:040159/0088 Owner: BANK OF AMERICA, N.A., AS COLLATERAL AGENT, CALIFO PartyType: owner
US2015076726 AA	20161028	LSAS	AS	ASSIGNMENT	Effective date: 20161028 OldParty: SECURITY INTEREST;ASSIGNOR:NATIONAL GYPSUM PROPERTIES, LLC;REEL/FRAME:040159/0088 Owner: BANK OF AMERICA, N.A., AS COLLATERAL AGENT, CALIFORNIA PartyType: owner
US2015076726 AA	20170504		RSP4	Response to Non-Final Office Action	

				Entered and Forwarded to Examiner	
US2015076726 AA	20170719		FRM1	Final Rejection Mailed	
US2015076726 AA	20171028		RFE1	Docketed New Case - Ready for Examination	
US2015076726 AA	20171114	LSES	NFA2	Non Final Action Counted, Not Yet Mailed	
US2015076726 AA	20171115	LSES	NFA1	Non Final Action Mailed	
US2015076726 AA	20180625	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2015076726 AA	20180625		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2015076728 AA	20140929		RFE1	Docketed New Case - Ready for Examination	
US2015076728 AA	20150319	LSPB	+	published / reissued	
US2015076728 AA	20161028	LSAS	AS	ASSIGNMENT	Effective date: 20161028 OldParty: SECURITY INTEREST;ASSIGNOR:NATIONAL GYPSUM PROPERTIES, LLC;REEL/FRAME:040159/0088 Owner: BANK OF AMERICA, N.A., AS COLLATERAL AGENT, CALIFO PartyType: owner
US2015076728 AA	20161028	LSAS	AS	ASSIGNMENT	Effective date: 20161028 OldParty: SECURITY INTEREST;ASSIGNOR:NATIONAL GYPSUM PROPERTIES, LLC;REEL/FRAME:040159/0088 Owner: BANK OF AMERICA, N.A., AS COLLATERAL AGENT, CALIFORNIA PartyType: owner
US2015076728 AA	20170418	LSES	NFA1	Non Final Action Mailed	
US2015076728 AA	20171031	LSES	NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2015076728 AA	20171110	LSFE	AWA4	Awaiting TC Resp., Issue Fee Not Paid	
US2015076728 AA	20171114	LSES	NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2015076728 AA	20180221	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2015079356 AA	20150319	LSPB	+	published / reissued	
US2015079356 AA	20161028	LSAS	AS	ASSIGNMENT	Effective date: 20161028 OldParty: SECURITY INTEREST;ASSIGNOR:NATIONAL GYPSUM PROPERTIES, LLC;REEL/FRAME:040159/0088 Owner: BANK OF AMERICA, N.A., AS COLLATERAL AGENT, CALIFO PartyType: owner
US2015079356 AA	20161028	LSAS	AS	ASSIGNMENT	Effective date: 20161028 OldParty: SECURITY INTEREST;ASSIGNOR:NATIONAL GYPSUM PROPERTIES, LLC;REEL/FRAME:040159/0088 Owner: BANK OF AMERICA, N.A., AS COLLATERAL AGENT, CALIFORNIA PartyType: owner
US2015079356 AA	20161102	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2017030078 AA	20170201		RFE1	Docketed New Case - Ready for Examination	
US2017030078 AA	20170202	LSPB	+	published / reissued	

US2017030078 AA	20170303	LSAS	AS	ASSIGNMENT	Effective date: 20131011 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:MATHIEU, MARIE-ANDREE;REEL/FRAME:041451/0253 Owner: NATIONAL GYPSUM PROPERTIES, LLC, NORTH CAROLINA PartyType: owner
US2017030078 AA	20180705	LSES	NFA2	Non Final Action Counted, Not Yet Mailed	
US2017030078 AA	20180706	LSES	NFA1	Non Final Action Mailed	
US2017030078 AA	20181221		RSP4	Response to Non-Final Office Action Entered and Forwarded to Examiner	
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US2017030078 AA	20190403		FRM1	Final Rejection Mailed	
US2017030078 AA	20190403		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: FINAL REJECTION MAILED
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US2017030078 AA	20190903	LSES	NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017030078 AA	20190903		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: NOTICE OF ALLOWANCE MAILED -- APPLICATION RECEIVED IN OFFICE OF PUBLICATIONS
US2017030078 AA	20191206		RFE1	Docketed New Case - Ready for Examination	
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US2017030078 AA	20200429	LSFE	PPV1	Publications -- Issue Fee Payment Verified	
US9499980 BB	20131011	LSAS	AS	ASSIGNMENT	Effective date: 20131011 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:MATHIEU, MARIE-ANDR? E;REEL/FRAME:031389/0410 Owner: NATIONAL GYPSUM PROPERTIES, LLC, NORTH CAROLINA PartyType: owner
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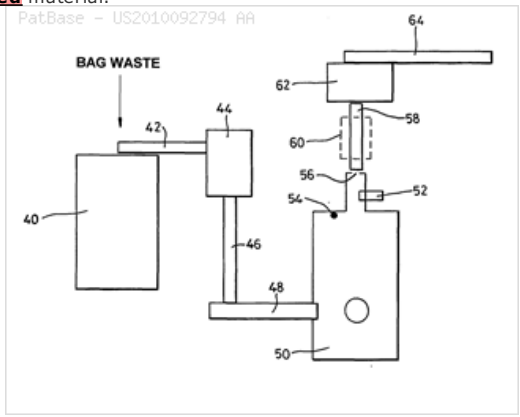
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US9499980 BB	20170214	LSRE	CC	CERTIFICATE OF CORRECTION	
US9499980 BB	20200415	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	Year of fee payment: 4
US9499980 BB	20340426	PEXP		Calculated Patent Term Expiry (PTA 222 days)	
US9914245 BB	20131011	LSAS	AS	ASSIGNMENT	Effective date: 20131011 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:MATHIEU, MARIE-ANDR?E;REEL/FRAME:031389/0497 Owner: NATIONAL GYPSUM PROPERTIES, LLC, NORTH CAROLINA PartyType: owner
US9914245 BB	20180221	LSGT	PAT1	Patented Case	
US9914245 BB	20180313	LSGT	+	granted / extensions (spc, cpc, pte)	
US9914245 BB	20350606	PEXP		Calculated Patent Term Expiry (PTA 628 days)	
WO15039064 A1	20150319	LSPB	+	published / reissued	
WO15039064 A1	20150429		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Kind code of Ref document: A1 Ref document number: 14844497 Country of Ref document: EP
WO15039064 A1	20160224	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 16047183 Country of Ref document: CO
WO15039064 A1	20160303	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: MX/A/2016/002801 Country of Ref document: MX
WO15039064 A1	20160310	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 2924051 Country of Ref document: CA
WO15039064 A1	20160310	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: CR2016-000124 Country of Ref document: CR
WO15039064 A1	20160315	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 000381-2016 Country of Ref document: PE
WO15039064 A1	20160316	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO15039064 A1	20160329		REG	REFERENCE TO NATIONAL CODE	Ref country code: BR Ref document number: 112016005599 Ref legal event code: B01A Country of Ref document: BR
WO15039064 A1	20161012	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	Kind code of Ref document: A1 Ref document number: 14844497 Country of Ref document: EP
WO15039064 A1	20170801	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Effective date: 20160315 Kind code of Ref document: A2 Ref document number: 112016005599 Country of Ref document: BR
WO15039064 A1	20180625	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: MX/A/2018/007873 Country of Ref document: MX

57) Family number: 31801374 (US2010092794 AA)

Title: TREATMENT AND RECOVERY OF WASTE

Abstract: A method of processing waste containing an amount of thermoplastic material and an amount of non-thermoplastic material as constituent materials to produce an output material capable of being used as an ingredient or component in a subsequent **manufacturing** process, said method comprising the steps of: increasing the temperature of the waste; supplying said waste to a densifier to cause densification of the waste and heat transfer contact between the constituent materials such that the thermoplastic materials soften to at least partially surround said non-thermoplastic materials; and **extruding** the densified waste to produce an **extruded** material.

Classifications:
International (IPC 8-9): A61L11/00 A61L2/04 A61L2/06 A61L2/20 B09B3/00 B29B17/00 B29C47/78 C08J11/00 C08J11/04 C08J11/06 C08K11/00
International (IPC 1-7): B09B3/00 C08J11/04 C08K11/00
CPC: B09B3/0025 B09B3/0075 B29B17/0026 B29B17/0042 B29L2031/753 C08J11/04 C08J11/06 C08K11/005 Y02W30/62 B29C48/022 B29C48/04 B29C48/277 B29C48/395 B29C48/404 B29C48/525 B29C48/793 B29C48/832 B29C48/91 B29C48/919 B29K2105/26 Y02P70/10
US: 264/176.1 264/176.100S 422/27 422/27S 428/542.8 428/542.800P



Family:

Publication number	Publication date	Application number	Application date
AT425856 E	20090415	AT20060709593T	20060131
AU2006208879 AA	20060803	AU20060208879	20060131
DE602006005790 D1	20090430	DE200660005790T	20060131
EP1846208 A1	20071024	EP20060709593	20060131
EP1846208 B1	20090318	EP20060709593	20060131
GB200501864 A0	20050309	GB20050001864	20050131
GB200601915 A0	20060308	GB20060001915	20060131
GB2422609 A1	20060802	GB20060001915	20060131
GB2422609 A8	20060824	GB20060001915	20060131
GB2422609 B2	20081008	GB20060001915	20060131
JP2008528270 T2	20080731	JP20070552725T	20060131
US2010092794 AA	20100415	US20060815138	20060131
WO06079842 A1	20060803	WO2006GB00311	20060131

Priority:
GB20050001864 20050131 GB20050501864 20050131 US20050649784P 20050203
WO2006GB00311 20060131

Probable Assignee: ENVIRONMENTAL POLYMER TECHNOLOGIES LTD

Assignee(s): (std): 3DM ENVIRONMENTAL LTD ; AYLMORE PETER ROGER ; ENVIRONMENTAL POLYMER TECH LTD ; ENVIRONMENTAL POLYMER TECHNOLO ; MEDICAL WASTE SOLUTIONS LTD ; TREAT AND RECOVERY OF WASTE

Assignee(s): 3DM ENVIRONMENTAL LIMITED ; ENVIRONMENTAL POLYMER TECHNOLOGIES LIMITED ; ENVIRONMENTAL POLYMER TECHNOLOGIES LTD ; MEDICAL WASTE SOLUTIONS LIMITED ; TREATMENT AND RECOVERY OF WASTE

Inventor(s): (std): AYLMORE PETER ROGER

Inventor(s): PETER ROGER AVIMORE ; PETER ROGER AYLMORE

Agent(s): KING AND SCHICKLI PLLC; LAMBERT IAN ROBERT ET AL; PIZZEYS PATENT AND TRADE MARK ATTORNEYS; PIZZEYS PATENT AND TRADE MARK ATTORNEYS PTY LTD

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AT425856 E	20090415	LSGT	+	granted / extensions (spc, cpc, pte)	
AT425856 E	20090915	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT425856 E	20260131	PEXP		Calculated Patent Term Expiry	
AU2006208879 AA	20060803	LSPB	+	published / reissued	

AU2006208879 AA	20071011	LSAS	PC1	ASSIGNMENT BEFORE GRANT (SECT. 113)	OldParty: FORMER APPLICANT(S): ENVIRONMENTAL POLYMER TECHNOLOGIES LIMITED Owner: MEDICAL WASTE SOLUTIONS PartyType: owner
AU2006208879 AA	20110825	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
DE602006005790 D1	20100408	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE602006005790 D1	20101118	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
EP1846208 A1	20071024	LSPB	+	published / reissued	
EP1846208 A1	20071024	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20070817
EP1846208 A1	20071024		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR
EP1846208 A1	20080430	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 20080401
EP1846208 A1	20080507		DAX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT (DELETED)	
EP1846208 A1	20080910	LSRE	RTI1	TITLE (CORRECTION)	Text: METHOD FOR TREATMENT AND RECOVERY OF WASTE
EP1846208 A1	20090211		+RBV	DESIGNATED CONTRACTING STATES (CORRECTED)	Country of Ref document: AT BE BG CH CY CZ DE DK EE ES FI FR GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR
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EP1846208 B1	20090429	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref country code: IE Ref legal event code: FG4D
EP1846208 B1	20090430		REF	CORRESPONDS TO:	Date of Ref document: 20090430 Kind code of Ref document: P Ref document number: 602006005790 Country of Ref document: DE
EP1846208 B1	20090731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090318 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: FI
EP1846208 B1	20090731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090318 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: LT
EP1846208 B1	20090731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20090318 Country of Ref document: NL
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EP1846208 B1	20090831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20090618 Country of Ref document: SE
EP1846208 B1	20090901	LSLE	-NLV1	NL: LAPSED OR ANNULLED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT	Ref country code: EP
EP1846208 B1	20090930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20090318 Country of Ref document: BE
EP1846208 B1	20091030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090318 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: CZ
EP1846208 B1	20091030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20090318 Country of Ref document: EE
EP1846208 B1	20091030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20090629 Country of Ref document: ES
EP1846208 B1	20091030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20090827 Country of Ref document: PT
EP1846208 B1	20091130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090718 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: IS
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EP1846208 B1	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20090618 Country of Ref document: BG
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EP1846208 B1	20100831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20100131 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: MC
EP1846208 B1	20100831	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: PL
EP1846208 B1	20101022	LSLE	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20100930 Ref legal event code: ST Ref country code: FR
EP1846208 B1	20101029	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20100131 Country of Ref document: CH
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EP1846208 B1	20101029	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20100131 Country of Ref document: LI
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EP1846208 B1	20101130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20100803 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: DE
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EP1846208 B1	20120928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20100131 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: LU
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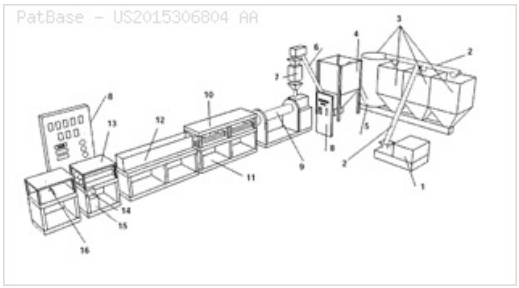
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GB2422609 A1	20060802	LSPB	+	published / reissued	
GB2422609 B2	20081008	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2422609 B2	20081022		732E	AMENDMENTS TO THE REGISTER IN RESPECT OF CHANGES OF NAME OR CHANGES AFFECTING RIGHTS (SECT. 32/1977)	
GB2422609 B2	20110928	LSLE	-PCNP	PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	Effective date: 20110131
GB2422609 B2	20260131	PEXP		Calculated Patent Term Expiry	
JP2008528270 T2	20080731	LSPB	+	published / reissued	
JP2008528270 T2	20081216	LSRE	A521	WRITTEN AMENDMENT	Text: JAPANESE INTERMEDIATE CODE: A523 Effective date: 20081215
JP2008528270 T2	20081216	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	Text: JAPANESE INTERMEDIATE CODE: A621 Effective date: 20081215
JP2008528270 T2	20100708		A977	REPORT ON RETRIEVAL	Effective date: 20100708 Text: JAPANESE INTERMEDIATE CODE: A971007
JP2008528270 T2	20100720	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Text: JAPANESE INTERMEDIATE CODE: A131 Effective date: 20100716
JP2008528270 T2	20101210	LSRV	-A02	DECISION OF REFUSAL	Text: JAPANESE INTERMEDIATE CODE: A02 Effective date: 20101209
US2010092794 AA	20070907	LSAS	AS	ASSIGNMENT	Effective date: 20070807 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:AYLMORE, PETER ROGER;REEL/FRAME:019798/0845 Owner: ENVIRONMENTAL POLYMER TECHNOLOGIES LIMITED,UNITED PartyType: owner
US2010092794 AA	20070911	LSAS	AS	ASSIGNMENT	Owner: MEDICAL WASTE SOLUTIONS LIMITED,UNITED KINGDOM Effective date: 20070803 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ENVIRONMENTAL POLYMER TECHNOLOGIES LIMITED;REEL/FRAME:019810/0842 PartyType: owner
US2010092794 AA	20100415	LSPB	+	published / reissued	
US2010092794 AA	20120224	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
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WO06079842 A1	20060803	LSPB	+	published / reissued	
WO06079842 A1	20060913		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	
WO06079842 A1	20070730	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2007552725 Country of Ref document: JP
WO06079842 A1	20070801	LSNE	NENP	NON-ENTRY INTO	Ref country code: DE

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WO06079842 A1	20070817	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2006709593 Country of Ref document: EP
WO06079842 A1	20070822	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 560846 Country of Ref document: NZ
WO06079842 A1	20070827	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2006208879 Country of Ref document: AU
WO06079842 A1	20070920	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Date of Ref document: 20060131 Kind code of Ref document: A Ref document number: 2006208879 Country of Ref document: AU
WO06079842 A1	20070920	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: 2006208879 Country of Ref document: AU
WO06079842 A1	20071024	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: 2006709593 Country of Ref document: EP
WO06079842 A1	20091224	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 11815138 Country of Ref document: US

58) Family number: 60649344 (US2015306804 AA)

Title: SYSTEM AND METHOD FOR PRODUCING PLASTIC PRODUCTS FROM RECYCLED MIXED PLASTIC WASTE AND PLASTIC PRODUCT

Abstract: System and method for producing plastic products from a recycled plastic mix of unidentified, unclean and unsorted mixed plastic waste comprises the thermal and mechanical processing of the recycled plastic waste using continuous extrusion foaming, two-phase cooling, continuous metering of the pulling strength and automatic adjustment of the pulling speed and extrusion speed.



Classifications:
International (IPC 8-9): B29B13/00 B29B13/04 B29B17/00 B29B7/00 B29B7/88 B29C31/00 B29C31/06 B29C47/00 B29C47/06 B29C47/10 B29C47/34 B29C47/38 B29C47/60 B29C47/82 B29C47/86 B29C47/88 B29C47/90 B29C47/92 B29C48/00 B29C48/06 B29C48/09 B29C48/21 B29C48/355 B29C48/395 B29C48/505 B29C48/625 B29C48/86 B29C48/87 B29C48/875 B29C48/88 B29C48/90 B29C48/92 B29K101/12 B29K105/00 B29K105/26 B29K23/00 C08J9/00
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US: 1/1 264/40.7 425/71 428/318.6

Family:

Publication number	Publication date	Application number	Application date
CY1119421 T1	20180307	CY20171101035T	20171004
CY1121126 T1	20191211	CY20191100053T	20190116
DE602014012748 D1	20170921	DE201460012748T	20140425
DE602014034479 D1	20181115	DE201460034479T	20140425
DK2937199 T3	20171120	DK20140166067T	20140425
DK3208063 T3	20190211	DK20170160899T	20140425
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PT2937199 T	20171114	PT20140166067T	20140425
PT3208063 T	20190129	PT20170160899T	20140425
SI2937199 T1	20180430	SI20140030471T	20140425
SI3208063 T1	20190430	SI20140031052T	20140425
TR201716143 T4	20171221	TR20170016143T	20140425
TR201900715 T4	20190221	TR20190000715T	20140425
US2015306804 AA	20151029	US20140299593	20140609
US9566736 BB	20170214	US20140299593	20140609
US10486352 BB	20191126	US20160377995	20161213
US2017087758 AA	20170330	US20160377995	20161213

Priority:
EP20140166067 20140425 EP20170160899 20140425 US20140299593 20140609 US20160377995 20161213

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Assignee(s): ROLAN INVESTMENT OU ; ROLAN INVESTMENT OUE
Inventor(s): (std): AARNE SAAREVAELI ; AIVO KAESNAR ; ANDRUS VALDMAA ; KAESNAR AIVO ; KASNAR AIVO ; SAAREVAELI AARNE ; SAAREVALI AARNE ; VALDMAA ANDRUS
Inventor(s): KĆ¤SNAR, AIVO ; SAAREVĆ¤LI, AARNE ; VALDMAA ANDRUS 61714 UELENURME PARISH
Agent(s): ARIAS JUAN; BERGGREN INC; BERGGREN LLP; CEMEN KARABAG; SARAP MARGUS
Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CY1119421 T1	20180307	LSGT	+	granted / extensions (spc, cpc, pte)	
CY1119421 T1	20371004	PEXP		Calculated	

				Patent Term Expiry	
CY1121126 T1	20191211	LSGT	+	granted / extensions (spc, cpc, pte)	
CY1121126 T1	20390116	PEXP		Calculated Patent Term Expiry	
DE602014012748 D1	20170206		R079	AMENDMENT OF IPC MAIN CLASS	ClassificationScheme: IPC ClassificationSymbol: B29B0017000000 Text: PREVIOUS MAIN CLASS: B29B0017000000
DK2937199 T3	20171120	LSGT	+	granted / extensions (spc, cpc, pte)	
DK2937199 T3	20340425	PEXP		Calculated Patent Term Expiry	
DK3208063 T3	20190211	LSGT	+	granted / extensions (spc, cpc, pte)	
DK3208063 T3	20340425	PEXP		Calculated Patent Term Expiry	
EP2937199 A1	20151028	LSPB	+	published / reissued	
EP2937199 A1	20151028		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP2937199 A1	20151028		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Country of Ref document: BA ME
EP2937199 A1	20160601	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20160425
EP2937199 A1	20160601		+RBV	DESIGNATED CONTRACTING STATES (CORRECTED)	Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP2937199 A1	20160615	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PartyType: owner Owner: ROLAN INVESTMENT OUE
EP2937199 A1	20160907	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 20160805
EP2937199 A1	20170315		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: B29C 31/06 20060101ALI20170206BHEP ClassificationScheme: IPC
EP2937199 A1	20170315		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: B29B 17/00 20060101AFI20170206BHEP ClassificationScheme: IPC
EP2937199 A1	20170315		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: B29C 47/88 20060101ALI20170206BHEP
EP2937199 A1	20170315		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: B29C 47/60 20060101ALI20170206BHEP ClassificationScheme: IPC
EP2937199 A1	20170315		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: B29C 47/06 20060101ALI20170206BHEP
EP2937199 A1	20170315		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: B29C 47/90 20060101ALI20170206BHEP
EP2937199 A1	20170315		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: C08J 9/00 20060101ALI20170206BHEP
EP2937199 A1	20170315		RIC1	INFORMATION PROVIDED ON	ClassificationScheme: IPC ClassificationSymbol: B29K

				IPC CODE ASSIGNED BEFORE GRANT	101/12 20060101ALI20170206BHEP
EP2937199 A1	20170315		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: B29C 47/86 20060101ALI20170206BHEP
EP2937199 A1	20170315		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: B29C 47/92 20060101ALI20170206BHEP
EP2937199 A1	20170315		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: B29C 47/34 20060101ALI20170206BHEP
EP2937199 A1	20170315		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: B29K 105/26 20060101ALI20170206BHEP ClassificationScheme: IPC
EP2937199 A1	20170315		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: B29C 47/00 20060101ALI20170206BHEP ClassificationScheme: IPC
EP2937199 A1	20170315		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: B29K 105/00 20060101ALI20170206BHEP ClassificationScheme: IPC
EP2937199 A1	20170315		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: B29C 47/82 20060101ALI20170206BHEP
EP2937199 A1	20170322	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	Effective date: 20170222
EP2937199 B1	20170809	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2937199 B1	20170809		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: B1 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP2937199 B1	20170809	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref country code: GB Ref legal event code: FG4D
EP2937199 B1	20170815	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: EP
EP2937199 B1	20170815	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref document number: 916332 Ref legal event code: REF Ref country code: AT Kind code of Ref document: T Effective date: 20170815 Country of Ref document: AT
EP2937199 B1	20170906	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: FG4D Ref country code: IE
EP2937199 B1	20170921	LSPB	REG	REFERENCE TO A NATIONAL CODE	Ref country code: DE Ref document number: 602014012748 Ref legal event code: R096 Country of Ref document: DE
EP2937199 B1	20171030	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref country code: RO Ref legal event code: EPE
EP2937199 B1	20171101		REG	REFERENCE TO A NATIONAL CODE	Ref country code: NL Ref legal event code: FP
EP2937199 B1	20171114		REG	REFERENCE TO A NATIONAL CODE	Ref country code: PT Effective date: 20171106 Ref document number: 2937199 Ref legal event code: SC4A Kind code of Ref document: T Date of Ref document: 20171114 Text: AVAILABILITY OF NATIONAL TRANSLATION Country of Ref document: PT
EP2937199 B1	20171115		REG	REFERENCE TO A NATIONAL CODE	Ref document number: E014262 Ref country code: EE Effective date: 20170817 Ref legal event code: FG4A Country of Ref document: EE
EP2937199 B1	20171120		REG	REFERENCE TO A NATIONAL CODE	Effective date: 20171114 Ref legal event code: T3 Ref country code: DK

EP2937199 B1	20171120	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref country code: NO Effective date: 20170809 Ref legal event code: T2
EP2937199 B1	20171212	LSGT	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20171212 Kind code of Ref document: T3 Ref document number: 2646179 Ref country code: ES Ref legal event code: FG2A Country of Ref document: ES
EP2937199 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20170809 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: SE
EP2937199 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20170809 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: HR
EP2937199 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20170809 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: RS
EP2937199 B1	20180404	LSRE	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20180330 Ref legal event code: EP Ref country code: GR Ref document number: 20170403009 Country of Ref document: GR
EP2937199 B1	20180427	LSFE	REG	REFERENCE TO A NATIONAL CODE	Year of fee payment: 5 Ref legal event code: PLFP Ref country code: FR
EP2937199 B1	20180511	LSRE	REG	REFERENCE TO A NATIONAL CODE	Ref document number: 602014012748 Ref legal event code: R097 Ref country code: DE Country of Ref document: DE
EP2937199 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20170809 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: SM
EP2937199 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20170809 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: SK
EP2937199 B1	20180629	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 5 Payment date: 20180419 Country of Ref document: NL
EP2937199 B1	20180718	LSGT	+26N	NO OPPOSITION FILED	Effective date: 20180511
EP2937199 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180509 Year of fee payment: 5 Country of Ref document: ES
EP2937199 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180419 Year of fee payment: 5 Country of Ref document: CZ
EP2937199 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 5 Payment date: 20180417 Country of Ref document: FI
EP2937199 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL	Year of fee payment: 5 Payment date: 20180427 Country of Ref document: IE

				OFFICE TO EPO]	
EP2937199 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 5 Payment date: 20180503 Country of Ref document: CH
EP2937199 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180418 Year of fee payment: 5 Country of Ref document: PT
EP2937199 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180427 Year of fee payment: 5 Country of Ref document: DE
EP2937199 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 5 Payment date: 20180426 Country of Ref document: EE
EP2937199 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180430 Year of fee payment: 5 Country of Ref document: DK
EP2937199 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 5 Payment date: 20180430 Country of Ref document: NO
EP2937199 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 5 Payment date: 20180418 Country of Ref document: LT
EP2937199 B1	20180807		REG	REFERENCE TO A NATIONAL CODE	Ref country code: SE Ref legal event code: TRGR
EP2937199 B1	20180807	LSRE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: SE Effective date: 20180717 Ref legal event code: RINS
EP2937199 B1	20180828	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref document number: E037158 Ref country code: HU Ref legal event code: AG4A Country of Ref document: HU
EP2937199 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 5 Payment date: 20180418 Country of Ref document: SI
EP2937199 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 5 Payment date: 20180418 Country of Ref document: BG
EP2937199 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180424 Year of fee payment: 5 Country of Ref document: IT
EP2937199 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 5 Payment date: 20180427 Country of Ref document: FR
EP2937199 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 5 Payment date: 20180425 Country of Ref document: IS
EP2937199 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180420 Year of fee payment: 5 Country of Ref document: LV
EP2937199 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED	Year of fee payment: 5 Payment date: 20180418 Country of Ref document: PL

				FROM NATIONAL OFFICE TO EPO]	
EP2937199 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 5 Payment date: 20180419 Country of Ref document: RO
EP2937199 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180417 Year of fee payment: 5 Country of Ref document: GR
EP2937199 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 5 Payment date: 20180419 Country of Ref document: BE
EP2937199 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 5 Payment date: 20180418 Country of Ref document: TR
EP2937199 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 5 Payment date: 20180427 Country of Ref document: GB
EP2937199 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20170809 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: MC
EP2937199 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180717 Year of fee payment: 5 Country of Ref document: HU
EP2937199 B1	20181130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 5 Payment date: 20180719 Country of Ref document: SE
EP2937199 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20180425 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: LU
EP2937199 B1	20190131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180418 Year of fee payment: 5 Country of Ref document: CY
EP2937199 B1	20190628	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190430 Year of fee payment: 6 Country of Ref document: NL
EP2937199 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190429 Country of Ref document: DE
EP2937199 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190429 Country of Ref document: NO
EP2937199 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190429 Year of fee payment: 6 Country of Ref document: FI
EP2937199 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE	Payment date: 20190426 Year of fee payment: 6 Country of Ref document: PT

				[ANNOUNCED FROM NATIONAL OFFICE TO EPO]	
EP2937199 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190428 Country of Ref document: IE
EP2937199 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190424 Country of Ref document: PL
EP2937199 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190523 Year of fee payment: 6 Country of Ref document: ES
EP2937199 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190430 Country of Ref document: DK
EP2937199 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190426 Country of Ref document: IT
EP2937199 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190425 Country of Ref document: LT
EP2937199 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190425 Country of Ref document: CY
EP2937199 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190425 Country of Ref document: CZ
EP2937199 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190425 Country of Ref document: MT
EP2937199 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190425 Country of Ref document: TR
EP2937199 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190425 Year of fee payment: 6 Country of Ref document: BG
EP2937199 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190430 Year of fee payment: 6 Country of Ref document: GR
EP2937199 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190425 Year of fee payment: 6 Country of Ref document: LV
EP2937199 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190428 Year of fee payment: 6 Country of Ref document: SE
EP2937199 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190428 Year of fee payment: 6 Country of Ref document: FR

EP2937199 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190425 Country of Ref document: SI
EP2937199 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190425 Country of Ref document: RO
EP2937199 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190428 Country of Ref document: EE
EP2937199 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190430 Year of fee payment: 6 Country of Ref document: BE
EP2937199 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190426 Country of Ref document: HU
EP2937199 B1	20190930	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190426 Year of fee payment: 6 Country of Ref document: IS
EP2937199 B1	20190930	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190502 Country of Ref document: CH
EP2937199 B1	20191031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20170809 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: SE
EP2937199 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190425 Country of Ref document: GB
EP2937199 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190430 Year of fee payment: 6 Country of Ref document: AT
EP2937199 B1	20191031	LSRE	+PGRI	PATENT REINSTATED IN CONTRACTING STATE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Reinstated date: 20180717 Country of Ref document: SE
EP2937199 B1	20191115	LSPB	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20170809 Kind code of Ref document: T Ref legal event code: UEP Ref country code: AT Ref document number: 916332 Country of Ref document: AT
EP2937199 B1	20200515	LSAS	REG	REFERENCE TO A NATIONAL CODE	Ref document number: E014262 Ref country code: EE Ref legal event code: HC1A Country of Ref document: EE
EP2937199 B1	20200630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20170809 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: MK
EP2937199 B1	20200731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL	Lapsed date: 20170809 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT

				OFFICE TO EPO]	Country of Ref document: AL
EP2937199 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200427 Country of Ref document: GR
EP2937199 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200427 Year of fee payment: 7 Country of Ref document: TR
EP2937199 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200427 Country of Ref document: RO
EP2937199 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200430 Year of fee payment: 7 Country of Ref document: CH
EP2937199 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200428 Country of Ref document: DK
EP2937199 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200428 Year of fee payment: 7 Country of Ref document: DE
EP2937199 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200427 Year of fee payment: 7 Country of Ref document: IE
EP2937199 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200428 Country of Ref document: NO
EP2937199 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200427 Year of fee payment: 7 Country of Ref document: EE
EP2937199 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200427 Country of Ref document: CZ
EP2937199 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200428 Country of Ref document: LT
EP2937199 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200428 Year of fee payment: 7 Country of Ref document: CY
EP2937199 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200427 Year of fee payment: 7 Country of Ref document: FR
EP2937199 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200428 Year of fee payment: 7 Country of Ref document: NL
EP2937199 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200427 Year of fee payment: 7 Country of Ref document: PT
EP2937199 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL	Payment date: 20200428 Year of fee payment: 7

				OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Country of Ref document: FI
EP2937199 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200502 Country of Ref document: HU
EP2937199 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200427 Country of Ref document: SE
EP2937199 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200427 Year of fee payment: 7 Country of Ref document: GB
EP2937199 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200430 Year of fee payment: 7 Country of Ref document: IT
EP2937199 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200429 Year of fee payment: 7 Country of Ref document: PL
EP2937199 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200427 Country of Ref document: IS
EP2937199 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200427 Country of Ref document: LV
EP2937199 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200427 Year of fee payment: 7 Country of Ref document: BG
EP2937199 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200428 Country of Ref document: BE
EP2937199 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200428 Country of Ref document: SI
EP2937199 B1	20200930	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200427 Country of Ref document: MT
EP2937199 B1	20200930	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200430 Year of fee payment: 7 Country of Ref document: AT
EP2937199 B1	20201030	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200710 Country of Ref document: ES
EP2937199 B1	20340425	PEXP		Calculated Patent Term Expiry	
EP3208063 A1	20170823	LSPB	+	published / reissued	
EP3208063 A1	20170823		AC	DIVISIONAL APPLICATION: REFERENCE TO EARLIER APPLICATION	Ref document number: 2937199 Kind code of Ref document: P Country of Ref document: EP

EP3208063 A1	20170823		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP3208063 A1	20180404	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20180223
EP3208063 A1	20180404		+RBV	DESIGNATED CONTRACTING STATES (CORRECTED)	Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP3208063 A1	20180530	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	Effective date: 20180507
EP3208063 B1	20181017	LSGT	+	granted / extensions (spc, cpc, pte)	
EP3208063 B1	20181017		AC	DIVISIONAL APPLICATION: REFERENCE TO EARLIER APPLICATION	Ref document number: 2937199 Kind code of Ref document: P Country of Ref document: EP
EP3208063 B1	20181017		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: B1 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP3208063 B1	20181017	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref country code: GB Ref legal event code: FG4D
EP3208063 B1	20181031	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: EP Ref country code: CH
EP3208063 B1	20181114	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: FG4D Ref country code: IE
EP3208063 B1	20181115	LSNP	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20181115 Ref legal event code: REF Ref country code: AT Kind code of Ref document: T Ref document number: 1053463 Country of Ref document: AT
EP3208063 B1	20181115	LSPB	REG	REFERENCE TO A NATIONAL CODE	Ref country code: DE Ref document number: 602014034479 Ref legal event code: R096 Country of Ref document: DE
EP3208063 B1	20190129		REG	REFERENCE TO A NATIONAL CODE	Date of Ref document: 20190129 Effective date: 20190117 Ref country code: PT Kind code of Ref document: T Ref document number: 3208063 Text: AVAILABILITY OF NATIONAL TRANSLATION Ref legal event code: SC4A Country of Ref document: PT
EP3208063 B1	20190207	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: EPE Ref country code: RO
EP3208063 B1	20190211		REG	REFERENCE TO A NATIONAL CODE	Effective date: 20190207 Ref legal event code: T3 Ref country code: DK
EP3208063 B1	20190220		REG	REFERENCE TO A NATIONAL CODE	Ref country code: NL Ref legal event code: FP
EP3208063 B1	20190226		REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: TRGR Ref country code: SE
EP3208063 B1	20190318	LSNP	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20181017 Ref legal event code: T2 Ref country code: NO
EP3208063 B1	20190424	LSRE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: GR Ref document number: 20190400150 Ref legal event code: EP Effective date: 20190422 Country of Ref document: GR
EP3208063 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20181017 Country of Ref document: HR
EP3208063 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190213 Year of fee payment: 6 Country of Ref document: IS
EP3208063 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID	Year of fee payment: 6

				TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190225 Country of Ref document: LT
EP3208063 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190117 Country of Ref document: BG
EP3208063 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190213 Year of fee payment: 6 Country of Ref document: CZ
EP3208063 B1	20190515		REG	REFERENCE TO A NATIONAL CODE	Ref country code: EE Ref document number: E017089 Effective date: 20190318 Ref legal event code: FG4A Country of Ref document: EE
EP3208063 B1	20190528	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref document number: E041501 Ref country code: HU Ref legal event code: AG4A Country of Ref document: HU
EP3208063 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20181017 Country of Ref document: AL
EP3208063 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20181017 Country of Ref document: RS
EP3208063 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190318 Year of fee payment: 6 Country of Ref document: BE
EP3208063 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190117 Country of Ref document: TR
EP3208063 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190214 Country of Ref document: GR
EP3208063 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190319 Year of fee payment: 6 Country of Ref document: DK
EP3208063 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190318 Year of fee payment: 6 Country of Ref document: NL
EP3208063 B1	20190610	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref document number: 2716155 Effective date: 20190610 Kind code of Ref document: T3 Ref country code: ES Ref legal event code: FG2A Country of Ref document: ES
EP3208063 B1	20190718	LSRE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: DE Ref document number: 602014034479 Ref legal event code: R097 Country of Ref document: DE
EP3208063 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190426 Country of Ref document: IT
EP3208063 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED	Payment date: 20190116 Year of fee payment: 6 Country of Ref document: PL

				FROM NATIONAL OFFICE TO EPO]	
EP3208063 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190429 Country of Ref document: FI
EP3208063 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190429 Country of Ref document: DE
EP3208063 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190121 Country of Ref document: PT
EP3208063 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190129 Year of fee payment: 6 Country of Ref document: CY
EP3208063 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190428 Country of Ref document: IE
EP3208063 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190429 Year of fee payment: 6 Country of Ref document: NO
EP3208063 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20181017 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: SK
EP3208063 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20181017 Country of Ref document: SM
EP3208063 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190115 Country of Ref document: SI
EP3208063 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190418 Year of fee payment: 6 Country of Ref document: HU
EP3208063 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190425 Country of Ref document: MT
EP3208063 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190428 Year of fee payment: 6 Country of Ref document: FR
EP3208063 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190428 Year of fee payment: 6 Country of Ref document: EE
EP3208063 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190428 Country of Ref document: SE
EP3208063 B1	20190925	LSGT	+26N	NO OPPOSITION FILED	Effective date: 20190718
EP3208063 B1	20190930	LSFE	+PGFP	ANNUAL FEE PAID	Year of fee payment: 6

				TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190502 Country of Ref document: CH
EP3208063 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190729 Country of Ref document: ES
EP3208063 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190430 Year of fee payment: 6 Country of Ref document: AT
EP3208063 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190425 Year of fee payment: 6 Country of Ref document: GB
EP3208063 B1	20191129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20190712 Country of Ref document: LV
EP3208063 B1	20191231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20190425 Country of Ref document: LU
EP3208063 B1	20191231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20181017 Country of Ref document: MC
EP3208063 B1	20200131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20181017 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: RO
EP3208063 B1	20200515	LSAS	REG	REFERENCE TO A NATIONAL CODE	Ref country code: EE Ref legal event code: HC1A Ref document number: E017089 Country of Ref document: EE
EP3208063 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200427 Year of fee payment: 7 Country of Ref document: FR
EP3208063 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200428 Year of fee payment: 7 Country of Ref document: NL
EP3208063 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200428 Year of fee payment: 7 Country of Ref document: LT
EP3208063 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200427 Country of Ref document: GR
EP3208063 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200428 Country of Ref document: NO
EP3208063 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200427 Year of fee payment: 7 Country of Ref document: TR
EP3208063 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID	Payment date: 20200430

				TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Country of Ref document: CH
EP3208063 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200427 Year of fee payment: 7 Country of Ref document: EE
EP3208063 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200428 Country of Ref document: CY
EP3208063 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200428 Year of fee payment: 7 Country of Ref document: FI
EP3208063 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200428 Year of fee payment: 7 Country of Ref document: DE
EP3208063 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200427 Year of fee payment: 7 Country of Ref document: PT
EP3208063 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200427 Country of Ref document: RO
EP3208063 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200428 Year of fee payment: 7 Country of Ref document: DK
EP3208063 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200427 Country of Ref document: IE
EP3208063 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200427 Year of fee payment: 7 Country of Ref document: CZ
EP3208063 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200429 Country of Ref document: PL
EP3208063 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200430 Country of Ref document: IT
EP3208063 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200427 Country of Ref document: GB
EP3208063 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200428 Country of Ref document: SI
EP3208063 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200425 Year of fee payment: 7 Country of Ref document: HU
EP3208063 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL	Payment date: 20200427 Year of fee payment: 7 Country of Ref document: LV

				OFFICE TO EPO]	
EP3208063 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200427 Year of fee payment: 7 Country of Ref document: IS
EP3208063 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200427 Country of Ref document: SE
EP3208063 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200428 Country of Ref document: BE
EP3208063 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200427 Year of fee payment: 7 Country of Ref document: BG
EP3208063 B1	20200930	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200427 Country of Ref document: MT
EP3208063 B1	20200930	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20200430 Country of Ref document: AT
EP3208063 B1	20201030	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200731 Year of fee payment: 7 Country of Ref document: ES
EP3208063 B1	20201215	LSPB	REG	REFERENCE TO A NATIONAL CODE	Ref document number: 1053463 Kind code of Ref document: T Ref country code: AT Ref legal event code: UEP Effective date: 20181017 Country of Ref document: AT
EP3208063 B1	20340425	PEXP		Calculated Patent Term Expiry	
ES2646179 T3	20171212	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2646179 T3	20340425	PEXP		Calculated Patent Term Expiry	
ES2716155 T3	20190610	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2716155 T3	20340425	PEXP		Calculated Patent Term Expiry	
HU037158 T2	20180828	LSPB	+	published / reissued	
HU041501 T2	20190528	LSPB	+	published / reissued	
LT2937199 T	20171211	LSGT	+	granted / extensions (spc, cpc, pte)	
LT2937199 T	20340425	PEXP		Calculated Patent Term Expiry	
LT3208063 T	20190211	LSGT	+	granted / extensions (spc, cpc, pte)	
LT3208063 T	20340425	PEXP		Calculated Patent Term Expiry	
PL2937199 T3	20180131	LSGT	+	granted / extensions (spc, cpc, pte)	
PL3208063 T3	20190628	LSGT	+	granted / extensions (spc, cpc, pte)	

PT2937199 T	20171114	LSGT	+	granted / extensions (spc, cpc, pte)	
PT2937199 T	20340425	PEXP		Calculated Patent Term Expiry	
PT3208063 T	20190129	LSGT	+	granted / extensions (spc, cpc, pte)	
PT3208063 T	20340425	PEXP		Calculated Patent Term Expiry	
SI2937199 T1	20180430	LSGT	+	granted / extensions (spc, cpc, pte)	
SI2937199 T1	20340425	PEXP		Calculated Patent Term Expiry	
SI3208063 T1	20190430	LSGT	+	granted / extensions (spc, cpc, pte)	
SI3208063 T1	20340425	PEXP		Calculated Patent Term Expiry	
TR201716143 T4	20171221	LSGT	+	granted / extensions (spc, cpc, pte)	
TR201716143 T4	20340425	PEXP		Calculated Patent Term Expiry	
TR201900715 T4	20190221	LSGT	+	granted / extensions (spc, cpc, pte)	
TR201900715 T4	20340425	PEXP		Calculated Patent Term Expiry	
US10486352 BB	20161214	LSAS	AS	ASSIGNMENT	PartyType: owner Owner: ROLAN INVESTMENT OUE, ESTONIA OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:REXEST GRUPP OUE;REEL/FRAME:040731/0733 Effective date: 20150806
US10486352 BB	20161214	LSAS	AS	ASSIGNMENT	Effective date: 20140609 PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:VALDMAA, ANDRUS;KAESNAR, AIVO;SAAREVAELI, AARNE;REEL/FRAME:040731/0676 Owner: REXEST GRUPP OUE, ESTONIA
US10486352 BB	20170307		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: DOCKETED NEW CASE - READY FOR EXAMINATION
US10486352 BB	20191126	LSGT	+	granted / extensions (spc, cpc, pte)	
US10486352 BB	20351018	PEXP		Calculated Patent Term Expiry (PTA 496 days)	
US2015306804 AA	20151029	LSPB	+	published / reissued	
US2015306804 AA	20160718	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:REXEST GRUPP OUE;REEL/FRAME:039175/0052 Owner: ROLAN INVESTMENT OUE, ESTONIA PartyType: owner Effective date: 20150806
US2015306804 AA	20170125	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2017087758 AA	20170307		RFE1	Docketed New Case - Ready for Examination	
US2017087758 AA	20170330	LSPB	+	published /	

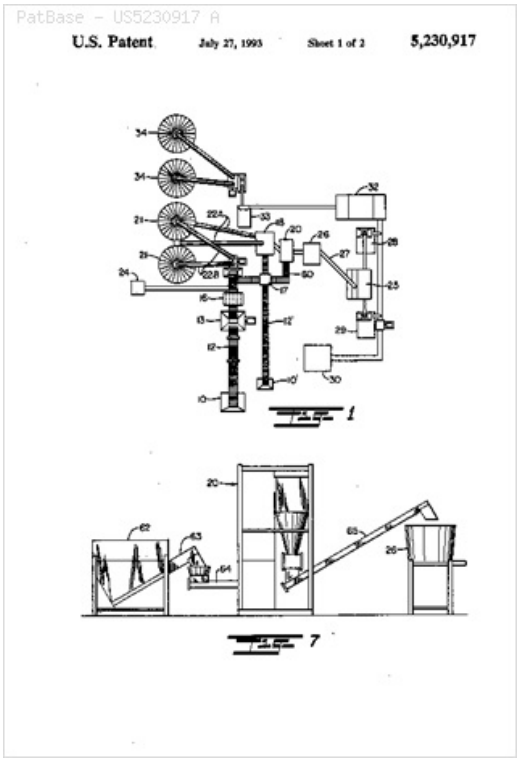
				reissued	
US2017087758 AA	20190620	LSES	NFA1	Non Final Action Mailed	
US2017087758 AA	20190620		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: NON FINAL ACTION MAILED
US2017087758 AA	20190712	LSES	NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017087758 AA	20190712		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: NOTICE OF ALLOWANCE MAILED -- APPLICATION RECEIVED IN OFFICE OF PUBLICATIONS
US2017087758 AA	20191017	LSFE	PPV1	Publications -- Issue Fee Payment Verified	
US2017087758 AA	20191017		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: PUBLICATIONS -- ISSUE FEE PAYMENT VERIFIED
US2017087758 AA	20191106	LSGT	PAT1	Patented Case	
US2017087758 AA	20191106	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US9566736 BB	20140722	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:VALDMAA, ANDRUS;KAESNAR, AIVO;SAAREVAELI, AARNE;REEL/FRAME:033364/0035 PartyType: owner Owner: REXEST GRUPP OUE, ESTONIA Effective date: 20140609
US9566736 BB	20150916	LSES	NFA1	Non Final Action Mailed	
US9566736 BB	20151216		RSP4	Response to Non-Final Office Action Entered and Forwarded to Examiner	
US9566736 BB	20170125	LSGT	PAT1	Patented Case	
US9566736 BB	20170214	LSGT	+	granted / extensions (spc, cpc, pte)	
US9566736 BB	20200814	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	Year of fee payment: 4
US9566736 BB	20340724	PEXP		Calculated Patent Term Expiry (PTA 45 days)	

59) Family number: 30857537 (US5230917 A)

Title: METHOD FOR SEPARATION OF CANNED GOODS AND RECLAIMING USEFUL FOOD VALUES THEREFROM

Abstract: Food contents are separated from ferrous metal cans for conversion into useful byproducts by lacerating the can bodies into strips of metal to expose their contents, advancing along a vibrating **conveyor** section through a liquid spray, followed by magnetic separation to remove the metal strips and separately collect the food contents and metal strips for recycling. In order to convert the food contents into animal **feed**, the contents are first dried to reduce their moisture level either by mechanical dehydration or by the addition of bulking agents and then advanced through an **extruder** section to convert the food contents into dry particle form.

Classifications:
International (IPC 8-9): A23K1/00 A23K1/10 A23L1/00 A23N17/00 A23N17/02 B03B7/00 B03B9/00 B03B9/06 B09B3/00
International (IPC 1-7): A23K1/00 A23K1/10 A23K1/14 A23L1/00 A23N17/02 A23P1/00 B03B7/00 B03B9/06 B03C1/00 B08B3/02 B09B3/00
CPC: A23K40/20 A23K40/25 B03B9/061 B09B3/00 B09B3/0058 Y02P60/87 Y02W30/52 Y02W30/82
US: 209/215 209/3.1 209/31 241/20 241/24 241/24.14 241/24.15 241/24.16 426/465 426/478 426/516 426/635 99/353 99/483 99/484 99/516 99/536 99/537 994/830



Family:

Publication number	Publication date	Application number	Application date
AU199228211 A1	19930513	AU19920028211	19921109
CA2082329 AA	19930513	CA19922082329	19921106
DE69225775 D1	19980709	DE19926025775T	19921102
EP0542458 A2	19930519	EP19920310016	19921102
EP0542458 A3	19940126	EP19920310016	19921102
EP0542458 B1	19980603	EP19920310016	19921102
JP5336942 A2	19931221	JP19920326280	19921112
MX9206500 A1	19940531	MX19920006500	19921111
US5230917 A	19930727	US19910790368	19911112
US5352469 A	19941004	US19920966872	19921026
US5438918 A	19950808	US19930077123	19930614
US5346714 A	19940913	US19930077126	19930614

Priority:
US19910790368 19911112 US19920966872 19921026 CA19922082329 19921106
US19930077126 19930614 US19930077123 19930614

Probable Assignee: SSDE TECHNOLOGIES CORP
Assignee(s): (std): S S D II TECHNOL CORP ; SSDE TECHNOLOGIES CORP
Assignee(s): NELSON MARK L ; PETERS THOMAS J ; SMITH ALAN L ; SSDE TECHNOLOGIES A CORORATION OF CO CORP ; SSDE TECHNOLOGIES CORP DENVER COL US ; SSDE TECHNOLOGIES PO BOX 22729 WELLSHIRE STATION D
Inventor(s): (std): PETERS THOMAS J ; TOOMASU JIEE PIITAASU
Inventor(s): THOMAS J PETERS
Agent(s): CULLENS PATENT AND TRADE MARK ATTORNEYS; CULLENS PTY LTD; SMART AND BIGGAR; SPRUSON AND FERGUSON
Designated states: DE FR GB IT NL

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU199228211 A1	19930513	LSPB	+	published / reissued	
CA2082329 AA	19930513	LSPB	+	published / reissued	

CA2082329 AA	19991105	LSES	+EEER	EXAMINATION REQUEST	
CA2082329 AA	20011106	LSLE	-FZDE	DEAD	
DE69225775 D1	19981217	LSWD	-8332	NO LEGAL EFFECT FOR DE	
DE69225775 D1	19981217	LSWD	-8332	NO LEGAL EFFECT FOR DE	
EP0542458 A2	19930519	LSPB	+	published / reissued	
EP0542458 A2	19930519		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A2 Country of Ref document: DE FR GB IT NL
EP0542458 A3	19940126		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A3 Country of Ref document: DE FR GB IT NL
EP0542458 A3	19941130	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 19940930
EP0542458 A3	19960320	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 19960205
EP0542458 B1	19980603	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0542458 B1	19980603		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: B1 Country of Ref document: DE FR GB IT NL
EP0542458 B1	19980603	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 19980603 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: FR
EP0542458 B1	19980603	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 19980603 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: IT
EP0542458 B1	19980603	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 19980603 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: NL
EP0542458 B1	19980603	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 19980603 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT;WARNING: LAPSES OF ITALIAN PATENTS WITH EFFECTIVE DATE BEFORE 2007 MAY HAVE OCCURRED AT ANY TIME BEFORE 2007. THE CORRECT EFFECTIVE DATE MAY BE DIFFERENT FROM THE ONE RECORDED. Country of Ref document: IT
EP0542458 B1	19980709		REF	CORRESPONDS TO:	Date of Ref document: 19980709 Ref document number: 69225775 Country of Ref document: DE
EP0542458 B1	19980904	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 19980904 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: DE
EP0542458 B1	19981030		-EN	FR: TRANSLATION NOT FILED	
EP0542458 B1	19981102	LSLE	-NLV1	NL: LAPSED OR ANNULLED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT	Ref country code: EP
EP0542458 B1	19981102	LSLE	-PG25	LAPSED IN A CONTRACTING	Lapsed date: 19981102 NotificationOfLapse: LAPSE

				STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: GB
EP0542458 B1	19990526	LSGT	+26N	NO OPPOSITION FILED	
EP0542458 B1	19990623	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	Effective date: 19981102 Ref country code: EP
EP0542458 B1	20121102	PEXP		Calculated Patent Term Expiry	
JP5336942 A2	19931221	LSPB	+	published / reissued	
MX9206500 A1	19940531	LSPB	+	published / reissued	
US5230917 A	19911112	LSAS	AS	ASSIGNMENT	Effective date: 19911112 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST.;ASSIGNOR:PETERS, THOMAS J.;REEL/FRAME:005915/0443 Owner: SSDE TECHNOLOGIES CORPORATION A CORORATION OF C PartyType: owner
US5230917 A	19930727	LSGT	+	granted / extensions (spc, cpc, pte)	
US5230917 A	19960826	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5230917 A	20000717	LSAS	AS	ASSIGNMENT	Effective date: 19991103 OldParty: SECURITY AGREEMENT;ASSIGNOR:PETERS, THOMAS J.;REEL/FRAME:010968/0072 Owner: NELSON, MARK L., COLORADO PartyType: owner
US5230917 A	20000717	LSAS	AS	ASSIGNMENT	Effective date: 20000103 OldParty: SECURITY AGREEMENT;ASSIGNOR:PETERS, THOMAS J.;REEL/FRAME:010968/0106 Owner: SMITH, ALAN L., MICHIGAN PartyType: owner
US5230917 A	20010220		REMI	MAINTENANCE FEE REMINDER MAILED	
US5230917 A	20010726	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US5230917 A	20010726		+SULP	SURCHARGE FOR LATE PAYMENT	Year of fee payment: 7
US5230917 A	20050209		REMI	MAINTENANCE FEE REMINDER MAILED	
US5230917 A	20050727	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5230917 A	20050824	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5230917 A	20050824	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5230917 A	20050920	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20050727
US5230917 A	20101013	LSAS	AS	ASSIGNMENT	Effective date: 19991103 OldParty: CORRECTIVE ASSIGNMENT TO CORRECT THE TO REMOVE THE INCORRECT PATENT NUMBER 5,352,468 PREVIOUSLY RECORDED ON REEL 010968 FRAME 0072. ASSIGNOR(S) HEREBY CONFIRMS THE SECURITY AGREEMENT;ASSIGNOR:PETERS, THOMAS J;REEL/FRAME:025126/0498 Owner: NELSON, MARK L, COLORADO PartyType: owner
US5230917 A	20101013	LSAS	AS	ASSIGNMENT	Effective date: 20000103 OldParty: CORRECTIVE ASSIGNMENT TO CORRECT THE TO REMOVE THE INCORRECT PATENT NUMBERS 5,246,714 AND 5,352,468 PREVIOUSLY RECORDED ON REEL 010968

					FRAME 0106. ASSIGNOR(S) HEREBY CONFIRMS THE SECURITY AGREEMENT;ASSIGNOR:PETERS, THOMAS J;REEL/FRAME:025126/0923 Owner: SMITH, ALAN L, MICHIGAN PartyType: owner
US5230917 A	20111112	PEXP		Calculated Patent Term Expiry	
US5346714 A	19940913	LSGT	+	granted / extensions (spc, cpc, pte)	
US5346714 A	19971017	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5346714 A	20000717	LSAS	AS	ASSIGNMENT	Effective date: 19991103 OldParty: SECURITY AGREEMENT;ASSIGNOR:PETERS, THOMAS J.;REEL/FRAME:010968/0072 Owner: NELSON, MARK L., COLORADO PartyType: owner
US5346714 A	20020402		REMI	MAINTENANCE FEE REMINDER MAILED	
US5346714 A	20020912	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US5346714 A	20020912		+SULP	SURCHARGE FOR LATE PAYMENT	Year of fee payment: 7
US5346714 A	20060329		REMI	MAINTENANCE FEE REMINDER MAILED	
US5346714 A	20060913	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5346714 A	20061012	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5346714 A	20061012	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5346714 A	20061107	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20060913
US5346714 A	20101013	LSAS	AS	ASSIGNMENT	Effective date: 19991103 OldParty: CORRECTIVE ASSIGNMENT TO CORRECT THE TO REMOVE THE INCORRECT PATENT NUMBER 5,352,468 PREVIOUSLY RECORDED ON REEL 010968 FRAME 0072. ASSIGNOR(S) HEREBY CONFIRMS THE SECURITY AGREEMENT;ASSIGNOR:PETERS, THOMAS J;REEL/FRAME:025126/0498 Owner: NELSON, MARK L, COLORADO PartyType: owner
US5346714 A	20101013	LSAS	AS	ASSIGNMENT	Effective date: 20000103 OldParty: CORRECTIVE ASSIGNMENT TO CORRECT THE TO REMOVE THE INCORRECT PATENT NUMBERS 5,246,714 AND 5,352,468 PREVIOUSLY RECORDED ON REEL 010968 FRAME 0106. ASSIGNOR(S) HEREBY CONFIRMS THE SECURITY AGREEMENT;ASSIGNOR:PETERS, THOMAS J;REEL/FRAME:025126/0923 Owner: SMITH, ALAN L, MICHIGAN PartyType: owner
US5346714 A	20130614	PEXP		Calculated Patent Term Expiry	
US5352469 A	19930121	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST.;ASSIGNOR:PETERS, THOMAS J.;REEL/FRAME:006386/0023 PartyType: owner Owner: SSDE TECHNOLOGIES CORPORATION, COLORADO Effective date: 19921026
US5352469 A	19941004	LSGT	+	granted / extensions (spc, cpc, pte)	
US5352469 A	19980812		REMI	MAINTENANCE FEE REMINDER MAILED	
US5352469 A	19981005	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5352469 A	19981005		+SULP	SURCHARGE FOR	

				LATE PAYMENT	
US5352469 A	20000717	LSAS	AS	ASSIGNMENT	OldParty: SECURITY AGREEMENT;ASSIGNOR:PETERS, THOMAS J.;REEL/FRAME:010968/0072 PartyType: owner Effective date: 19991103 Owner: NELSON, MARK L., COLORADO
US5352469 A	20020423		REMI	MAINTENANCE FEE REMINDER MAILED	
US5352469 A	20020923	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US5352469 A	20020923		+SULP	SURCHARGE FOR LATE PAYMENT	Year of fee payment: 7
US5352469 A	20060419		REMI	MAINTENANCE FEE REMINDER MAILED	
US5352469 A	20061004	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5352469 A	20061101	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5352469 A	20061101	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5352469 A	20061128	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20061004
US5352469 A	20101013	LSAS	AS	ASSIGNMENT	OldParty: CORRECTIVE ASSIGNMENT TO CORRECT THE TO REMOVE THE INCORRECT PATENT NUMBER 5,352,468 PREVIOUSLY RECORDED ON REEL 010968 FRAME 0072. ASSIGNOR(S) HEREBY CONFIRMS THE SECURITY AGREEMENT;ASSIGNOR:PETERS, THOMAS J;REEL/FRAME:025126/0498 Owner: NELSON, MARK L, COLORADO Effective date: 19991103 PartyType: owner
US5352469 A	20101013	LSAS	AS	ASSIGNMENT	Effective date: 20000103 Owner: SMITH, ALAN L, MICHIGAN OldParty: CORRECTIVE ASSIGNMENT TO CORRECT THE TO REMOVE THE INCORRECT PATENT NUMBERS 5,246,714 AND 5,352,468 PREVIOUSLY RECORDED ON REEL 010968 FRAME 0106. ASSIGNOR(S) HEREBY CONFIRMS THE SECURITY AGREEMENT;ASSIGNOR:PETERS, THOMAS J;REEL/FRAME:025126/0923 PartyType: owner
US5352469 A	20121026	PEXP		Calculated Patent Term Expiry	
US5438918 A	19950808	LSGT	+	granted / extensions (spc, cpc, pte)	
US5438918 A	19990205	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5438918 A	20030226		REMI	MAINTENANCE FEE REMINDER MAILED	
US5438918 A	20030808	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US5438918 A	20030808		+SULP	SURCHARGE FOR LATE PAYMENT	Year of fee payment: 7
US5438918 A	20070221		REMI	MAINTENANCE FEE REMINDER MAILED	
US5438918 A	20070808	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5438918 A	20070903	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5438918 A	20070903	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5438918 A	20070925	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20070808
US5438918 A	20130614	PEXP		Calculated Patent	

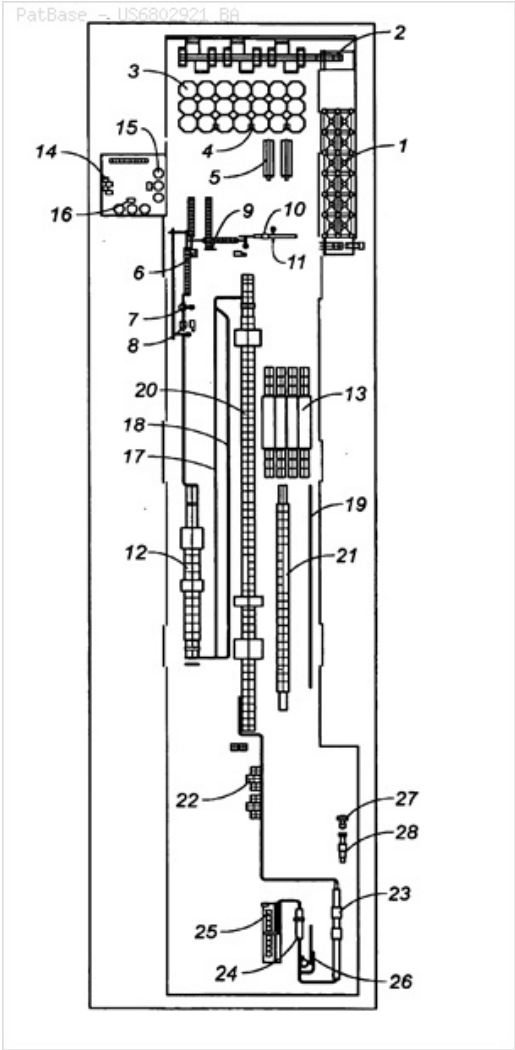
Term Expiry

60) Family number: 1554160 (US6802921 BA)

Title: PROCESS AND SYSTEM FOR VITRIFIED **EXTRUDED** CERAMIC TILES AND PROFILES

Abstract: A novel process for **manufacturing** fully vitrified flat **extruded** ceramic glazed, unglazed tiles and profiles includes the following steps: mixing of raw materials in predetermined ratios; wet milling in ball mills; mechanical filter pressing to get cakes; shredding of cake to obtain noodles like structure; using a de-airing pug mill machine to produce proper mixing by removing of air the body; drawing a column of clay body through a die for required shapes; drying in three layer horizontal drier and chamber drier; coloring in a appropriate glazing line; firing in a appropriate roller kiln; sorting line; packing and palletizing machine; and using a sawing and glueing machine for smaller size tiles to make patterns and for border tiles. The invention also includes a system for carrying out the invented process so as to achieve high quality fully vitrified ceramic tiles and profiles.

Classifications:
International (IPC 8-9): B28B15/00 B28B17/00 B28B17/02 B28B3/02 B28B3/20 B28C1/00 C04B33/00 C04B33/24
International (IPC 1-7): B28B1/500 B28B1/702 B28B15/00 B28B17/02 B28B3/02 B28B3/20 B28C1/00 C04B33/24
CPC: B28B15/00 B28B17/026 B28B3/20 B28C1/003 Y10T156/1079 Y10T156/1322
US: 156/244.11 156/266 156/500 156/517 156/63 156/89.11 156/89.24 264/609 264/638 264/652 264/680 425/202 425/461 425/90



Family:

Publication number	Publication date	Application number	Application date
AU200054252 A1	20011008	AU20000054252	20000329
AU200054252 A5	20011008	AU20000054252D	20000329
BRPI0017186 A	20030318	BR2000PI17186	20000329
CN1452539 A	20031029	CN20008019538	20000329
EP1268149 A1	20030102	EP20000939043	20000329
JP2003530238 T2	20031014	JP20010570428T	20000329
US6802921 BA	20041012	US20030240059	20030211
WO0172490 A1	20011004	WO2000IN00035	20000329

Priority:
WO2000IN00035 20000329

Probable Assignee: BOSS PROFILES LTD

Assignee(s): (std): BOSS PROFILES LTD ; GHOSH SNEHASISH ; KASTURI UMAPATHY RAO ; RAO KASTURI UMAPATHY ; RUDRAPATNAKESHAVAMURTHY VENKAT ; SNEHASISH GHOSH ; UMAPATHY RAO KASTURI ; VENKATESHA RUDRAPATNAKESHAVAMU

Assignee(s): BOSS PROFILES LIMITED ; RUDRAPATNAKESHAVAMURTHY VENKATESHA ; VENKATESHA RUDRAPATNAKESHAVAMURTHY

Inventor(s): (std): GHOSH SNEHASISH ; RAO KASTURI UMAPATHY ; UMAPATHY RAO KASTURI ; VENKATESHA RUDRAPATNAKESHAVAMU

Inventor(s): KASTURI UMAPATHY RAO ; RUDRAPATNAKESHAVAMURTHY VENKATESHA ; SNEHASISH GHOSH ; VENKATESHA RUDRAPATNAKESHAVAMURTHY

Agent(s): HARRISON AND EGBERT

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CR CU CY CZ DE DK DM DZ EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR

LS LT LU LV MA MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU200054252 A1	20011008	LSPB	+	published / reissued	
AU200054252 A5	20020411	LSLE	-MK6	APPLICATION LAPSED SECTION 142(2)(F)/REG. 8.3(3) - PCT APPLIC. NOT ENTERING NATIONAL PHASE	
BRPI0017186 A	20030318	LSPB	+	published / reissued	
BRPI0017186 A	20070828	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	Text: REFERENTE 4A,5A, 6A E 7A ANUIDADES
BRPI0017186 A	20111213	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	Text: REFERENTE AO DESPACHO 8.6 PUBLICADO NA RPI 1912 DE 28/08/2007.
CN1452539 A	20031029	LSPB	+	published / reissued	
CN1452539 A	20031029	LSPB	+C06	PUBLICATION	
CN1452539 A	20040204		C10	ENTRY INTO SUBSTANTIVE EXAMINATION	
CN1452539 A	20051102	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
EP1268149 A1	20030102	LSPB	+	published / reissued	
EP1268149 A1	20030102	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20021029
EP1268149 A1	20030102		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
EP1268149 A1	20030102		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Text: AL;LT;LV;MK;RO;SI
EP1268149 A1	20040204	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 20031223
EP1268149 A1	20041103	LSRE	RTI1	TITLE (CORRECTION)	Text: PROCESS AND SYSTEM FOR MANUFACTURING VITRIFIED EXTRUDED CERAMIC TILES AND PROFILES
EP1268149 A1	20050907	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	Effective date: 20050301
JP2003530238 T2	20031014	LSPB	+	published / reissued	
US6802921 BA	20030211	LSAS	AS	ASSIGNMENT	Owner: BOSS PROFILES LIMITED, INDIA PartyType: owner Effective date: 20021003 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:VENKATESHA, RUDRAPATNAKESHAVAMURTHY;GHOSH, SNEHASISH;UMAPATHY RAO, KASTURI;REEL/FRAME:013994/0674
US6802921 BA	20041012	LSGT	+	granted / extensions (spc, cpc, pte)	
US6802921 BA	20080421		REMI	MAINTENANCE FEE REMINDER MAILED	
US6802921 BA	20081012	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	

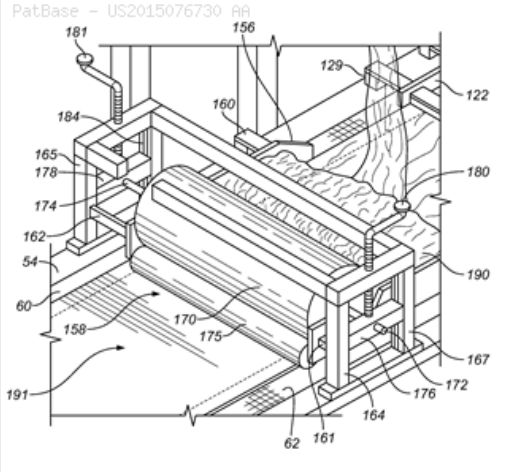
US6802921 BA	20081110	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6802921 BA	20081110	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6802921 BA	20081202	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20081012
US6802921 BA	20230211	PEXP		Calculated Patent Term Expiry	
WO0172490 A1	20011004	LSPB	+	published / reissued	
WO0172490 A1	20011004		+AK	DESIGNATED STATES	Kind code of Ref document: A1 Country of Ref document: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
WO0172490 A1	20011004		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: A1 Country of Ref document: AM AT AZ BE BF BJ BY CF CG CH CI CM CY DE DK ES FI FR GA GB GH GM GN GR GW IE IT KE KG KZ LS LU MC MD ML MR MW NE NL PT RU SD SE SL SN SZ TD TG TJ TM TZ UG ZW
WO0172490 A1	20011128		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	
WO0172490 A1	20020103		DFPE	REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH MONTH FROM PRIORITY DATE (PCT APPLICATION FILED BEFORE 20040101)	
WO0172490 A1	20020927	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 2001 570428 Country of Ref document: JP
WO0172490 A1	20020928	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2000939043 Country of Ref document: EP
WO0172490 A1	20021030	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 1200200991 Country of Ref document: VN
WO0172490 A1	20021115	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 008195382 Country of Ref document: CN
WO0172490 A1	20030102	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: 2000939043 Country of Ref document: EP
WO0172490 A1	20030211	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 10240059 Country of Ref document: US
WO0172490 A1	20050301	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	Ref document number: 2000939043 Country of Ref document: EP

61) Family number: 58728551 (US2015076730 AA)

Title: FORMATION OF CEMENTITIOUS BOARD WITH LIGHTWEIGHT AGGREGATE BACKGROUND

Abstract: A process for the formation of highly durable cementitious board using lightweight aggregate is disclosed. The process comprises pouring a core mix onto a **conveyor**, wherein the core mix is comprised of one or more lightweight aggregate filler in the amount of 0.5 to 5 weight percent of the core mix, one or more binders in the amount of 35 to 75 weight percent of the core mix, rheological admixture in the amount of about 0.5 to 5 weight percent of the core mix, surfactant in the amount of 0 to 0.1 weight percent of the core mix, one or more normal weight aggregate filler in the amount of 5 to 50 weight percent of the core mix, and water in the amount of 5 to 20 weight percent of the core mix. The process further comprises passing the core mix under a screed roller to flatten the core mix to produce an **extruding** board with a desired thickness.

Classifications:
International (IPC 8-9): B28B1/52 B28B23/00 B29D99/00
CPC: B28B1/525 B28B1/526 B28B23/0006 B28B23/0062 B28B23/0087
US: 264/171.17 1/1



Family:

Publication number	Publication date	Application number	Application date
US2015076730 AA	20150319	US20130028072	20130916
US9676118 BB	20170613	US20130028072	20130916

Priority:

US20130028072 20130916

Probable Assignee: NATIONAL GYPSUM PROPERTIES LLC

Assignee(s): (std): BRASSARD JEAN FRANCOIS ; DUBE BENOIT ; GUERTIN PATRICK ; L HEUREUX JACQUES ; MATHIEU MARIA ANDREE ; MATHIEU MARIE ANDREE ; NAT GYPSUM CO ; NAT GYPSUM PROPERTIES LLC ; POTVIN FREDERIC

Assignee(s): BANK OF AMERICA NA COLLATERAL AGENT AS ; NATIONAL GYPSUM CO ; NATIONAL GYPSUM PROPERTIES LLC

Inventor(s): (std): BRASSARD JEAN FRANCOIS ; DUBE BENOIT ; GUERTIN PATRICK ; L HEUREUX JACQUES ; MATHIEU MARIA ANDREE ; MATHIEU MARIE ANDREE ; POTVIN FREDERIC

Agent(s): ICE MILLER LLP

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US2015076730 AA	20150319	LSPB	+	published / reissued	
US2015076730 AA	20161028	LSAS	AS	ASSIGNMENT	Effective date: 20161028 Owner: BANK OF AMERICA, N.A., AS COLLATERAL AGENT, CALIFO PartyType: owner OldParty: SECURITY INTEREST;ASSIGNOR:NATIONAL GYPSUM PROPERTIES, LLC;REEL/FRAME:040159/0088
US2015076730 AA	20161028	LSAS	AS	ASSIGNMENT	Effective date: 20161028 PartyType: owner Owner: BANK OF AMERICA, N.A., AS COLLATERAL AGENT, CALIFORNIA OldParty: SECURITY INTEREST;ASSIGNOR:NATIONAL GYPSUM PROPERTIES, LLC;REEL/FRAME:040159/0088
US2015076730 AA	20170510	LSFE	PPV1	Publications - - Issue Fee Payment Verified	
US2015076730 AA	20170524	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US9676118 BB	20131023	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:MATHIEU, MARIE-ANDREE;DUBE, BENOIT;POTVIN,

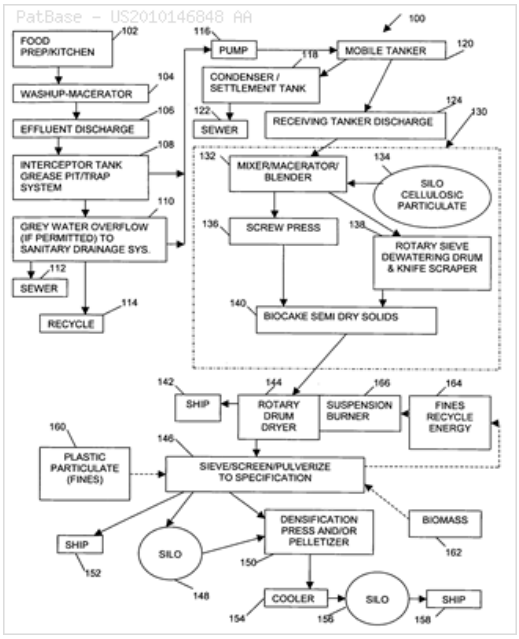
					FREDERIC;AND OTHERS;SIGNING DATES FROM 20131011 TO 20131022;REEL/FRAME:031457/0781 Owner: NATIONAL GYPSUM PROPERTIES, LLC, NORTH CAROLINA PartyType: owner
US9676118 BB	20151128		RSP4	Response to Non-Final Office Action Entered and Forwarded to Examiner	
US9676118 BB	20170524	LSGT	PAT1	Patented Case	
US9676118 BB	20170613	LSGT	+	granted / extensions (spc, cpc, pte)	
US9676118 BB	20200928	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	Year of fee payment: 4
US9676118 BB	20340311	PEXP		Calculated Patent Term Expiry (PTA 176 days)	

62) Family number: 43781270 (US2010146848 AA)

Title: FUEL FORMED OF CELLULOSIC AND BIOSOLID MATERIALS

Abstract: A fuel preferably pelletized and method of forming a fuel including a quantity of a natural particulate cellulosic material and a quantity of a particulate biosolid material from a bioslurry effluent derived substantially from fats, oils and grease (FOG) found in non-edible food residuals from sanitary sewer drainage (SSD). The biosolid material and the cellulosic material are substantially homogenous, preferably having a moisture content of from about 5 percent to about 15 percent by weight and at least substantially minus 5 mesh. A quantity of particulate synthetic polymeric thermoplastic fines material may be added for increased fuel energy content.

Classifications:
International (IPC 8-9): C10L5/40 C10L5/44 C10L5/46
CPC: C10L5/363 C10L5/44 C10L5/46 Y02E50/10 Y02E50/30
US: 44/504 44/504P



Family:

Publication number	Publication date	Application number	Application date
CA2719690 AA	20091001	CA20092719690	20090326
EP2268776 A2	20110105	EP20090724058	20090326
EP2268776 A4	20120516	EP20090724058	20090326
US2010146848 AA	20100617	US20080079795	20080327
WO09120842 A2	20091001	WO2009US38363	20090326
WO09120842 A3	20100128	WO2009US38363	20090326

Priority:
US20080079795 20080327 WO2009US38363 20090326

Probable Assignee: JOHNSTON WILHELMINA EE

Assignee(s): (std): JOHNSTON IAN FRASER ; JOHNSTON WILHELMINA E E ; NEEL ELENE M

Inventor(s): (std): JOHNSTON IAN FRASER ; JOHNSTON WILHELMINA E E ; NEEL ELENE M

Agent(s): CHRISTIE PARKER AND HALE LLP; EKE PHILIPPA DIANNE; PRESCOTT CHARLES J

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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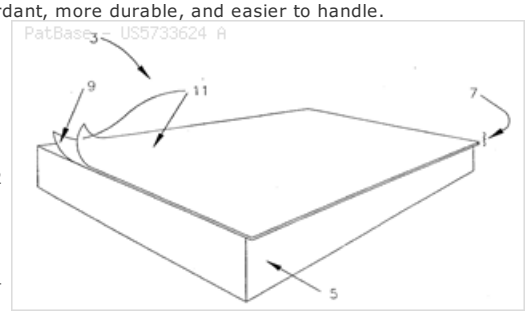
Patent	Date recorded	Event group	Code	Event	Details
CA2719690 AA	20091001	LSPB	+	published / reissued	
CA2719690 AA	20150521	LSLE	-FZDE	DEAD	Effective date: 20150326
EP2268776 A2	20110105	LSPB	+	published / reissued	
EP2268776 A2	20110105	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20101026
EP2268776 A2	20110105		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A2 Country of Ref document: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK TR
EP2268776 A2	20110105		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Country of Ref document: AL BA RS
EP2268776 A2	20110706		DAX	REQUEST FOR EXTENSION OF THE	

				EUROPEAN PATENT (DELETED)	
EP2268776 A4	20120516	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	Effective date: 20120417
EP2268776 A4	20120516		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: C10L 5/46 20060101AFI20120411BHEP ClassificationScheme: IPC
EP2268776 A4	20120516		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: C10L 5/44 20060101ALI20120411BHEP
EP2268776 A4	20130522	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	Effective date: 20121115
US2010146848 AA	20090318	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:JOHNSTON, IAN FRASER;REEL/FRAME:022414/0616 PartyType: owner Effective date: 20081204 Owner: NEEL, ELENE M.,FLORIDA
US2010146848 AA	20090318	LSAS	AS	ASSIGNMENT	PartyType: owner Owner: JOHNSTON, WILHELMINA E.E.,FLORIDA OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:JOHNSTON, IAN FRASER;REEL/FRAME:022414/0616 Effective date: 20081204
US2010146848 AA	20100617	LSPB	+	published / reissued	
US2010146848 AA	20140121	LSWD	ABD1	Abandoned -- After Examiner's Answer or Board of Appeals Decision	
US2010146848 AA	20140121		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- AFTER EXAMINER'S ANSWER OR BOARD OF APPEALS DECISION
WO09120842 A2	20091001	LSPB	+	published / reissued	
WO09120842 A2	20091125		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Kind code of Ref document: A2 Ref document number: 09724058 Country of Ref document: EP
WO09120842 A3	20100924	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2719690 Country of Ref document: CA
WO09120842 A3	20100928	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO09120842 A3	20101026	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2009724058 Country of Ref document: EP

63) Family number: 10783784 (US5733624 A)

Title: MINERAL FIBER INSULATION BATT IMPREGNATED WITH COEXTRUDED POLYMER LAYERING SYSTEM

Abstract: A mineral fiber (e.g. fiberglass) thermal insulation batt is disclosed wherein a base mineral fiber layer is impregnated with a two-layer layering system so as to produce a batt which is substantially vapor impermeable with a perm vapor rating less than about one. The first layer of the layering system is of a low melt material while the second layer is of a high melt material, the first layer being sandwiched between the base insulating layer and the second layer, and functioning to bond the layering system to the base. In certain embodiments, the first layer includes quick blooming ethyl vinyl acetate (e.g. from about 10-25 percent) and a low density (e.g. 22-26 lbs. per cubic foot) polyethylene, and the second layer includes high density (e.g. 28-38 lbs. per cubic foot) polyethylene. The resulting insulation batt is vapor impermeable, less susceptible to cold-crack, easier to **manufacture**, a better fire retardant, more durable, and easier to handle.



Classifications:
International (IPC 8-9): B05B7/02 B05B7/08 B05B7/12 B05C5/02 B29B15/10 B29B15/12 B29C47/02 B29C48/15 B29C48/16 B29C67/24 B29C70/04 B29C70/50 B32B17/04 B32B17/10 B32B27/12 B32B5/22 B32B5/26 B32B7/022 B32B7/04 D04H1/4226 D04H1/593 D04H1/64 D04H13/00 E04B1/76 E04B1/78 F16L59/02
International (IPC 1-7): B05B7/08 B05B7/12 B05C5/02 B29B15/10 B29B15/12 B29C47/02 B29C67/24 B29C70/50 B32B1/04 B32B17/02 B32B17/04 B32B27/12 B32B31/20 B32B31/30 B32B5/26 D04H1/56 D04H13/00 E04B1/62 E04B2/00
CPC: B05B7/0861 B05B7/0884 B05B7/1263 B05C5/0237 B05C5/0279 B29B15/12 B29C67/249 B29C70/50 B29C70/506 B29K2031/04 B32B2307/304 B32B2310/0825 B32B27/12 B32B37/04 B32B38/0036 B32B5/26 B32B7/04 D04H1/4226 D04H1/593 D04H1/64 E04B1/7662 E04B1/78 F16L59/026 B29K2023/083 B29B15/122 B32B19/02 B32B19/045 B32B2262/101 B32B2307/7242 B32B27/32 D04H1/4218 D04H1/587 Y10T428/1314 Y10T428/1321 Y10T428/23 Y10T428/237 Y10T428/2419 Y10T428/24231 Y10T428/24273 Y10T442/2025 Y10T442/2943 Y10T442/2992 Y10T442/678 Y10T442/693 B32B2307/3065 B32B27/08 D04H1/4209 D04H1/4374 D04H1/655 B05B7/1272
US: 118/315 118/316 156/244.27 156/309.6 156/309.9 156/495 156/62.2 264/112 264/121 264/171.13 264/518 425/114 425/7 425/72.2 425/81.1 425/83.1 428/121 428/126 428/131 428/34.5 428/34.7 428/68 428/74 442/174 442/180 442/398 442/412 442/62 52/404.1 52/406.2

Family:

Publication number	Publication date	Application number	Application date
CA2211309 AA	19980122	CA19972211309	19970722
CA2243736 AA	19990122	CA19982243736	19980721
CA2243736 C	20020416	CA19982243736	19980721
CA2243739 AA	19990122	CA19982243739	19980721
CA2243739 C	20020212	CA19982243739	19980721
US5733624 A	19980331	US19960684463	19960722
US5746854 A	19980505	US19960686049	19960722
US5900298 A	19990504	US19970898101	19970722
US5879615 A	19990309	US19970898421	19970722
US6135747 A	20001024	US19990226219	19990107

Priority:

US19960684463 19960722
US19970898101 19970722
CA19982243739 19980721
US19960686049 19960722
US19970898421 19970722
US19990226219 19990107
CA19972211309 19970722
CA19982243736 19980721

Probable Assignee: GUARDIAN FIBERGLASS INC

Assignee(s): (std): GUARDIAN FIBERGLASS INC

Assignee(s): CHURCH JOSEPH T ; GUARDIAN FIBERGLASS LLC ; KNAUF INSULATION INC ; KNAUF INSULATION LLC ; ROMES GARY E ; SANFORD STEVEN ; SYME ROBERT W

Inventor(s): (std): CHURCH JOSEPH T ; ROMES GARY E ; SANFORD STEVEN ; SYME ROBERT W

Agent(s): NEXUS LAW GROUP LLP; VERMETTE AND CO

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CA2211309 AA	19980120	LSES	+EEER	EXAMINATION REQUEST	
CA2211309 AA	19980122	LSPB	+	published / reissued	
CA2211309 AA	20030722	LSLE	-FZDE	DEAD	
CA2243736 AA	19981113	LSES	+EEER	EXAMINATION REQUEST	
CA2243736 AA	19990122	LSPB	+	published / reissued	
CA2243736 C	20020416	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2243736 C	20030721	LSLE	-MKLA	LAPSED	
CA2243736 C	20180721	PEXP		Calculated Patent Term Expiry	
CA2243739 AA	19981106	LSES	+EEER	EXAMINATION REQUEST	
CA2243739 AA	19990122	LSPB	+	published / reissued	
CA2243739 C	20020212	LSGT	+	granted / extensions	

				(spc, cpc, pte)	
CA2243739 C	20030721	LSLE	-MKLA	LAPSED	
CA2243739 C	20180721	PEXP		Calculated Patent Term Expiry	
US5733624 A	19961001	LSAS	AS	ASSIGNMENT	Effective date: 19960923 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:SANFORD, STEVEN;REEL/FRAME:008221/0721 Owner: GUARDIAN FIBERGLASS, INC., MICHIGAN PartyType: owner
US5733624 A	19961001	LSAS	AS	ASSIGNMENT	Effective date: 19960918 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:CHURCH, JOSEPH T.;REEL/FRAME:008221/0727 Owner: GUARDIAN FIBERGLASS, INC., MICHIGAN PartyType: owner
US5733624 A	19961001	LSAS	AS	ASSIGNMENT	Effective date: 19960918 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ROMES, GARY E.;REEL/FRAME:008221/0731 Owner: GUARDIAN FIBERGLASS, INC., MICHIGAN PartyType: owner
US5733624 A	19961001	LSAS	AS	ASSIGNMENT	Effective date: 19960924 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:SYME, ROBERT W.;REEL/FRAME:008221/0738 Owner: GUARDIAN FIBERGLASS, INC., MICHIGAN PartyType: owner
US5733624 A	19980323	LSGT	PAT1	Patented Case	
US5733624 A	19980323	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US5733624 A	19980331	LSGT	+	granted / extensions (spc, cpc, pte)	
US5733624 A	20010904	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5733624 A	20050930	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US5733624 A	20090930	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US5733624 A	20150825	LSAS	AS	ASSIGNMENT	Effective date: 20140807 OldParty: CHANGE OF NAME;ASSIGNOR:GUARDIAN FIBERGLASS, INC.;REEL/FRAME:036446/0206 Owner: GUARDIAN FIBERGLASS, LLC, INDIANA PartyType: owner
US5733624 A	20150825	LSAS	AS	ASSIGNMENT	Effective date: 20140808 OldParty: CHANGE OF NAME;ASSIGNOR:GUARDIAN FIBERGLASS, LLC;REEL/FRAME:036446/0335 Owner: KNAUF INSULATION, LLC, INDIANA PartyType: owner
US5733624 A	20150825	LSAS	AS	ASSIGNMENT	Effective date: 20150630 OldParty: CHANGE OF NAME;ASSIGNOR:KNAUF INSULATION, LLC;REEL/FRAME:036446/0563 Owner: KNAUF INSULATION, INC., INDIANA PartyType: owner
US5733624 A	20160722	PEXP		Calculated Patent Term Expiry	
US5746854 A	19961001	LSAS	AS	ASSIGNMENT	Effective date: 19960924 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:SYME, ROBERT W.;REEL/FRAME:008258/0487 Owner: GUARDIAN FIBERGLASS, INC., MICHIGAN PartyType: owner
US5746854 A	19961001	LSAS	AS	ASSIGNMENT	Effective date: 19960923 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:SANFORD, STEVEN;REEL/FRAME:008258/0888 Owner: GUARDIAN FIBERGLASS, INC., MICHIGAN PartyType: owner

US5746854 A	19961001	LSAS	AS	ASSIGNMENT	Effective date: 19960918 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ROMES, GARY E.;REEL/FRAME:008258/0899 Owner: GUARDIAN FIBERGLASS, INC., MICHIGAN PartyType: owner
US5746854 A	19961001	LSAS	AS	ASSIGNMENT	Effective date: 19960918 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:CHURCH, JOSEPH T.;REEL/FRAME:008258/0908 Owner: GUARDIAN FIBERGLASS, INC., MICHIGAN PartyType: owner
US5746854 A	19980422	LSGT	PAT1	Patented Case	
US5746854 A	19980422	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US5746854 A	19980505	LSGT	+	granted / extensions (spc, cpc, pte)	
US5746854 A	20011030	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5746854 A	20011127		REMI	MAINTENANCE FEE REMINDER MAILED	
US5746854 A	20051107	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US5746854 A	20091105	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US5746854 A	20150825	LSAS	AS	ASSIGNMENT	Effective date: 20140807 OldParty: CHANGE OF NAME;ASSIGNOR:GUARDIAN FIBERGLASS, INC.;REEL/FRAME:036446/0206 Owner: GUARDIAN FIBERGLASS, LLC, INDIANA PartyType: owner
US5746854 A	20150825	LSAS	AS	ASSIGNMENT	Effective date: 20140808 OldParty: CHANGE OF NAME;ASSIGNOR:GUARDIAN FIBERGLASS, LLC;REEL/FRAME:036446/0335 Owner: KNAUF INSULATION, LLC, INDIANA PartyType: owner
US5746854 A	20150825	LSAS	AS	ASSIGNMENT	Effective date: 20150630 OldParty: CHANGE OF NAME;ASSIGNOR:KNAUF INSULATION, LLC;REEL/FRAME:036446/0563 Owner: KNAUF INSULATION, INC., INDIANA PartyType: owner
US5746854 A	20160722	PEXP		Calculated Patent Term Expiry	
US5879615 A	19971222	LSAS	AS	ASSIGNMENT	Effective date: 19970718 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:CHURCH, JOSEPH T.;REEL/FRAME:008919/0040 Owner: GUARDIAN FIBERGLASS, INC., MICHIGAN PartyType: owner
US5879615 A	19971222	LSAS	AS	ASSIGNMENT	Effective date: 19970721 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:SYME, ROBERT W.;REEL/FRAME:008919/0051 Owner: GUARDIAN FIBERGLASS, INC., MICHIGAN PartyType: owner
US5879615 A	19971222	LSAS	AS	ASSIGNMENT	Effective date: 19970718 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ROMES, GARY E.;REEL/FRAME:008919/0074 Owner: GUARDIAN FIBERGLASS, INC., MICHIGAN PartyType: owner
US5879615 A	19990309	LSGT	+	granted / extensions (spc, cpc, pte)	
US5879615 A	19990713	LSRE	CC	CERTIFICATE OF CORRECTION	
US5879615 A	20020925		REMI	MAINTENANCE FEE REMINDER MAILED	
US5879615 A	20030310	LSLE	-LAPS	LAPSE FOR FAILURE	

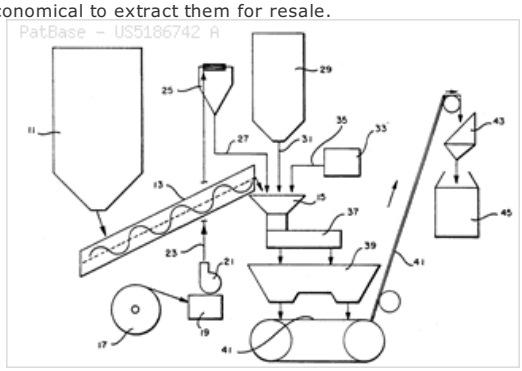
				TO PAY MAINTENANCE FEES	
US5879615 A	20030409	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5879615 A	20030409	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5879615 A	20030506	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20030309
US5879615 A	20170722	PEXP		Calculated Patent Term Expiry	
US5900298 A	19980206	LSAS	AS	ASSIGNMENT	Effective date: 19980109 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ROMES, GARY E.;REEL/FRAME:008984/0736 Owner: GUARDIAN FIBERGLASS, INC., MICHIGAN PartyType: owner
US5900298 A	19980206	LSAS	AS	ASSIGNMENT	Effective date: 19980115 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:CHURCH, JOSEPH T.;REEL/FRAME:008984/0742 Owner: GUARDIAN FIBERGLASS, INC., MICHIGAN PartyType: owner
US5900298 A	19980206	LSAS	AS	ASSIGNMENT	Effective date: 19980110 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:SYME, ROBERT W.;REEL/FRAME:008986/0637 Owner: GUARDIAN FIBERGLASS, INC., MICHIGAN PartyType: owner
US5900298 A	19990504	LSGT	+	granted / extensions (spc, cpc, pte)	
US5900298 A	20021120		REMI	MAINTENANCE FEE REMINDER MAILED	
US5900298 A	20030505	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5900298 A	20030604	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5900298 A	20030604	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5900298 A	20030701	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20030504
US5900298 A	20170722	PEXP		Calculated Patent Term Expiry	
US6135747 A	20001024	LSGT	+	granted / extensions (spc, cpc, pte)	
US6135747 A	20040512		REMI	MAINTENANCE FEE REMINDER MAILED	
US6135747 A	20041025	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6135747 A	20041124	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6135747 A	20041124	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6135747 A	20041221	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20041024
US6135747 A	20190107	PEXP		Calculated Patent Term Expiry	

64) Family number: 11058269 (US5186742 A)

Title: METHOD AND COMPOSITION FOR USE IN RECYCLING METAL CONTAINING FURNACE DUST

Abstract: A process is shown where an arc dust waste produced by an electric arc furnace is conducted to silos and converted to a reusable co-product by means of the addition of a special blend of high calcium and dolomitic quicklime, calcium stearate and pulverized waste **paper**. The mixture is **compressed** into compact pellets which, due to their impact integrity and improved shelf life can be pneumatically conveyed intact into storage silos for recycling of the waste electric arc flue dust into the furnace melt. Components of the arc dust deemed leachable and hazardous in landfills, such as zinc, lead and chromium are increased in concentration to a point where it is economical to extract them for resale.

Classifications:
International (IPC 8-9): C22B1/14 C22B1/24 C22B7/02
International (IPC 1-7): C21B1/24 C22B1/00 C22B1/08
CPC: C22B1/2406 C22B7/02 Y02P10/20
US: 75/772 75/773



Family:

Publication number	Publication date	Application number	Application date
MX9206861 A1	19930501	MX19920006861	19921127
US5186742 A	19930216	US19910799407	19911127
WO9311269 A1	19930610	WO1992US09315	19921106

Priority:
US19910799407 19911127

Probable Assignee: CHEMICAL LIME LTD
Assignee(s): (std): CHEMICAL LIME LTD
Assignee(s): CHEMICAL LIME CO ; CHEMICAL LIME CO A CORP OF NEVADA ; CHEMICAL LIME COMPANY
Inventor(s): (std): HAINS NORMAN L ; HOFFMAN DAVID C
Inventor(s): DAVID C HOFFMAN ; NORMAN L HAINS
Designated states: AT BE CA CH DE DK ES FR GB GR IE IT LU MC NL SE

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
MX9206861 A1	19930501	LSPB	+	published / reissued	
US5186742 A	19911127	LSAS	AS	ASSIGNMENT	PartyType: owner Owner: CHEMICAL LIME COMPANY OldParty: ASSIGNMENT OF ASSIGNORS INTEREST.;ASSIGNOR:HOFFMAN, DAVID C.;REEL/FRAME:005963/0650 Effective date: 19911126
US5186742 A	19911127	LSAS	AS	ASSIGNMENT	Effective date: 19911126 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST.;ASSIGNOR:HAINS, NORMAN L.;REEL/FRAME:005963/0652 PartyType: owner Owner: CHEMICAL LIME COMPANY
US5186742 A	19930203	LSGT	PAT1	Patented Case	
US5186742 A	19930216	LSGT	+	granted / extensions (spc, cpc, pte)	
US5186742 A	19960226	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5186742 A	20000912		REMI	MAINTENANCE FEE REMINDER MAILED	
US5186742 A	20010218	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5186742 A	20010424	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20010216
US5186742 A	20111127	PEXP		Calculated Patent Term Expiry	
US5186742 A	20180127	LSLE	PEX1	Patent Expired Due to	

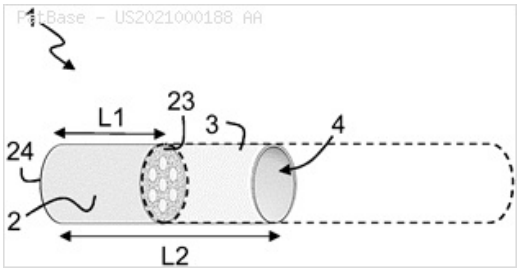
				NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5186742 A	20180127	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
WO9311269 A1	19930610	LSPB	+	published / reissued	
WO9311269 A1	19930610		+AK	DESIGNATED STATES	Kind code of Ref document: A1 Country of Ref document: CA
WO9311269 A1	19930610		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: A1 Country of Ref document: AT BE CH DE DK ES FR GB GR IE IT LU MC NL SE
WO9311269 A1	19931014		DFPE	REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH MONTH FROM PRIORITY DATE (PCT APPLICATION FILED BEFORE 20040101)	
WO9311269 A1	19950727	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: CA
WO9311269 A1	19960612	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	Ref country code: WO

65) Family number: 75838994 (US2021000188 AA)

Title: AEROSOL GENERATING ARTICLES

Abstract: A filter part (**1, 1**') for use in an aerosol generating article and a method of **manufacturing** the filter part (**1, 1**'). The filter part (**1, 1**') includes an aerosol permeable core (**2**) within a sleeve (**3**) formed integrally therearound. The core (**2**) is shorter than the integrally formed sleeve (**3**). The method includes conveying a plurality of aerosol permeable cores (**2**) along a conveying path at a first speed (S**1**) and forming a sleeve (**3**) around each core (**2**) at a second speed (S**2**). The second speed (S**2**) is greater than the first speed (S**1**) to generate a space between consecutive cores (**2**) within the sleeve (**3**).

Classifications:
International (IPC 8-9): A24D1/04 A24D1/20 A24D3/02 A24D3/04 A24D3/06 A24D3/08 A24D3/10 A24D3/17 A24F40/40 A24F42/60 A24F42/80 A24F47/00 B29C48/00 B29C48/16 B29C48/345 B29L31/00
CPC: A24D3/02 A24D3/0237 A24D3/04 A24D3/06 A24D3/066 A24D3/10 A24D3/17 A24F42/60 A24F42/80 A24D1/045 A24D1/20 A24D3/08 B29C48/16 B29C48/345



Family:

Publication number	Publication date	Application number	Application date
BR112020015960 A2	20201215	BR20201115960	20190225
CN111712143 A	20200925	CN201980013071	20190225
EP3761812 A1	20210113	EP20190706633	20190225
KR20200125606 A	20201104	KR20207024429	20190225
US2021000188 AA	20210107	US20190978264	20190225
WO19170455 A1	20190912	WO2019EP54546	20190225

Priority:
EP20180160817 20180308 WO2019EP54546 20190225

Probable Assignee: PHILIP MORRIS INT INC
Assignee(s): (std): PHILIP MORRIS PRODUCTS SA
Assignee(s): PHILIP MORRIS INT INC
Inventor(s): (std): BATISTA RUI NUNO ; EVA FERRARI ; FERRARI EVA ; JORDIL YVES ; POH YOKE TRITZ ; RUI NUNO BATISTA ; TRITZ POH YOKE ; YVES JORDIL
Agent(s): HGF; HGF LTD
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
BR112020015960 A2	20201215	LSPB	+	published / reissued	
CN111712143 A	20200925	LSPB	+	published / reissued	
CN111712143 A	20200925	LSPB	PB01	PUBLICATION	
CN111712143 A	20200925	LSPB	PB01	公开 (The publication of application)	Text: 公开 (Disclosure)
EP3761812 A1	20210113	LSPB	+	published / reissued	
EP3761812 A1	20210113	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20200331
EP3761812 A1	20210113		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP3761812 A1	20210113		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Country of Ref document: BA ME
KR20200125606 A	20201104	LSPB	+	published / reissued	
US2021000188 AA	20201002		APP1	Application Dispatched from Preexam, Not Yet Docketed	
US2021000188 AA	20201002		APP1	Application Dispatched from Preexam, Not Yet Docketed	
US2021000188 AA	20210107	LSPB	+	published / reissued	
WO19170455 A1	20190912	LSPB	+	published / reissued	

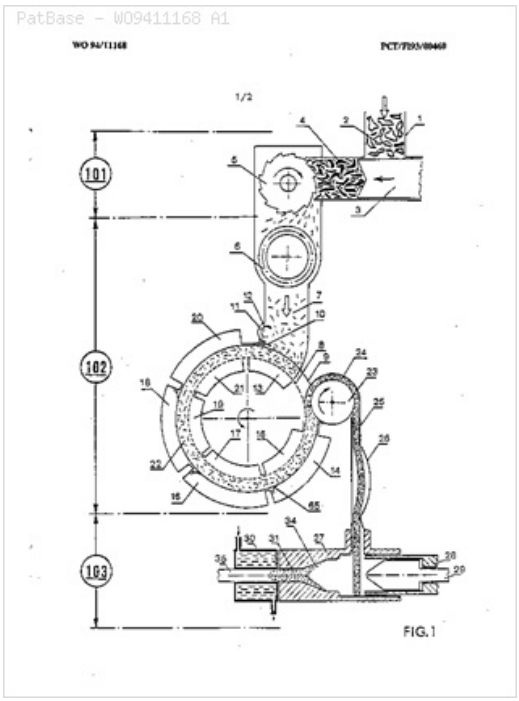
WO19170455 A1	20191023		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Kind code of Ref document: A1 Ref document number: 19706633 Country of Ref document: EP
WO19170455 A1	20200824	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 2020544631 Country of Ref document: JP
WO19170455 A1	20200909	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO19170455 A1	20201008	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2019706633 Country of Ref document: EP
WO19170455 A1	20201009	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Effective date: 20201008 Ref document number: 2019706633 Country of Ref document: EP
WO19170455 A1	20201020		REG	REFERENCE TO NATIONAL CODE	Ref country code: BR Ref document number: 112020015960 Ref legal event code: B01A Country of Ref document: BR
WO19170455 A1	20201215	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Effective date: 20200805 Ref document number: 112020015960 Kind code of Ref document: A2 Country of Ref document: BR

66) Family number: 18369828 (WO9411168 A1)

Title: A METHOD AND APPARATUS FOR **MANUFACTURING** BOARD- AND BAR-LIKE PRODUCTS, AND A PRODUCT **MANUFACTURED** THEREBY

Abstract: A method and apparatus for **manufacturing** board- and bar-like products from a thermoplastic or a fibrous material having thermoplastic as the binding agent, and a product **manufactured** thereby. The raw material used is primarily recycled material which is dry-comminuted to a particle size which is optimal considering the strength and rigidity of the product. The pulp still warm from the comminuting is formed by means of vacuum into a mat of even thickness. It is heated rapidly to the molding temperature by means of hot gas, by using the countercurrent principle, and is thereafter **compressed** into an endless blank. This blank is molded by extrusion or **compression** into a product, which is cooled immediately.

Classifications:
International (IPC 8-9): B27N3/00 B27N3/08 B27N3/10 B27N3/28 B29B17/00 B29B17/04 B29C43/22 B29C47/36 B29C47/54 B29C70/04 B29C70/50 B30B11/22 B30B11/26
International (IPC 1-7): B27N3/04 B29B17/00 B29C67/12 B29C67/14 B29C70/00 B29K105/12 B29L7/00 B32B23/08 B32B5/16
CPC: B27N3/007 B27N3/10 B27N3/28 B29B17/0026 B29B17/0412 B29C43/22 B29C48/06 B29C48/287 B29C48/2888 B29C48/475 B29C70/504 B29K2105/26 B30B11/26 Y02W30/62



Family:

Publication number	Publication date	Application number	Application date
AU199454224 A1	19940608	AU19940054224	19931108
EP0674569 A1	19951004	EP19930924625	19931108
FI925063 A	19940510	FI19920005063	19921109
FI925063 A0	19921109	FI19920005063	19921109
FI92566 B	19940831	FI19920005063	19921109
FI92566 C	19941212	FI19920005063	19921109
WO9411168 A1	19940526	WO1993FI00460	19931108

Priority:
FI19920005063 19921109 WO1993FI00460 19931108

Probable Assignee: RAUTAVALTA JUHANI
Assignee(s): (std): JUHANI RAUTAVALTA ; RAUTAVALTA JUHANI
Inventor(s): (std): RAUTAVALTA JUHANI
Inventor(s): JUHANI RAUTAVALTA
Designated states: AT AU BE CA CH DE DK ES FR GB GR HU IE IT JP LU MC NL NO PT SE US

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU199454224 A1	19940608	LSPB	+	published / reissued	
EP0674569 A1	19951004	LSPB	+	published / reissued	
EP0674569 A1	19951004	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 19950609
EP0674569 A1	19951004		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AT BE DE DK FR GB NL SE
EP0674569 A1	19961120	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 19961008

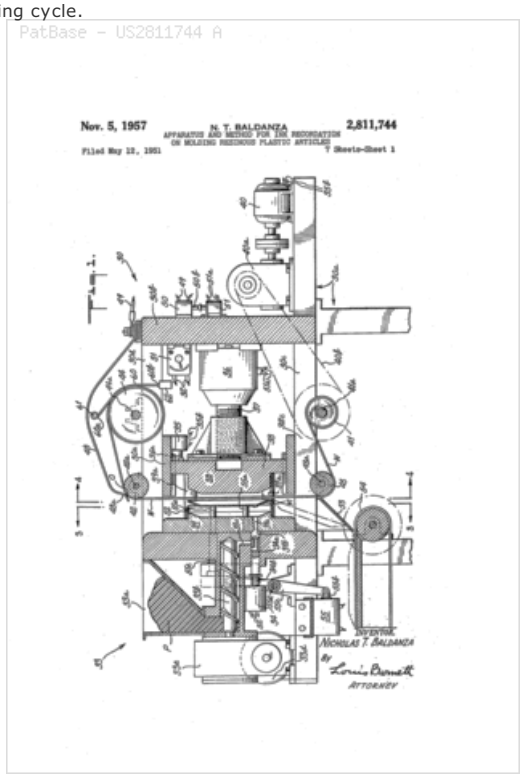
EP0674569 A1	19971015	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	Effective date: 19970419
FI925063 A	19940510	LSPB	+	published / reissued	
FI925063 A	19940802	LSPB	BB	PUBLICATION OF EXAMINED APPLICATION	
FI92566 B	19940831	LSPB	+	published / reissued	
FI92566 B	20121109	PEXP		Calculated Patent Term Expiry	
FI92566 C	19941212	LSGT	+	granted / extensions (spc, cpc, pte)	
FI92566 C	20121109	PEXP		Calculated Patent Term Expiry	
WO9411168 A1	19940526	LSPB	+	published / reissued	
WO9411168 A1	19940526		+AK	DESIGNATED STATES	Kind code of Ref document: A1 Country of Ref document: AU CA HU JP NO US
WO9411168 A1	19940526		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: A1 Country of Ref document: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
WO9411168 A1	19940721		DFPE	REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH MONTH FROM PRIORITY DATE (PCT APPLICATION FILED BEFORE 20040101)	
WO9411168 A1	19940831		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	
WO9411168 A1	19950609	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 1993924625 Country of Ref document: EP
WO9411168 A1	19951004	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: 1993924625 Country of Ref document: EP
WO9411168 A1	19960709	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: CA
WO9411168 A1	19970419	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	Ref document number: 1993924625 Country of Ref document: EP

67) Family number: 22233520 (US2811744 A)

Title: APPARATUS AND METHOD FOR INK RECORDATION ON MOLDING RESINOUS PLASTIC ARTICLES

Abstract: (Claim 1) 1. In the **manufacture** of resinous plastic molded articles, the steps of inserting sheet material carrying transferable ink recordations thereon as successive portions of a continuous web between split dies which form when closed a cavity with said ink recordations spread otit in a predetermined alignment with respect to a wall of said cavity, forcing under presstire flowing resinous plastic material in a heated state into the cavity and against said ink recordations for fusin.- and baldng the latter in an nmodified _confl.-uration to said resinous plastic molded article prior to and during solidification thereof, continuing said steps in successive cycles of operation, and detaching each of said molded articles with a portion of the sheet material adhering thereto ftom the web during each operating cycle.

Classifications:
International (IPC 8-9): B29C45/14 B41F19/00 B41F19/08
International (IPC 1-7): B29C17/07 B29D7/22 B29F1/10 B44C1/18 B44C3/00 B65C9/26
CPC: B29C2045/14532 B29C2045/14704 B29C2045/14713 B29C45/14024 B29C45/14467 B29C45/14688 B29C45/14778 B29C45/14827 B41F19/08 Y10S425/224 Y10T156/1707
US: 101/32 156/238 156/541 264/132 264/153 264/247 264/254 264/259 425/102 425/122 425/127 425/298 425/543 425/DIG.224



Family:

Publication number	Publication date	Application number	Application date
US2811744 A	19571105	US19510225956	19510512

Priority:
US19510225956 19510512

Probable Assignee: CURTISS WRIGHT CORP
Assignee(s): (std): CURTISS WRIGHT CORP
Inventor(s): (std): BALDANZA NICHOLAS T

Legal status (INPADOC)

View legal status timeline

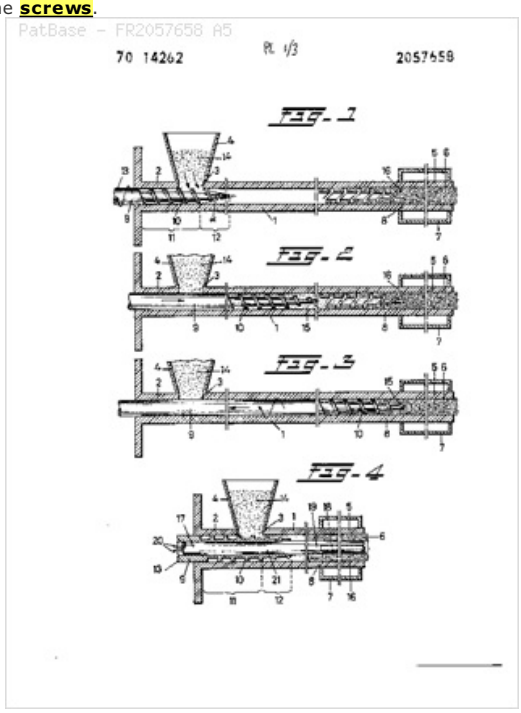
Patent	Date recorded	Event group	Code	Event	Details
US2811744 A	19571105	LSGT	+	granted / extensions (spc, cpc, pte)	

68) Family number: 175304 (FR2057658 A5)

Title: TWIN-**SCREW** EXTRUSION PRESS FOR POLYMERS - WITH HIGH MOL WT

Abstract: Twin-**screw** extrusion press for polymers with high mol wt. The materials are fed to a pump chamber, in which one or more pump **screws** are arranged and in which the material is **compressed** and softened by heating. The material is then pressed as a finished product through a mould aperture. The pump chamber is tubular and has no heating, the heat for softening the material being applied only after the material has left the **screws**.

Classifications:
International (IPC 8-9): B29C47/00 B29C47/06 B29C47/36 B29C47/38 B29C47/54 B29C48/395
International (IPC 1-7): B29B1/10 B29F3/00 B29F3/01 B29F3/014 B29F3/02 B29F3/08
CPC: B29C48/022 B29C48/03 B29C48/09 B29C48/21 B29C48/335 B29C48/395 B29C48/51



Family:

Publication number	Publication date	Application number	Application date
CH523139 A	19720531	CH19700005867	19700420
DE2018596 A1	19710311	DE19702018596	19700417
FR2057658 A5	19710521	FR19700014262	19700420
NL6913102 A	19710302	NL19690013102	19690827

Priority:
NL19690013102 19690827 NL19696913102 19690827

Probable Assignee: JAARSVELD W

Assignee(s): (std): HANSON H ; HANSON HENRICUS ; HANSON HENRICUS FERDINAND ; JAARSVELD W ; JAARSVELD WILLEM ; JAARSVELD WILLEM GERARDUS JOHA

Assignee(s): JAARSVELD WILLEM GERARDUS JOHANNES

Inventor(s): (std): GERARDUS JOHANNES JAARSVELD WI ; HENRICUS FERDINAND HANSON

Inventor(s): FERDINAND HANSON HENRICUS ; JOHANNES JAARSVELD WILLEM GERARDUS

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
CH523139 A	19720531	LSGT	+	granted / extensions (spc, cpc, pte)	
CH523139 A	19800215	LSLE	-PL	PATENT CEASED	
CH523139 A	19900420	PEXP		Calculated Patent Term Expiry	
DE2018596 A1	19710311	LSPB	+	published / reissued	
DE2018596 A1	19820527	LSRV	-8131	REJECTION	
FR2057658 A5	19710521	LSGT	+	granted / extensions (spc, cpc, pte)	
FR2057658 A5	19800222	LSLE	-ST	NOTIFICATION OF LAPSE	
FR2057658 A5	19900420	PEXP		Calculated Patent Term Expiry	
NL6913102 A	19710302	LSPB	+	published / reissued	

69) Family number: 71678087 (US2018310590 AA)

Title: HIGH-PROTEIN OILCAKE-BASED NUTRITIONAL COMPOSITION

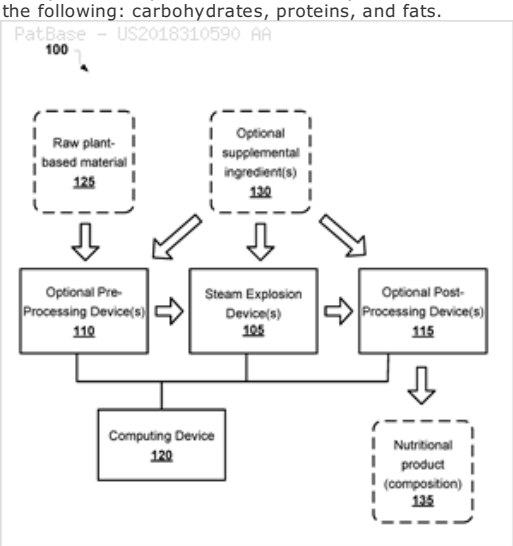
Abstract: This disclosure is concerned with a nutritional product, nutritional composition, and methods for **manufacturing** thereof. The nutritional product and composition are protein rich substances which include oilcake produced by a process involving steam explosion of raw oilcake such that dry matter left after oil extraction from sunflower seeds or other oily crops or nuts. According to one aspect of this disclosure, there is provided a nutritional product which is suitable for human consumption and comprises a high-protein main ingredient and a supplemental ingredient. The high-protein main ingredient includes sterile and palatable matter such as processed oilcake produced by steam explosion of substantially water-insoluble matter. The optional supplemental ingredient includes one or more of the following: carbohydrates, proteins, and fats.

Classifications:

International (IPC 8-9): A21D13/42 A21D13/44 A21D13/80 A21D17/00 A23J1/00 A23J1/14 A23J3/14 A23J3/16 A23J3/22 A23J3/26 A23J3/32 A23J3/34 A23K10/37 A23K10/38 A23K40/25 A23L11/00 A23L11/30 A23L19/00 A23L23/00 A23L25/00 A23L29/206 A23L33/105 A23L5/20 A23L7/109 A23L7/135 A23P30/20 A23P30/34

CPC: A23J1/14 A23J3/14 A23L29/212 A23P30/20 A23V2002/00 A23V2200/30 A23V2300/16 A23J1/005 A23J1/006 A23J1/008 A23J1/144 A23J1/148 A23J3/16 A23J3/227 A23J3/26 A23J3/32 A23J3/346 A23J3/347 A23J3/348 A23K10/37 A23K10/38 A23K40/25 A23L11/05 A23L11/07 A23L11/31 A23L11/32 A23L11/33 A23L25/30 A23L33/185 A23L5/21 A23L5/23 A23L5/25 A23P30/34 A23V2200/262 A23V2200/264 A23V2250/548 A23V2250/5488 A23V2300/18 A23V2300/24 A23V2300/28 A21D13/42 A21D13/44 A21D13/80 A21D17/008 A23L19/07 A23L23/00 A23L33/105 A23L7/109 A23L7/135 A21D13/064 A21D2/266 A23J1/001 A23J1/12 A23L33/22

US: 1/1 426/656



Family:

Publication number	Publication date	Application number	Application date
CA3062155 AA	20191031	CA20183062155	20180430
CN110678083 A	20200110	CN201880028965	20180430
EP3618638 A1	20200311	EP20180794271	20180430
EP3618638 A4	20210113	EP20180794271	20180430
IN201917045884 A	20191213	IN201917045884	20191112
US2018310590 AA	20181101	US20180965992	20180430
US2019183155 AA	20190620	US20190285223	20190226
US2019223475 AA	20190725	US20190370896	20190330
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US2020060308 AA	20200227	US20190671342	20191101
US2020260758 AA	20200820	US20200861600	20200429
WO18204216 A1	20181108	WO2018US30084	20180430
WO20028446 A1	20200206	WO2019US44258	20190731
WO20028446 A8	20201001	WO2019US44258	20190731

Priority:

US20170492367P 20170501
US20180713251P 20180801
US20190370896 20190330
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WO2018US30084 20180430
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US20190853111P 20190527
US20200861600 20200429

Probable Assignee: USARIUM INC

Assignee(s): (std): USA RIUM INC

Assignee(s): MANCHULIANTSAU ALEH ; TKACHEVA ANASTASIA

Inventor(s): (std): MANCHULIANTSAU ALEH ; TKACHEVA ANASTASIA

Agent(s): K AND L GATES LLP; KHAYET GEORGIY; RIDOUT AND MAYBEE LLP; SOVESKY ROBERT J ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
CA3062155 AA	20191031	LSPB	+	published / reissued	
CN110678083 A	20200110	LSPB	+	published / reissued	
CN110678083 A	20200110	LSPB	PB01	PUBLICATION	
CN110678083 A	20200110	LSPB	PB01	公开 (The	Text: 公开 (Disclosure)

				publication of application)	
CN110678083 A	20201030	LSDW	-WD01	INVENTION PATENT APPLICATION DEEMED WITHDRAWN AFTER PUBLICATION	
CN110678083 A	20201030	LSDW	-WD01	发明专利申请公布后的视为撤回 (Deemed withdrawal of application for invention after its publication)	Text: 发明专利申请公布后的视为撤回 (After the publication of the patent application for invention shall be deemed to have been withdrawn)
EP3618638 A1	20200311	LSPB	+	published / reissued	
EP3618638 A1	20200311	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20191115
EP3618638 A1	20200311		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP3618638 A1	20200311		+AV	REQUEST FOR VALIDATION OF THE EUROPEAN PATENT	Country of Ref document: KH MA MD TN
EP3618638 A1	20200311		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Country of Ref document: BA ME
EP3618638 A1	20200805		DAV	REQUEST FOR VALIDATION OF THE EUROPEAN PATENT (DELETED)	
EP3618638 A1	20200805		DAX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT (DELETED)	
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EP3618638 A4	20210113		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: A23J 1/14 20060101AFI20201204BHEP ClassificationScheme: IPC
EP3618638 A4	20210113		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: A23P 30/20 20160101ALI20201204BHEP ClassificationScheme: IPC
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US10645950 BB	20200512	LSGT	+	granted / extensions (spc, cpc, pte)	
US10645950 BB	20380430	PEXP		Calculated Patent Term Expiry	
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US2018310590 AA	20181101	LSPB	+	published / reissued	
US2018310590 AA	20181202		RSP4	Response to Non-Final Office Action Entered and Forwarded to Examiner	

US2018310590 AA	20190206		FRM1	Final Rejection Mailed	
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US2018310590 AA	20190517		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: DOCKETED NEW CASE - READY FOR EXAMINATION
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US2018310590 AA	20190910		RSP4	Response to Non-Final Office Action Entered and Forwarded to Examiner	
US2018310590 AA	20190910		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: RESPONSE TO NON-FINAL OFFICE ACTION ENTERED AND FORWARDED TO EXAMINER
US2018310590 AA	20191121		FRM1	Final Rejection Mailed	
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US2018310590 AA	20200323		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: NON FINAL ACTION MAILED
US2018310590 AA	20200620		RSP4	Response to Non-Final Office Action Entered and Forwarded to Examiner	
US2018310590 AA	20200620		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: RESPONSE TO NON-FINAL OFFICE ACTION ENTERED AND FORWARDED TO EXAMINER
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US2019183155 AA	20190226	LSAS	AS	ASSIGNMENT	Effective date: 20190222 Owner: USARIUM INC., CALIFORNIA OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:MANCHULIANTSAU, ALEH;TKACHEVA, ANASTASIA;REEL/FRAME:048432/0078 PartyType: owner
US2019183155 AA	20190604		FRM1	Final Rejection Mailed	
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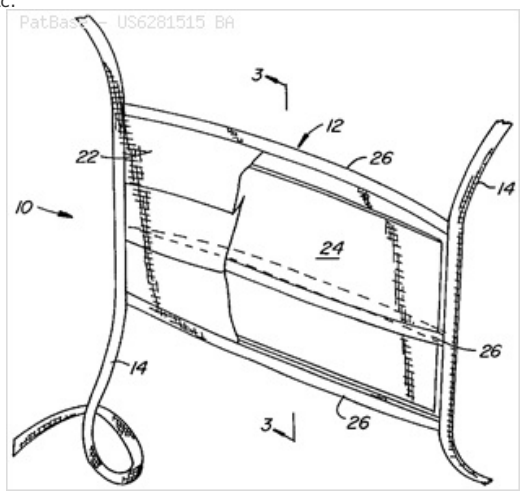
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US2019183155 AA	20190924		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: NON FINAL ACTION MAILED
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US2019223475 AA	20190330	LSAS	AS	ASSIGNMENT	Effective date: 20190222 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:MANCHULIANTSAU, ALEH;TKACHEVA, ANASTASIA;REEL/FRAME:048747/0787 Owner: USARIUM INC., CALIFORNIA PartyType: owner
US2019223475 AA	20190701		RFE1	Docketed New Case - Ready for Examination	
US2019223475 AA	20190701		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: DOCKETED NEW CASE - READY FOR EXAMINATION
US2019223475 AA	20190725	LSPB	+	published / reissued	
US2019223475 AA	20200102	LSES	NFA1	Non Final Action Mailed	
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US2019223475 AA	20200312	LSES	NFA1	Non Final Action Mailed	
US2019223475 AA	20201006	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2019223476 AA	20190330	LSAS	AS	ASSIGNMENT	Effective date: 20190222 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:MANCHULIANTSAU, ALEH;TKACHEVA, ANASTASIA;REEL/FRAME:048747/0806 Owner: USARIUM INC., CALIFORNIA PartyType: owner
US2019223476 AA	20190701		RFE1	Docketed New Case - Ready for Examination	
US2019223476 AA	20190701		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: DOCKETED NEW CASE - READY FOR EXAMINATION
US2019223476 AA	20190725	LSPB	+	published / reissued	
US2020060308 AA	20200221		FRM1	Final Rejection Mailed	
US2020060308 AA	20200227	LSPB	+	published / reissued	
US2020060308 AA	20200304	LSAS	AS	ASSIGNMENT	Effective date: 20200303 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:MANCHULIANTSAU, ALEH;TKACHEVA, ANASTASIA;REEL/FRAME:052004/0046

					Owner: USARIUM INC., CALIFORNIA PartyType: owner
US2020060308 AA	20200422	LSGT	PAT1	Patented Case	
US2020060308 AA	20200422	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2020260758 AA	20200625	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:MANCHULIANTSAU, ALEH;TKACHEVA, ANASTASIA;REEL/FRAME:053037/0836 Effective date: 20200303 Owner: USARIUM INC., CALIFORNIA PartyType: owner
US2020260758 AA	20200730	LSES	NFA1	Non Final Action Mailed	
US2020260758 AA	20200820	LSPB	+	published / reissued	
US2020260758 AA	20201105		FRM1	Final Rejection Mailed	
WO18204216 A1	20181108	LSPB	+	published / reissued	
WO18204216 A1	20181219		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Kind code of Ref document: A1 Ref document number: 18794271 Country of Ref document: EP
WO18204216 A1	20191031	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 3062155 Country of Ref document: CA
WO18204216 A1	20191105	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO18204216 A1	20191206	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Effective date: 20191202 Ref document number: 2018794271 Country of Ref document: EP
WO20028446 A1	20200206	LSPB	+	published / reissued	
WO20028446 A1	20200318		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Kind code of Ref document: A1 Ref document number: 19845188 Country of Ref document: EP

70) Family number: 31020537 (US6281515 BA)

Title: LIGHTWEIGHT RADIATION PROTECTIVE GARMENTS

Abstract: A lightweight, breathable garment which has radiopaque qualities and a method for making the radiopaque garment. In a preferred embodiment, a lightweight fabric, such as a cloth surgical mask liner (24) or an entire surgical mask (10), is impregnated with a lightweight radiopaque compound, such as a barium sulfate compound, to impart radiopaque qualities. Impregnation of the lightweight radiopaque compound can be performed in any number of ways including soaking the fabric in a solution containing the lightweight radiopaque compound, using the fabric as a filter in a passing solution of the lightweight radiopaque compound, placing the fabric in a reaction chamber between reagent solutions whose interaction will form the lightweight radiopaque compound and impregnating the fabric with one reagent and then exposing it to a complementary reagent whose reaction with the first reagent will form a lightweight radiopaque compound. In alternative embodiments, radiopaque qualities can be imparted to garments by using one or more sheets of lightweight radiopaque material, such as aluminum, or weaving radiopaque metal or metallized threads into the garment. While a surgical mask is provided as one example, the principles of the invention can also be applied to a broad range of other items including surgical hoods, hospital gowns, gloves, partitions, drapes etc.



Classifications:

International (IPC 8-9): A41D10/00 A41D13/00 A41D13/12 A41D19/00 A41D31/00 A41D31/02 A42B1/04 A61B A61B6/10 A61B6/12 A61K49/04 A61L29/18 A61N5/00 A62B17/04 B29C47/00 B32B25/12 B32B27/12 B32B27/18 B32B5/02 B32B5/26 B65D25/00 B65D25/34 B65D79/00 B65D79/02 B65D81/30 C08J5/18 C08K3/00 C08K3/08 C08K3/16 C08K3/22 C08K3/30 C08K3/34 C08K3/38 C08K5/00 C08K7/00 C08L101/00 C08L101/12 C11D1/02 C11D17/00 C11D3/02 C11D3/18 C11D3/20 C11D3/36 C11D3/37 C11D3/50 D06M11/00 D06M11/56 D06M11/83 D06M17/00 D06N3/00 F41H1/02 F41H5/04 F42B39/14 G01N23/00 G01N23/04 G01N23/06 G01N23/10 G01T1/16 G01V5/00 G21C11/00 G21C5/00 G21F G21F1/00 G21F1/10 G21F1/12 G21F3/00 G21F3/02 G21F3/025 G21F3/03 G21F3/04 G21K1/10

International (IPC 1-7): A41D A41D0/00 A41D13/00 A41D13/12 A41D31/00 A41D31/02 A61B6/10 A61N5/00 A62B17/04 B21F3/02 D06M11/55 F41H1/02 G21F1/10 G21F3/00 G21F3/02 G21F3/025 G21F3/03

CPC: A41D13/1115 A41D13/1184 A41D13/12 G21F3/02 B32B27/12 B32B27/18 B32B5/26 D06M17/00 D06N3/0056 F41H1/02 F41H5/0471 G21F1/10 G21F1/00 G21F5/00 C08J5/18 A41D13/11 A41D13/1209 G01V5/0008 G21F1/02 Y10T442/2025

US: 2/114 2/114S 2/83 2/83P 250/515.1 250/516.1 250/516.100 250/516.100P 250/516.100S 250/519.1 250/519.100P 264/176.1 264/176.100S 442/62 442/62S

Family:

Publication number	Publication date	Application number	Application date
AU200012386 A1	20000626	AU20000012386	19991026
AU200012386 A5	20000626	AU20000012386	19991026
AU769239 B2	20040122	AU20000012386	19991026
AU2003268544 AA	20040329	AU20030268544	20030905
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CA2353957 AA	20010606	CA19992353957	19991026
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CA2591994 AA	20070620	CA20052591994	20051216
CA2591994 C	20151215	CA20052591994	20051216
CN1689120 A	20051026	CN20038024108	20030905
CN1689120 B	20120509	CN20038024108	20030905
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HK1085046 A1	20060811	HK20060105020	20060426
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RU2005110425 A	20051010	RU20050110425	20030905
RU2320037 C2	20080320	RU20050110425	20030905

US6281515 BA	20010828	US19980206671	19981207	
US2002043631 AA	20020418	US20010940681	20010827	
US6459091 BA	20021001	US20010940681	20010827	
US2003010939 AA	20030116	US20020238160	20020909	
US6828578 BB	20041207	US20020238160	20020909	
US2004004196 AA	20040108	US20030620954	20030716	
US6841791 BB	20050111	US20030620954	20030716	
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US7476889 BB	20090113	US20040019952	20041220	
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US8334524 BB	20121218	US20090351786	20090109	
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WO06069007 A2	20060629	WO2005US45968	20051216	
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Priority:

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US20040019952 20041220 WO2005US28099 20050905 WO2005US45968 20051216
US20080125304 20080522 US20090351786 20090109

Probable Assignee: MERIDIAN RESEARCH AND DEVELOPMENT

Assignee(s): (std)**:** DEMEO RONALD ; KUCHEROVSKY JOSEPH ; KURUPATHI AMIT ; MERIDIAN RES AND DEV ; MERIDIAN RES AND DEV INC ; MERIDIAN RES AND DEVELOPMENT ; MERIDIAN RESEARCH AND DEV ; MERIDIAN RESEARCH AND DEVELOPMENT ; MERIDIAN RISERCH EHND DIVELOPM

Assignee(s): BENEDETTO MARCUS D ; CARESTREAM HEALTH INC ; DEMEO RONALD M D ; MERIDIAN RESEARCH AND DEVELOPMENT INC ; MERIDIAN RESEARCH AND DEVELOPMENT P O BOX 21026 FORT ; MERIDIAN RISERCH EHND DIVELOPMENT

Inventor(s): (std)**:** AMIT KURUPATHI ; BENEDETTO MARCUS ; BENEDETTO MARCUS D ; DEMEO RONAL D ; DEMEO RONALD F ; DEMEO RONALD M D ; JOSEPH KUCHEROVSKY ; KUCHEROVSKI DZHOZEF ; KUCHEROVSKY JOSEPH ; KURUPATHI AMIT ; RONALD DEMEO

Inventor(s): DEMEO RONAL'D ; DEMEO RONALD M ; MARCUS BENEDETTO ; MARCUS D BENEDETTO ; RONALD M D DEMEO

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Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU200012386 A1	20000626	LSPB	+	published / reissued	
AU2003268544 AA	20040329	LSPB	+	published / reissued	
AU2003268544 BB	20081113	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2003268544 BB	20090312	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2003268544 BB	20230905	PEXP		Calculated Patent Term Expiry	
AU769239 B2	20040122	LSGT	+	granted / extensions (spc, cpc, pte)	
AU769239 B2	20040520	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU769239 B2	20191026	PEXP		Calculated Patent Term Expiry	
AU769239 B2	20191114	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
CA2353957 AA	20010606	LSPB	+	published / reissued	

CA2353957 AA	20010606	LSES	+EEER	EXAMINATION REQUEST	
CA2353957 C	20050816	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2353957 C	20191026	PEXP		Calculated Patent Term Expiry	
CA2353957 C	20191230	LSLE	-MKEX	EXPIRY	Effective date: 20191028
CA2498312 AA	20050309	LSPB	+	published / reissued	
CA2498312 AA	20080801	LSES	+EEER	EXAMINATION REQUEST	
CA2498312 C	20121127	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2498312 C	20230905	PEXP		Calculated Patent Term Expiry	
CA2591994 AA	20070620	LSPB	+	published / reissued	
CA2591994 AA	20101112	LSES	+EEER	EXAMINATION REQUEST	
CA2591994 C	20151215	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2591994 C	20251216	PEXP		Calculated Patent Term Expiry	
CN101385091 A	20090311	LSPB	+	published / reissued	
CN101385091 A	20090311	LSPB	+C06	PUBLICATION	
CN101385091 A	20090506		C10	ENTRY INTO SUBSTANTIVE EXAMINATION	
CN101385091 B	20121226	LSGT	+	granted / extensions (spc, cpc, pte)	
CN101385091 B	20121226	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN101385091 B	20251216	PEXP		Calculated Patent Term Expiry	
CN1689120 A	20051026	LSPB	+	published / reissued	
CN1689120 A	20051026	LSPB	+C06	PUBLICATION	
CN1689120 A	20051221		C10	ENTRY INTO SUBSTANTIVE EXAMINATION	
CN1689120 A	20060811		REG	REFERENCE TO A NATIONAL CODE	Ref country code: HK Ref document number: 1085046 Ref legal event code: DE Country of Ref document: HK
CN1689120 A	20120420		REG	REFERENCE TO A NATIONAL CODE	Ref country code: HK Ref document number: 1085046 Ref legal event code: WD Country of Ref document: HK
CN1689120 B	20120509	LSGT	+	granted / extensions (spc, cpc, pte)	
CN1689120 B	20120509	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN1689120 B	20230905	PEXP		Calculated Patent Term Expiry	
EP1141973 A1	20011010	LSPB	+	published / reissued	
EP1141973 A1	20011010	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20010629
EP1141973 A1	20011010		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
EP1141973 A1	20011010		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Text: AL PAYMENT 20010629;LT PAYMENT 20010629;LV PAYMENT 20010629;MK PAYMENT 20010629;RO PAYMENT 20010629;SI PAYMENT 20010629
EP1547096 A2	20050629	LSPB	+	published / reissued	
EP1547096 A2	20050629	LSES	+17P	REQUEST FOR	Effective date: 20050409

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EP1547096 A2	20050629		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A2 Country of Ref document: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR
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EP1547096 A2	20050803	LSAS	RAP3	PARTY DATA CHANGED (APPLICANT DATA CHANGED OR RIGHTS OF AN APPLICATION TRANSFERRED)	Owner: MERIDIAN RESEARCH AND DEVELOPMENT PartyType: owner
EP1547096 A2	20051021		REG	REFERENCE TO A NATIONAL CODE	Ref country code: HK Ref document number: 1073922 Ref legal event code: DE Country of Ref document: HK
EP1547096 A2	20051228		DAX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT (DELETED)	
EP1547096 A4	20100414	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	Effective date: 20100317
EP1547096 A4	20100818	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 20100714
EP1547096 A4	20130328	LSWD	REG	REFERENCE TO A NATIONAL CODE	Ref country code: HK Ref document number: 1073922 Ref legal event code: WD Country of Ref document: HK
EP1547096 A4	20171004		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: F41H 1/02 20060101ALI20170829BHEP
EP1547096 A4	20171004		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: B32B 25/12 20060101ALI20170829BHEP ClassificationScheme: IPC
EP1547096 A4	20171004		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: D06N 3/00 20060101ALI20170829BHEP ClassificationScheme: IPC
EP1547096 A4	20171004		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: G21F 3/00 20060101AFI20170829BHEP ClassificationScheme: IPC
EP1547096 A4	20171004		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: G21F 1/10 20060101ALI20170829BHEP ClassificationScheme: IPC
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EP1547096 A4	20171004		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: B32B 27/18 20060101ALI20170829BHEP
EP1547096 A4	20171004		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: F41H 5/04 20060101ALI20170829BHEP
EP1547096 A4	20171004		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: B32B 27/12 20060101ALI20170829BHEP ClassificationScheme: IPC
EP1547096 A4	20171004		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: B32B 5/26 20060101ALI20170829BHEP ClassificationScheme: IPC
EP1547096 A4	20171004		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: D06M 17/00 20060101ALI20170829BHEP
EP1547096 A4	20171129	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	Effective date: 20171030
EP1547096 B1	20180411	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1547096 B1	20180411		+AK	DESIGNATED	Kind code of Ref document: B1

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EP1547096 B1	20180413	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: EP Ref country code: CH
EP1547096 B1	20180415	LSNP	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20180415 Ref country code: AT Ref legal event code: REF Ref document number: 988833 Kind code of Ref document: T Country of Ref document: AT
EP1547096 B1	20180502	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: FG4D Ref country code: IE
EP1547096 B1	20180509	LSPB	REG	REFERENCE TO A NATIONAL CODE	Ref document number: 60351113 Ref legal event code: R096 Ref country code: DE Country of Ref document: DE
EP1547096 B1	20180815		REG	REFERENCE TO A NATIONAL CODE	Effective date: 20180411 Ref country code: NL Ref legal event code: MP
EP1547096 B1	20180928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20180411 Country of Ref document: NL
EP1547096 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20180411 Country of Ref document: FI
EP1547096 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20180411 Country of Ref document: ES
EP1547096 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20180411 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: SE
EP1547096 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20180711 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: BG
EP1547096 B1	20181130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20180712 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: GR
EP1547096 B1	20181215	LSRV	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20180411 Ref country code: AT Kind code of Ref document: T Ref document number: 988833 Ref legal event code: MK05 Country of Ref document: AT
EP1547096 B1	20181231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20180813 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: PT
EP1547096 B1	20190114	LSRE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: DE Ref document number: 60351113 Ref legal event code: R097 Country of Ref document: DE
EP1547096 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20180411 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: AT
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EP1547096 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20180411 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: RO
EP1547096 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20180411 Country of Ref document: SK
EP1547096 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20180411 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: CZ
EP1547096 B1	20190228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20180411 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: IT
EP1547096 B1	20190320	LSGT	+26N	NO OPPOSITION FILED	Effective date: 20190114
EP1547096 B1	20190430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20180411 Country of Ref document: MC
EP1547096 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 16 Payment date: 20190320 Country of Ref document: DE
EP1547096 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190311 Year of fee payment: 16 Country of Ref document: GB
EP1547096 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 16 Payment date: 20190307 Country of Ref document: FR
EP1547096 B1	20190430	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: PL
EP1547096 B1	20190531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20180411 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: SI
EP1547096 B1	20190612	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: MM Ref country code: BE Effective date: 20180930
EP1547096 B1	20190626	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: IE Ref legal event code: MM4A
EP1547096 B1	20190628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20180905 Country of Ref document: LU
EP1547096 B1	20190731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20180905 Country of Ref document: IE

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EP1547096 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20180930 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: CH
EP1547096 B1	20190830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20180930 Country of Ref document: LI
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EP1547096 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190819 Year of fee payment: 17 Country of Ref document: FR
EP1547096 B1	20191231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 17 Payment date: 20190827 Country of Ref document: GB
EP1547096 B1	20200331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20180411 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: TR
EP1547096 B1	20200529	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20030905 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO Country of Ref document: HU
EP1547096 B1	20200630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20180411 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: CY
EP1547096 B1	20230905	PEXP		Calculated Patent Term Expiry	
EP1833566 A2	20070919	LSPB	+	published / reissued	
EP1833566 A2	20070919	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20070719
EP1833566 A2	20070919		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A2 Country of Ref document: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR
EP1833566 A2	20070919		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Country of Ref document: AL BA HR MK YU
EP1833566 A2	20080326		DAX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT (DELETED)	
EP1833566 A2	20081105	LSES	R17D	DEFERRED SEARCH REPORT PUBLISHED (CORRECTED)	Effective date: 20080925
EP1833566 A2	20090121		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: G21C 11/00 20060101AFI20081212BHEP
EP1833566 A2	20090121		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED	ClassificationScheme: IPC ClassificationSymbol: G21C 5/00 20060101ALI20081212BHEP

EP1833566 A2	20090121		RIC1	BEFORE GRANT INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: G21F 1/00 20060101ALI20081212BHEP ClassificationScheme: IPC
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HK1073922 A1	20051021	LSPB	+	published / reissued	
HK1073922 A3	20051021	LSPB	+	published / reissued	
HK1085046 A1	20060811	LSPB	+	published / reissued	
HK1085046 A3	20060811	LSPB	+	published / reissued	
IL167330 A1	20110131	LSPB	+	published / reissued	
IL167330 A1	20110630	LSGT	+FF	PATENT GRANTED	
IL167330 A1	20130829	LSFE	+KB	PATENT RENEWED	
IL167330 A1	20180131	LSFE	+KB	PATENT RENEWED	
IN00555CN2005 A	20070622	LSPB	+	published / reissued	
IN242574 B	20100910	LSGT	+	granted / extensions (spc, cpc, pte)	
IN242574 B	20210706	PEXP		Calculated Patent Term Expiry	
IN256823 B	20130802	LSGT	+	granted / extensions (spc, cpc, pte)	
IN256823 B	20250405	PEXP		Calculated Patent Term Expiry	
JP2002532634 T2	20021002	LSPB	+	published / reissued	
JP2002532634 T2	20061012	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	Effective date: 20061011 Text: JAPANESE INTERMEDIATE CODE: A621
JP2002532634 T2	20091222	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Text: JAPANESE INTERMEDIATE CODE: A131 Effective date: 20091221
JP2002532634 T2	20100519	LSRV	-A02	DECISION OF REFUSAL	Effective date: 20100518 Text: JAPANESE INTERMEDIATE CODE: A02
JP2005538356 T2	20051215	LSPB	+	published / reissued	
JP2005538356 T2	20060829	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	Effective date: 20060828 Text: JAPANESE INTERMEDIATE CODE: A621
JP2005538356 T2	20090402	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Effective date: 20090401 Text: JAPANESE INTERMEDIATE CODE: A131
JP2005538356 T2	20090624		A601	WRITTEN REQUEST FOR EXTENSION OF TIME	Text: JAPANESE INTERMEDIATE CODE: A601 Effective date: 20090623
JP2005538356 T2	20090701		A602	WRITTEN PERMISSION OF EXTENSION OF TIME	Text: JAPANESE INTERMEDIATE CODE: A602 Effective date: 20090630
JP2005538356 T2	20090725		A601	WRITTEN REQUEST FOR EXTENSION OF TIME	Text: JAPANESE INTERMEDIATE CODE: A601 Effective date: 20090724
JP2005538356 T2	20090803		A602	WRITTEN PERMISSION OF EXTENSION OF TIME	Effective date: 20090731 Text: JAPANESE INTERMEDIATE CODE: A602
JP2005538356 T2	20090829		A601	WRITTEN REQUEST FOR EXTENSION OF TIME	Effective date: 20090828 Text: JAPANESE INTERMEDIATE CODE: A601
JP2005538356 T2	20090907		A602	WRITTEN PERMISSION OF EXTENSION OF TIME	Effective date: 20090904 Text: JAPANESE INTERMEDIATE CODE: A602
JP2005538356 T2	20091001	LSRE	A521	WRITTEN AMENDMENT	Effective date: 20090930 Text: JAPANESE INTERMEDIATE CODE: A523
JP2005538356 T2	20100902	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Effective date: 20100901 Text: JAPANESE INTERMEDIATE CODE: A131

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JP2005538356 T2	20110126		A601	WRITTEN REQUEST FOR EXTENSION OF TIME	Effective date: 20110125 Text: JAPANESE INTERMEDIATE CODE: A601
JP2005538356 T2	20110202		A602	WRITTEN PERMISSION OF EXTENSION OF TIME	Effective date: 20110201 Text: JAPANESE INTERMEDIATE CODE: A602
JP2005538356 T2	20110302	LSRE	A521	WRITTEN AMENDMENT	Text: JAPANESE INTERMEDIATE CODE: A523 Effective date: 20110301
JP2005538356 T2	20110705	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Effective date: 20110704 Text: JAPANESE INTERMEDIATE CODE: A131
JP2005538356 T2	20110928		A601	WRITTEN REQUEST FOR EXTENSION OF TIME	Effective date: 20110927 Text: JAPANESE INTERMEDIATE CODE: A601
JP2005538356 T2	20111005		A602	WRITTEN PERMISSION OF EXTENSION OF TIME	Effective date: 20111004 Text: JAPANESE INTERMEDIATE CODE: A602
JP2005538356 T2	20111105	LSRE	A521	WRITTEN AMENDMENT	Effective date: 20111104 Text: JAPANESE INTERMEDIATE CODE: A523
JP2005538356 T2	20111123	LSRE	A521	WRITTEN AMENDMENT	Text: JAPANESE INTERMEDIATE CODE: A821 Effective date: 20111104
JP2005538356 T2	20121003	LSRV	-A02	DECISION OF REFUSAL	Text: JAPANESE INTERMEDIATE CODE: A02 Effective date: 20121002
JP2005538356 T2	20130205	LSRE	A521	WRITTEN AMENDMENT	Effective date: 20130204 Text: JAPANESE INTERMEDIATE CODE: A523
JP2005538356 T2	20130327	LSAL	A911	TRANSFER OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	Effective date: 20130326 Text: JAPANESE INTERMEDIATE CODE: A911
JP2005538356 T2	20130514	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Effective date: 20130513 Text: JAPANESE INTERMEDIATE CODE: A131
JP2005538356 T2	20130516	LSRE	A521	WRITTEN AMENDMENT	Text: JAPANESE INTERMEDIATE CODE: A523 Effective date: 20130515
JP2005538356 T2	20130613	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2005538356 T2	20130618	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	Text: JAPANESE INTERMEDIATE CODE: A01 Effective date: 20130617
JP2005538356 T2	20130627	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	Text: JAPANESE INTERMEDIATE CODE: A61 Effective date: 20130620
JP2005538356 T2	20130628	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	Text: JAPANESE INTERMEDIATE CODE: R150
JP2005538356 T2	20130628	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	Ref document number: 5301757 Text: JAPANESE INTERMEDIATE CODE: R150 Country of Ref document: JP
JP2008538136 T2	20081009	LSPB	+	published / reissued	
JP2008538136 T2	20081216	LSRE	A521	WRITTEN AMENDMENT	Effective date: 20081215 Text: JAPANESE INTERMEDIATE CODE: A523
JP2008538136 T2	20081216	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	Effective date: 20081215 Text: JAPANESE INTERMEDIATE CODE: A621
JP2008538136 T2	20111104	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Effective date: 20111102 Text: JAPANESE INTERMEDIATE CODE: A131
JP2008538136 T2	20130205	LSRV	-A02	DECISION OF	Effective date: 20130204

				REFUSAL	Text: JAPANESE INTERMEDIATE CODE: A02
JP2011133487 A2	20110303	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	Text: JAPANESE INTERMEDIATE CODE: A621 Effective date: 20110301
JP2011133487 A2	20110707	LSPB	+	published / reissued	
JP2011133487 A2	20120218	LSRE	A521	WRITTEN AMENDMENT	Effective date: 20120217 Text: JAPANESE INTERMEDIATE CODE: A523
JP2011133487 A2	20130405	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Effective date: 20130404 Text: JAPANESE INTERMEDIATE CODE: A131
JP2011133487 A2	20130626		A601	WRITTEN REQUEST FOR EXTENSION OF TIME	Text: JAPANESE INTERMEDIATE CODE: A601 Effective date: 20130625
JP2011133487 A2	20130701		A602	WRITTEN PERMISSION OF EXTENSION OF TIME	Effective date: 20130628 Text: JAPANESE INTERMEDIATE CODE: A602
JP2011133487 A2	20130817	LSWD	-A761	WRITTEN WITHDRAWAL OF APPLICATION	Effective date: 20130816 Text: JAPANESE INTERMEDIATE CODE: A761
JP5301757 B2	20130620	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5301757 B2	20130620	LSGT	+A01	特許査定書 (Decision of patent grant)	Effective date: 20130617
JP5301757 B2	20130625	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5301757 B2	20130625	LSFE	R100	特許料納付書 (Patent fee payment form)	Effective date: 20130620 Text: 51301291662
JP5301757 B2	20130628	LSGT	+R150	特許証 (Patent certificate)	
JP5301757 B2	20130628	LSGT	+R150	特許証 (Patent certificate)	Effective date: 20130709
JP5301757 B2	20130925	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5301757 B2	20160623	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5301757 B2	20160623	LSFE	R20	特許料納付書 (Patent fee payment form)	Text: 51601269188 Effective date: 20160617
JP5301757 B2	20160628	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
JP5301757 B2	20160628	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	
JP5301757 B2	20160628	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	Effective date: 20160705
JP5301757 B2	20170601	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5301757 B2	20170601	LSFE	R20	特許料納付書 (Patent fee payment form)	Text: 51701111186 Effective date: 20170525
JP5301757 B2	20170606	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
JP5301757 B2	20170606	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	
JP5301757 B2	20170606	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	Effective date: 20170613
JP5301757 B2	20180809	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5301757 B2	20180809	LSFE	R20	特許料納付書 (Patent fee payment form)	Effective date: 20180803 Text: 51801593212
JP5301757 B2	20180814	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
JP5301757 B2	20180814	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	

JP5301757 B2	20180814	LSFE	+R250	年金領収書, 年金領収書(分納) (Pension receipt, annuity receipt (scheduled))	Effective date: 20180821
JP5301757 B2	20190606	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5301757 B2	20190606	LSFE	R20	特許料納付書 (Patent fee payment form)	Effective date: 20190530 Text: 51901143865
JP5301757 B2	20190611	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
JP5301757 B2	20190611	LSFE	+R250	年金領収書, 年金領収書(分納) (Pension receipt, annuity receipt (scheduled))	
JP5301757 B2	20190611	LSFE	+R250	年金領収書, 年金領収書(分納) (Pension receipt, annuity receipt (scheduled))	Effective date: 20190621
JP5301757 B2	20200605	LSFE	R20	特許料納付書 (Patent fee payment form)	Text: 52001144991 Effective date: 20200604
JP5301757 B2	20200608	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
JP5301757 B2	20200608	LSFE	+R250	年金領収書, 年金領収書(分納) (Pension receipt, annuity receipt (scheduled))	Effective date: 20200626
JP5301757 B2	20230905	PEXP		Calculated Patent Term Expiry	
KR101238426 B1	20120127		A107	DIVISIONAL APPLICATION OF PATENT	
KR101238426 B1	20120224	LSES	A201	REQUEST FOR EXAMINATION	
KR101238426 B1	20120413	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR101238426 B1	20121127	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR101238426 B1	20130222	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR101238426 B1	20130305	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101238426 B1	20151230	LSFE	FPAY	ANNUAL FEE PAYMENT	Year of fee payment: 4 Payment date: 20151230
KR101238426 B1	20161229	LSFE	FPAY	ANNUAL FEE PAYMENT	Year of fee payment: 5 Payment date: 20161229
KR101238426 B1	20230905	PEXP		Calculated Patent Term Expiry	
KR101343521 B1	20131220	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101343521 B1	20161125	LSFE	FPAY	ANNUAL FEE PAYMENT	Payment date: 20161125 Year of fee payment: 4
KR101343521 B1	20170928	LSFE	FPAY	ANNUAL FEE PAYMENT	Year of fee payment: 5 Payment date: 20170929
KR101343521 B1	20180928	LSFE	FPAY	ANNUAL FEE PAYMENT	Payment date: 20180928 Year of fee payment: 6
KR101343521 B1	20230905	PEXP		Calculated Patent Term Expiry	
KR20050072742 A	20050712	LSPB	+	published / reissued	
KR20050072742 A	20080903	LSES	A201	REQUEST FOR EXAMINATION	
KR20050072742 A	20101130	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20050072742 A	20101209	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20050072742 A	20110309	LSRE	AMND	AMENDMENT	
KR20050072742 A	20110928	LSRV	-E601	DECISION TO REFUSE	

				APPLICATION	
KR20050072742 A	20111229	LSRE	AMND	AMENDMENT	
KR20050072742 A	20111229		J201	REQUEST FOR TRIAL AGAINST REFUSAL DECISION	
KR20050072742 A	20120127		A107	DIVISIONAL APPLICATION OF PATENT	
KR20050072742 A	20120201		B90T	TRANSFER OF TRIAL FILE FOR RE-EXAMINATION	
KR20050072742 A	20120315		B601	MAINTENANCE OF ORIGINAL DECISION AFTER RE-EXAMINATION BEFORE A TRIAL	
KR20050072742 A	20120315		E801	DECISION ON DISMISSAL OF AMENDMENT	
KR20050072742 A	20120724		S901	EXAMINATION BY REMAND OF REVOCATION	
KR20050072742 A	20120820	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20050072742 A	20121220	LSRE	AMND	AMENDMENT	
KR20050072742 A	20130430	LSRV	-S601	DECISION TO REJECT AGAIN AFTER REMAND OF REVOCATION	
KR20050072742 A	20130801		J201	REQUEST FOR TRIAL AGAINST REFUSAL DECISION	
KR20050072742 A	20130830	LSRE	AMND	AMENDMENT	
KR20050072742 A	20131002	LSGT	+GRNO	DECISION TO GRANT (AFTER OPPOSITION)	
KR20050072742 A	20131213	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR20120034215 A	20120410	LSPB	+	published / reissued	
MXPA01005719 A1	20030714	LSPB	+	published / reissued	
MXPA01005719 A1	20071005	LSGT	+FG	GRANT OR REGISTRATION	
MXPA05002656 A1	20050608	LSPB	+	published / reissued	
MXPA05002656 A1	20090714	LSGT	+FG	GRANT OR REGISTRATION	
RU2001118844 A	20030327	LSPB	+	published / reissued	
RU2005110425 A	20051010	LSPB	+	published / reissued	
RU2320037 C2	20080320	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2320037 C2	20230905	PEXP		Calculated Patent Term Expiry	
US2002043631 AA	20020418	LSPB	+	published / reissued	
US2003010939 AA	20030116	LSPB	+	published / reissued	
US2003010939 AA	20041118	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2004004196 AA	20040108	LSPB	+	published / reissued	
US2004004196 AA	20041223	LSGT	PAT1	Patented Case	
US2004004196 AA	20041223	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2005211930 AA	20050929	LSPB	+	published / reissued	
US2005211930 AA	20081222	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE

US2009000007 AA	20080613	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:DEMEO, RONALD F.;REEL/FRAME:021097/0019 Owner: MERIDIAN RESEARCH AND DEVELOPMENT, INC., FLORIDA PartyType: owner Effective date: 20080602
US2009000007 AA	20090101	LSPB	+	published / reissued	
US2009000007 AA	20120203	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2009000007 AA	20120203		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2009114857 AA	20090507	LSPB	+	published / reissued	
US2009114857 AA	20121128	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US6281515 BA	19981207	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:DEMEO, RONALD;BENEDETTO, MARCUS D.;REEL/FRAME:009639/0422 PartyType: owner Owner: MERIDIAN RESEARCH AND DEVELOPMENT, FLORIDA Effective date: 19981203
US6281515 BA	20010809	LSGT	PAT1	Patented Case	
US6281515 BA	20010809	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US6281515 BA	20010828	LSGT	+	granted / extensions (spc, cpc, pte)	
US6281515 BA	20050228	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US6281515 BA	20090224	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US6281515 BA	20130304	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US6281515 BA	20130304		+SULP	SURCHARGE FOR LATE PAYMENT	Year of fee payment: 11
US6281515 BA	20181207	PEXP		Calculated Patent Term Expiry	
US6459091 BA	20011115	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:DEMEO, RONALD;BENEDETTO, MARCUS D.;REEL/FRAME:012429/0974 PartyType: owner Effective date: 20011010 Owner: MERIDIAN RESEARCH AND DEVELOPMENT, FLORIDA
US6459091 BA	20021001	LSGT	+	granted / extensions (spc, cpc, pte)	
US6459091 BA	20060414	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US6459091 BA	20060414		+SULP	SURCHARGE FOR LATE PAYMENT	
US6459091 BA	20080307	LSAS	AS	ASSIGNMENT	PartyType: owner Effective date: 20070501 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:EASTMAN KODAK COMPANY;REEL/FRAME:020741/0126 Owner: CARESTREAM HEALTH, INC., NEW YORK
US6459091 BA	20080307	LSAS	AS	ASSIGNMENT	Effective date: 20070501 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:EASTMAN KODAK COMPANY;REEL/FRAME:020741/0126 Owner: CARESTREAM HEALTH, INC.,NEW YORK PartyType: owner
US6459091 BA	20100510		REMI	MAINTENANCE FEE REMINDER MAILED	
US6459091 BA	20100511	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US6459091 BA	20100511		+SULP	SURCHARGE FOR LATE PAYMENT	Year of fee payment: 7

US6459091 BA	20140509		REMI	MAINTENANCE FEE REMINDER MAILED	
US6459091 BA	20141001	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6459091 BA	20141027	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6459091 BA	20141027	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6459091 BA	20141118	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20141001
US6459091 BA	20210827	PEXP		Calculated Patent Term Expiry	
US6828578 BB	20020909	LSAS	AS	ASSIGNMENT	Owner: MERIDIAN RESEARCH AND DEVELOPMENT, FLORIDA PartyType: owner Effective date: 20020909 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:DEMEO, RONALD;KUCHEROVSKY, JOSEPH;REEL/FRAME:013285/0665
US6828578 BB	20041118	LSGT	PAT1	Patented Case	
US6828578 BB	20041207	LSGT	+	granted / extensions (spc, cpc, pte)	
US6828578 BB	20080606	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US6828578 BB	20120514	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US6828578 BB	20160602	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US6828578 BB	20220909	PEXP		Calculated Patent Term Expiry	
US6841791 BB	20030716	LSAS	AS	ASSIGNMENT	Effective date: 20030711 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:DEMEO, RONALD;KUCHEROVSKY, JOSEPH;REEL/FRAME:014340/0626 Owner: MERIDIAN RESEARCH AND DEVELOPMENT, FLORIDA PartyType: owner
US6841791 BB	20050111	LSGT	+	granted / extensions (spc, cpc, pte)	
US6841791 BB	20080619	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US6841791 BB	20120412	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US6841791 BB	20160627	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US6841791 BB	20181226	PEXP		Calculated Patent Term Expiry (PTA 19 days)	
US7476889 BB	20050606	LSAS	AS	ASSIGNMENT	Effective date: 20050526 Owner: MERIDIAN RESEARCH AND DEVELOPMENT, FLORIDA PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:DEMEO, RONALD;KUCHEROVSKY, JOSEPH;KURUPATHI, AMIT;REEL/FRAME:016306/0403
US7476889 BB	20081222	LSGT	PAT1	Patented Case	
US7476889 BB	20090113	LSGT	+	granted / extensions (spc, cpc, pte)	
US7476889 BB	20120710	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US7476889 BB	20160627	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US7476889 BB	20190625	PEXP		Calculated Patent Term Expiry (PTA 200 days)	
US7476889 BB	20200831	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US8334524 BB	20121128	LSGT	PAT1	Patented Case	
US8334524 BB	20121218	LSGT	+	granted / extensions (spc, cpc, pte)	

US8334524 BB	20160602	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US8334524 BB	20190828	PEXP		Calculated Patent Term Expiry (PTA 264 days)	
US8334524 BB	20200526	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	Year of fee payment: 8
WO0034957 A1	20000203	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 2000 12386 Kind code of Ref document: A Country of Ref document: AU
WO0034957 A1	20000615	LSPB	+	published / reissued	
WO0034957 A1	20000615		+AK	DESIGNATED STATES	Kind code of Ref document: A1 Country of Ref document: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
WO0034957 A1	20000615		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: A1 Country of Ref document: AM AT AZ BE BF BJ BY CF CG CH CI CM CY DE DK ES FI FR GA GB GH GM GN GR GW IE IT KE KG KZ LS LU MC MD ML MR MW NE NL PT RU SD SE SL SN SZ TD TG TJ TM TZ UG ZW
WO0034957 A1	20000809		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	
WO0034957 A1	20000908		DFPE	REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH MONTH FROM PRIORITY DATE (PCT APPLICATION FILED BEFORE 20040101)	
WO0034957 A1	20010606	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 2353957 Country of Ref document: CA
WO0034957 A1	20010606	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 2353957 Country of Ref document: CA
WO0034957 A1	20010606	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 2000 587337 Country of Ref document: JP
WO0034957 A1	20010607	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: PA/a/2001/005719 Country of Ref document: MX
WO0034957 A1	20010629	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 1999973342 Country of Ref document: EP
WO0034957 A1	20010703	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 12386/00 Country of Ref document: AU
WO0034957 A1	20010706	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: IN/PCT/2001/958/CHE Country of Ref document: IN
WO0034957 A1	20011010	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: 1999973342 Country of Ref document: EP
WO0034957 A1	20011011	LSWD	REG	REFERENCE TO NATIONAL CODE	Ref legal event code: 8642 Ref country code: DE
WO0034957 A1	20040506	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	Ref document number: 12386/00 Country of Ref document: AU
WO04021811 A2	20040318	LSPB	+	published / reissued	
WO04021811 A2	20040318		+AK	DESIGNATED STATES	Kind code of Ref document: A2 Country of Ref document: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
WO04021811 A2	20040318		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: A2 Country of Ref document: AM AT AZ BE BF BG BJ BY CF CG CH CI CM CY CZ DE DK EE ES FI FR GA GB GH GM GN GR GW HU IE IT KE KG KZ LS LU MC MD ML MR MW MZ NE NL PT RO RU SD SE SI SK SL SN SZ TD TG TJ TM TR TZ UG ZM ZW
WO04021811 A2	20040512		121	EP: THE EPO HAS	

				BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	
WO04021811 A3	20050309	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 1020057004082 Country of Ref document: KR
WO04021811 A3	20050309	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2004534753 Country of Ref document: JP
WO04021811 A3	20050309	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2498312 Country of Ref document: CA
WO04021811 A3	20050309	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 167330 Country of Ref document: IL
WO04021811 A3	20050309	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: PA/a/2005/002656 Country of Ref document: MX
WO04021811 A3	20050317	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2003268544 Country of Ref document: AU
WO04021811 A3	20050405	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 555/CHENP/2005 Country of Ref document: IN
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WO04021811 A3	20050712	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: 1020057004082 Country of Ref document: KR
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WO06069007 C2	20070620	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2591994 Country of Ref document: CA
WO06069007 C2	20070621	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
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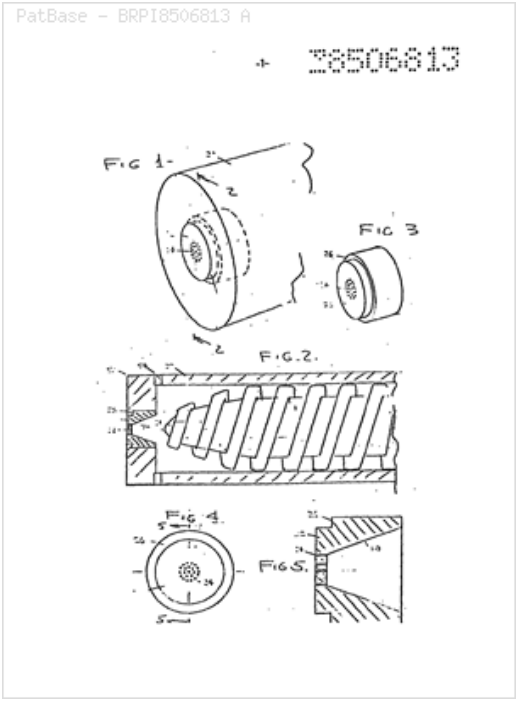
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				INFORMATION: PUBLISHED IN NATIONAL OFFICE	Country of Ref document: EP

71) Family number: 3208864 (US4510950 A)

Title: Foamed, **extruded**, tobacco-containing smoking article and method of making same

Abstract: A substantially cylindrical foamed, **extruded**, tobacco-containing smoking article is provided which has properties substantially equivalent to those of a conventional cigarette and which contains from about 5 to about 98 weight percent of tobacco particles having a particle size of up to about 5 mesh, from 0 to about 60 weight percent of a filler having a particle size of up to about 350 mu m mesh, from about 2 to about 40 weight percent of a cellulosic binder selected from the group consisting of hydroxypropyl cellulose, carboxymethyl cellulose, and its sodium, potassium and ammonium salts, cross-linked carboxymethyl cellulose, and its sodium, potassium and ammonium salts, hydroxyethyl cellulose, ethyl hydroxyethyl cellulose, hydroxypropyl methyl cellulose, methyl cellulose, ethyl cellulose, and mixtures thereof, and from about 5 to about 20 weight percent water. The article has a density within the range of from about 0.05 to about 1.5 g/cc. The method of making such articles comprises the steps of (a) dry blending from about 5 to about 98 weight percent of the tobacco particles having an OV value of from about 3 to about 20 percent, with from 0 to about 60 weight percent of a filler and having a particle size of up to about 5 mesh, and from about 4 to about 40 weight percent of the cellulosic binder; then (b) admixing this dry blend with water to form a wet blend containing from about 15 to about 50 weight percent of water; then (c) **extruding** the wet blend under extrusion conditions of temperature and pressure such that as the wet blend is **extruded** the moisture in the blend is converted to steam thereby foaming the article.

Classifications:
International (IPC 8-9): A24B15/00 A24B15/14 A24B3/00 A24B3/14 A24B3/18
International (IPC 1-7): A24B15/12 A24B15/14 A24B15/28 A24B3/00 A24B3/12 A24B3/14 A24B3/18 A24C5/0 A24C5/00 A24C5/18
CPC: A24B15/14 A24B3/14
US: 131/294 131/353 131/354 131/355 131/358 131/364 131/369 131/371 131/375 131/77 131/78 131/79 131/80



Family:

Publication number	Publication date	Application number	Application date
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AU198544558 A1	19860109	AU19850044558	19850703
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DE3381427 D1	19900517	DE19833381427T	19831230
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EP0198718 A2	19861022	EP19860302839	19860416
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Priority:

US19820457505 19821230
US19840627407 19840703
WO1985US01247 19850701
CA19860506594 19860414
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CA19830444317 19831228
US19850740325 19850603
CN19851005843 19850802
US19880246089 19880919

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Agent(s): CALLINANS; FISHER ADAMS KELLY CALLINANS; RIDOUT AND MAYBEE LLP; SPRUSON AND FERGUSON

Designated states: BR CH DE ES FR GB IT LI NL

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU198322942 A1	19840705	LSPB	+	published / reissued	
AU198544558 A1	19860109	LSPB	+	published / reissued	
AU198656134 A1	19861023	LSPB	+	published / reissued	
AU198819180 A1	19890119	LSPB	+	published / reissued	
AU565056 B2	19870903	LSGT	+	granted / extensions (spc, cpc, pte)	
AU565056 B2	20031229	PEXP		Calculated Patent Term Expiry	
AU577871 B2	19881006	LSGT	+	granted / extensions (spc, cpc, pte)	
AU577871 B2	20050703	PEXP		Calculated Patent Term Expiry	
AU586238 B2	19890706	LSGT	+	granted / extensions (spc, cpc, pte)	
AU586238 B2	20060415	PEXP		Calculated Patent Term Expiry	
AU614975 B2	19910919	LSGT	+	granted / extensions (spc, cpc, pte)	
AU614975 B2	20080719	PEXP		Calculated Patent Term Expiry	
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CA1213432 A1	20031228	LSLE	-MKEX	EXPIRY	
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CA1255568 A1	20060613	LSLE	-MKEX	EXPIRY	
CN1010170 B	19901031	LSPB	+	published / reissued	
CN1010170 B	19901031		C13	DECISION	
CN1010170 B	19901031	LSES	GR02	审定 (Approved patent application)	Text: 审定 (Approval)
CN1010170 B	19901231	LSRE	COR	CHANGE OF BIBLIOGRAPHIC DATA	Text: CORRECT FROM: PHILIP MORRIS INC. _ NEW YORK, UNITED STATES TO: PHILIP MORRIS PRODUCTS CO., LTD. VIRGINIA, USA
CN1010170 B	19910710	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN1010170 B	19910710	LSGT	+GR01	授权 (The grant of patent right)	Text: 授权 (Authorization)
CN1010170 B	19930609	LSLE	-C19	LAPSE OF PATENT RIGHT DUE TO NON-PAYMENT OF THE ANNUAL FEE	
CN1010170 B	19930609	LSLE	-CF01	未缴年费专利权终止 (Termination of patent right due to unpaid annual fee)	Text: 专利权的终止未缴年费专利权终止 (Any cessation termination of patent right due to failure to pay annual fee)
CN1015689 B	19920304	LSPB	+	published / reissued	
CN1015689 B	19920304		C13	DECISION	
CN1015689 B	19920304	LSES	GR02	审定 (Approved patent application)	Text: 审定 (Approval)
CN1015689 B	19930721	LSDW	-C01	DEEMED WITHDRAWAL OF PATENT APPLICATION (PATENT LAW 1993)	
CN1015689 B	19930721	LSDW	-WD01	发明专利申请公布后的视为撤回 (Deemed withdrawal of application for invention after its publication)	Text: 专利申请的视为撤回 (Patent application is deemed to have been withdrawn)
CN85105843 A	19870127	LSPB	+	published / reissued	
CN85105843 A	19870127	LSPB	+C06	PUBLICATION	
CN85105843 A	19870128	LSPB	PB01	公开 (The publication of application)	Text: 公开 (Disclosure)
CN85105843 A	19881130		C10	ENTRY INTO SUBSTANTIVE EXAMINATION	
CN85105843 A	19881130		SE01	实质审查请求的生效 (The entry into substantive examination)	Text: 实质审查请求 (The Request for Substantive Examination)
CN85105843 A	19900725	LSRE	C53	CORRECTION OF PATENT FOR INVENTION OR PATENT APPLICATION	
CN85105843 A	19900725	LSRE	CB01	著录事项变更 (Change of bibliographic data)	Text: 变更 (Change)
CN86102651 A	19870204	LSPB	+	published / reissued	
CN86102651 A	19870204	LSPB	+C06	PUBLICATION	
CN86102651 A	19870204	LSPB	PB01	公开 (The publication of application)	Text: 公开 (Disclosure)
CN86102651 A	19880817		C10	ENTRY INTO SUBSTANTIVE EXAMINATION	
CN86102651 A	19880817		SE01	实质审查请求的生效 (The entry into substantive examination)	Text: 实质审查请求 (The Request for Substantive Examination)
CN86102651 A	19900509	LSRE	C53	CORRECTION OF PATENT FOR INVENTION OR PATENT	

				APPLICATION	
CN86102651 A	19900509	LSAS	CB02	申请人信息变更 (Change of applicant information)	Text: 变更 (Change) Assignee After Change: 菲利普莫利斯产品有限公司 (Philippe Mo Lisburn Products Co., Ltd.) Assignee Before Change: 菲利普莫利斯公司 (Philippe Morley company)
CN86102651 A	19901231	LSRE	COR	CHANGE OF BIBLIOGRAPHIC DATA	Text: CORRECT: APPLICANT; FROM: PHILIP MORRIS COMPANIES TO: PHILIP MORIS PRODUCTS CO., LTD.
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EP0113595 A2	19840718		+AK	DESIGNATED CONTRACTING STATES	Country of Ref document: CH DE FR GB IT LI NL
EP0113595 A3	19860305		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A3 Country of Ref document: CH DE FR GB IT LI NL
EP0113595 A3	19860910	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 19860715
EP0113595 A3	19880120	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 19871203
EP0113595 A3	19880907	LSAS	RAP1	PARTY DATA CHANGED (APPLICANT DATA CHANGED OR RIGHTS OF AN APPLICATION TRANSFERRED)	PartyType: owner Owner: PHILIP MORRIS PRODUCTS INC.
EP0113595 B1	19900411	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0113595 B1	19900411		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: B1 Country of Ref document: CH DE FR GB IT LI NL
EP0113595 B1	19900517		REF	CORRESPONDS TO:	Date of Ref document: 19900517 Ref document number: 3381427 Country of Ref document: DE
EP0113595 B1	19900629		+ET	FR: TRANSLATION FILED	
EP0113595 B1	19900629		+ITF	IT: TRANSLATION FOR A EP PATENT FILED	Owner: STUDIO TORTA SOCIETA' SEMPLICE PartyType: owner
EP0113595 B1	19910327	LSGT	+26N	NO OPPOSITION FILED	
EP0113595 B1	19910410	LSOP	-26	OPPOSITION FILED	Effective date: 19910107 Opponent: BRITISH- AMERICAN TOBACCO COMPANY LIMITED PartyType: opponent
EP0113595 B1	19910603	LSOP	-NLR1	NL: OPPOSITION HAS BEEN FILED WITH THE EPO	Opponent: BRITISH- AMERICAN TOBACCO COMPANY LIMITED. PartyType: opponent Ref country code: EP
EP0113595 B1	19911107	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM	Payment date: 19911107 Year of fee payment: 9 Country of Ref document: FR

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EP0113595 B1	19921116	LSOP	NLR2	NL: DECISION OF OPPOSITION	Ref country code: EP
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EP0167370 A2	19860108	LSPB	+	published / reissued	
EP0167370 A2	19860108		+AK	DESIGNATED CONTRACTING STATES	Country of Ref document: CH DE FR GB IT LI NL
EP0167370 A3	19860305		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A3 Country of Ref document: CH DE FR GB IT LI NL
EP0167370 A3	19860910	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 19860715
EP0167370 A3	19880120	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 19871202
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EP0167370 B1	19930101	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 19930101 Country of Ref document: NL
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EP0167370 B1	19930224	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	Effective date: 19920628 Ref country code: EP
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EP0167370 B1	19930302	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 19930302 Country of Ref document: DE
EP0167370 B1	19930430	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: FR Ref legal event code: ST
EP0167370 B1	20050628	PEXP		Calculated Patent Term Expiry	
EP0198718 A2	19861022	LSPB	+	published / reissued	
EP0198718 A2	19861022		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A2 Country of Ref document: CH DE FR GB IT LI NL

EP0198718 A3	19880420		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A3 Country of Ref document: CH DE FR GB IT LI NL
EP0198718 A3	19880713	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 19880510
EP0198718 A3	19880914	LSAS	RAP1	PARTY DATA CHANGED (APPLICANT DATA CHANGED OR RIGHTS OF AN APPLICATION TRANSFERRED)	Owner: PHILIP MORRIS PRODUCTS INC. PartyType: owner
EP0198718 A3	19900822	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 19900705
EP0198718 A3	19930512	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	Effective date: 19921103
EP0198718 A3	20070808		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: KERITSIS, GUS D. PartyType: inventor
EP0198718 A3	20070808		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: NICHOLS, WALTER A. PartyType: inventor
EP0198718 A3	20070808		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: BURNETT, GEORGE H. PartyType: inventor
EP0198718 A3	20070808		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: THESING, RICHARD A. PartyType: inventor
EP0198718 A3	20070808		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: NEPOMUCENO, JOSE G. PartyType: inventor
EP0299803 A2	19890118	LSPB	+	published / reissued	
EP0299803 A2	19890118		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A2 Country of Ref document: CH DE ES FR GB IT LI NL
EP0299803 A3	19900314		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A3 Country of Ref document: CH DE ES FR GB IT LI NL
EP0299803 A3	19901031	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 19900907
EP0299803 A3	19911016	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 19910904
EP0299803 A3	19920624	LSWD	-18W	APPLICATION WITHDRAWN	Date Application Withdrawn: 19920429
ES8702123 A1	19870101	LSGT	+	granted / extensions (spc, cpc, pte)	
ES8702123 A1	19961216	LSLE	-FD1A	PATENT LAPSED	Effective date: 19960603
ES8702123 A1	20070101	PEXP		Calculated Patent Term Expiry	
ES8800015 A1	19871016	LSGT	+	granted / extensions (spc, cpc, pte)	
ES8800015 A1	19960701	LSLE	-MM4A	PATENT LAPSED	Effective date: 19960506
ES8800015 A1	20071016	PEXP		Calculated Patent Term Expiry	
US4510950 A	19821230	LSAS	AS	ASSIGNMENT	Effective date: 19821223 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST.;ASSIGNORS:KERITSIS, GUS D.;NICHOLS, WALTER A.;REEL/FRAME:004083/0847 Owner: PHILIP MORRIS INCORPORATED 100 PARK AVE.,NEW YORK, PartyType: owner
US4510950 A	19850214	LSGT	PAT1	Patented Case	
US4510950 A	19850214	LSGT	STCF	INFORMATION ON STATUS: PATENT	Text: PATENTED CASE

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US4510950 A	19850416	LSGT	+	granted / extensions (spc, cpc, pte)	
US4510950 A	19880713	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US4510950 A	19920917	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US4510950 A	19961119		REMI	MAINTENANCE FEE REMINDER MAILED	
US4510950 A	19970320	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US4510950 A	19970320		+SULP	SURCHARGE FOR LATE PAYMENT	
US4625737 A	19850612	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST.;ASSIGNORS:NEPOMUCENO, JOSE, G.;KERITSIS, GUS D.;NICHOLS, WALTER A.;AND OTHERS;REEL/FRAME:004437/0643;SIGNING DATES FROM 19850604 TO 19850606 Owner: PHILLIP MORRIS INCORPORATED, 100 PARK AVENUE, NEW PartyType: owner
US4625737 A	19860930	LSGT	PAT1	Patented Case	
US4625737 A	19861202	LSGT	+	granted / extensions (spc, cpc, pte)	
US4625737 A	19870602	LSRE	CC	CERTIFICATE OF CORRECTION	
US4625737 A	19900319	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US4625737 A	19940712		REMI	MAINTENANCE FEE REMINDER MAILED	
US4625737 A	19941204	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US4625737 A	19950214	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 19941207
US4625737 A	20050416	PEXP		Calculated Patent Term Expiry	
US4625737 A	20180131	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US4625737 A	20180131	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US4632131 A	19850603	LSAS	AS	ASSIGNMENT	Effective date: 19850528 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST.;ASSIGNORS:BURNETT, GEORGE H.;KERITSIS, GUS D.;THESING, RICHARD A.;AND OTHERS;REEL/FRAME:004437/0027 Owner: PHILIP MORRIS INCORPORATED 100 PARK AVENUE, NEW YO PartyType: owner
US4632131 A	19861028	LSGT	PAT1	Patented Case	
US4632131 A	19861230	LSGT	+	granted / extensions (spc, cpc, pte)	
US4632131 A	19870707	LSRE	CC	CERTIFICATE OF CORRECTION	
US4632131 A	19900319	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US4632131 A	19940809		REMI	MAINTENANCE FEE REMINDER MAILED	
US4632131 A	19950101	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US4632131 A	19950314	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 19950104
US4632131 A	20050603	PEXP		Calculated Patent Term Expiry	
US4632131 A	20180131	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
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US4874000 A	19870717	LSAS	AS	ASSIGNMENT	Owner: PHILIP MORRIS INCORPORATED,

					100 PARK AVENUE, NEW PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST.;ASSIGNORS:TAMOL, RONALD A.;NEPOMUCENO, JOSE G.;KERITSIS, GUS D.;AND OTHERS;REEL/FRAME:004775/0127;SIGNING DATES FROM 19870622 TO 19870707
US4874000 A	19870717	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:TAMOL, RONALD A.;NEPOMUCENO, JOSE G.;KERITSIS, GUS D.;AND OTHERS;SIGNING DATES FROM 19870622 TO 19870707;REEL/FRAME:004775/0127 PartyType: owner Owner: PHILIP MORRIS INCORPORATED,NEW YORK
US4874000 A	19890829	LSGT	PAT1	Patented Case	
US4874000 A	19890829	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US4874000 A	19891017	LSGT	+	granted / extensions (spc, cpc, pte)	
US4874000 A	19920324	LSRE	CC	CERTIFICATE OF CORRECTION	
US4874000 A	19930225	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US4874000 A	19970527		REMI	MAINTENANCE FEE REMINDER MAILED	
US4874000 A	19970627	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US4874000 A	19970627		+SULP	SURCHARGE FOR LATE PAYMENT	
US4874000 A	20010420	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US4874000 A	20010420		+SULP	SURCHARGE FOR LATE PAYMENT	Year of fee payment: 11
US4874000 A	20070717	PEXP		Calculated Patent Term Expiry	
US4989620 A	19880919	LSAS	AS	ASSIGNMENT	PartyType: owner Owner: PHILIP MORRIS INCORPORATED, 120 PARK AVENUE, NEW Y OldParty: ASSIGNMENT OF ASSIGNORS INTEREST.;ASSIGNORS:KERITSIS, GUS D.;THESING, RICHARD A.;NICHOLS, WALTER A.;REEL/FRAME:004956/0729;SIGNING DATES FROM 19880818 TO 19880822
US4989620 A	19880919	LSAS	AS	ASSIGNMENT	Owner: PHILIP MORRIS INCORPORATED, A CORP. OF VIRGINIA,NE OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:KERITSIS, GUS D.;THESING, RICHARD A.;NICHOLS, WALTER A.;SIGNING DATES FROM 19880818 TO 19880822;REEL/FRAME:004956/0729 PartyType: owner
US4989620 A	19901205	LSGT	PAT1	Patented Case	
US4989620 A	19910205	LSGT	+	granted / extensions (spc, cpc, pte)	
US4989620 A	19920225		RF	REISSUE APPLICATION FILED	Effective date: 19911213
US4989620 A	19940913		REMI	MAINTENANCE FEE REMINDER MAILED	
US4989620 A	19950205	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US4989620 A	19950418	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 19950208
US4989620 A	20080919	PEXP		Calculated Patent Term Expiry	
US4989620 A	20180129	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US4989620 A	20180129	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
WO8402636 A1	19840719	LSPB	+	published / reissued	
WO8402636 A1	19840719		+AK	DESIGNATED STATES	Country of Ref document: BR
WO8600504 A1	19860130	LSPB	+	published /	

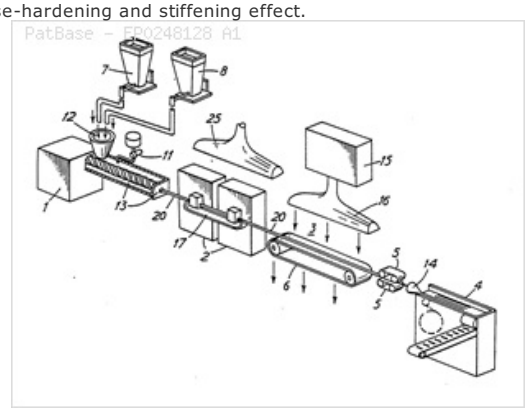
			reissued	
WO8600504 A1	19860130	+AK	DESIGNATED STATES	Country of Ref document: BR

72) Family number: 6718826 (EP0248128 A1)

Title: PROCESSING CONTINUOUSLY-**EXTRUDED** TOBACCO-CONTAINING MATERIAL.

Abstract: A continuous rod 20 of foamed tobacco-containing material is delivered by **extruder** barrel 13 which is fed with tobacco from supply 7, binder from supply 8, and water from supply 11. To enable the rod 20 to be fed directly to a cigarette-making machine 4 it is first dried by passage through microwave driers 2, volatile materials being removed by vacuum hood 25. Rod 20 then passes along **conveyor** 6 and is cooled by refrigerated air driven by fan 16. The surface temperature is reduced below the bulk temperature, which has a case-hardening and stiffening effect.

Classifications:
International (IPC 8-9): A24B3/00 A24B3/14
International (IPC 1-7): A24B15/14 A24B3/14 A24C5/18
CPC: A24B3/14



Family:

Publication number	Publication date	Application number	Application date
AU198658295 A1	19871210	AU19860058295	19860603
AU586864 B2	19890727	AU19860058295	19860603
EP0248128 A1	19871209	EP19860304214	19860603

Priority:

EP19860304214 19860603 AU19860058295 19860603

Probable Assignee: PHILIP MORRIS INT INC

Assignee(s): (std): PHILIP MORRIS INC ; PHILIP MORRIS PROD

Assignee(s): MORRIS PHILIP INC ; PHILIP MORRIS INT INC ; PHILIP MORRIS PRODUCTS INC

Inventor(s): (std): BURNETT GEORGE H ; KERITSIS GUS D ; NEPOMUCENO JOSE G ; NICHOLAS WALTER A ; NICHOLS WALTER A ; TAMOL RONALD A ; THESING RICHARD A ; WINTERSON WARREN D

Inventor(s): GEORGE H BURNETT ; GUS D KERITSIS ; JOSE G NEPOMUCENO ; RICHARD A THESING ; RONALD A TAMOL ; WALTER A NICHOLAS ; WARREN D WINTERSON

Agent(s): CALLINANS; FISHER ADAMS KELLY CALLINANS; SPRUSON AND FERGUSON

Designated states: CH DE FR GB IT LI NL

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU198658295 A1	19871210	LSPB	+	published / reissued	
AU586864 B2	19890727	LSGT	+	granted / extensions (spc, cpc, pte)	
AU586864 B2	20060603	PEXP		Calculated Patent Term Expiry	
EP0248128 A1	19871209	LSPB	+	published / reissued	
EP0248128 A1	19871209		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: CH DE FR GB IT LI NL
EP0248128 A1	19880504	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 19880310
EP0248128 A1	19880831	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	PartyType: owner Owner: PHILIP MORRIS PRODUCTS INC.
EP0248128 A1	19900816	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 19900629
EP0248128 A1	19930609	LSRV	-18R	APPLICATION REFUSED	Effective date: 19930118
EP0248128 A1	20070808		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: TAMOL, RONALD A. PartyType: inventor
EP0248128 A1	20070808		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: KERITSIS, GUS D. PartyType: inventor
EP0248128 A1	20070808		RIN1	INFORMATION ON INVENTOR	Inventor: THESING,

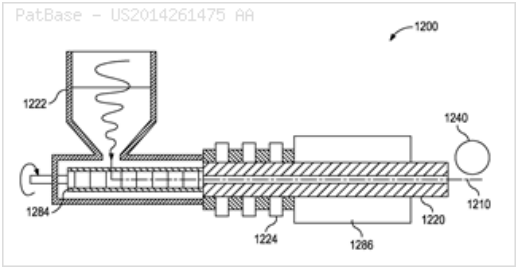
			PROVIDED BEFORE GRANT (CORRECTED)	RICHARD A. PartyType: inventor
EP0248128 A1	20070808	RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: NEPOMUCENO, JOSE G. PartyType: inventor
EP0248128 A1	20070808	RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: BURNETT, GEORGE H. PartyType: inventor
EP0248128 A1	20070808	RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: WINTERSON, WARREN D. PartyType: inventor
EP0248128 A1	20070808	RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: NICHOLS, WALTER A. PartyType: inventor

73) Family number: 57421723 (US2014261475 AA)

Title: APPARATUSES, SYSTEMS, AND ASSOCIATED METHODS FOR FORMING ORGANIC POROUS MASSES FOR FLAVORED SMOKE FILTERS

Abstract: Organic porous masses may be used in flavored smoke filters. Production of organic porous masses may involve introducing a matrix material into a mold cavity, the matrix material comprising a plurality of binder particles, a plurality of organic particles, and a microwave enhancement additive; heating at least a portion of the matrix material so as to bind the matrix material at a plurality of contact points, thereby forming an organic porous mass length, wherein heating involves irradiating with microwave radiation the at least a portion of the matrix material; and cutting the organic porous mass length radially thereby yielding an organic porous mass.

Classifications:
International (IPC 8-9): A24B3/02 A24B3/08 A24D3/02 A24D3/04 A24D3/06 A24D3/08 A24D3/10 A24D3/12 A24D3/14 A24D3/16 A24D3/18 C01B11/22 C07C69/12
CPC: A24D3/08 A24D3/10 A24D3/16 A24D3/0225 A24D3/06 A24D3/066 A24D3/14 A24D3/02
US: 1/1 131/275 131/331 131/332 131/335 131/342 264/122 264/123



Family:

Publication number	Publication date	Application number	Application date
AR095361 AA	20151014	AR2014P100900	20140312
AR095460 AA	20151021	AR2014P101062	20140314
BR112015017037 A2	20170711	BR20151117037	20140310
BR112015021211 A2	20170718	BR20151121211	20140311
CA2896773 AA	20150626	CA20142896773	20140310
CA2896773 C	20171219	CA20142896773	20140310
CA2898661 AA	20150717	CA20142898661	20140311
CL2015002429 A1	20160610	CL20150002429	20150828
CL2015002564 A1	20160527	CL20150002564	20150910
CL57170 B	20190319	CL20150002564	20150910
CN104994756 A	20151021	CN201480009219	20140310
CN105025737 A	20151104	CN201480013470	20140311
CO7540379 A2	20160310	CO20150229734	20150928
EA201591436 A1	20151230	EA20150091436	20140310
EA201591744 A1	20151230	EA20150091744	20140311
EP2967131 A1	20160120	EP20140767621	20140311
EP2967131 A4	20161109	EP20140767621	20140311
EP2967134 A1	20160120	EP20140778123	20140310
EP2967134 A4	20170426	EP20140778123	20140310
ID201700368 A	20170127	ID2015P0005169	20140311
ID201605311 A	20160923	ID2015P0006407	20140310
IN06092CN2015 A	20160701	IN2015CN06092	20151007
JP2016510993 T2	20160414	JP20160501007T	20140310
JP6159470 B2	20170705	JP20160501007T	20140310
JP2016510995 T2	20160414	JP20160501103T	20140311
JP6283887 B2	20180228	JP20160501103T	20140311
KR20150126926 A	20151113	KR20157027895	20140310
KR20150130427 A	20151123	KR20157028160	20140311
MX2015012353 A1	20160203	MX20150012353	20140311
MX2015012544 A1	20160210	MX20150012544	20140310
PH2015501674 A	20151019	PH20150501674	20150728
SG11201505479V A1	20150929	SG20151105479	20140310
SG11201506056Q A1	20150929	SG20151106056	20140311
TH162438 A	20170511	TH20151005325	20140310
TW201509318 A	20150316	TW20140109143	20140313
TW201442648 A	20141116	TW20140109462	20140314
TWI552688 B	20161011	TW20140109462	20140314
US2014261502 AA	20140918	US20140202609	20140310
US9149071 BB	20151006	US20140202609	20140310
US2014261475 AA	20140918	US20140203613	20140311
US9215894 BB	20151222	US20140203613	20140311
US2015305401 AA	20151029	US20150793835	20150708
US9788573 BB	20171017	US20150793835	20150708
UY35389 A1	20141031	UY20140035389	20140312
UY35413 A1	20141031	UY20140035413	20140313
WO14164492 A1	20141009	WO2014US22585	20140310
WO14150313 A1	20140925	WO2014US22923	20140311

Priority:

US20130779114P 20130313 US20130781067P 20130314 US20130781085P 20130314
US20130781099P 20130314 US20130781128P 20130314 WO2014US22585 20140310
US20140202609 20140310 WO2014US22923 20140311 US20140203613 20140311
US20150793835 20150708

Probable Assignee: ACETATE INT LLC

Assignee(s): (std): CELANESE ACETATE LLC

Assignee(s): ACETATE INT LLC ; GOU ZEMING ; KIZER LAWTON E ; LI YI JULIE ; ROBERTSON RAYMOND M

Inventor(s): (std): GOU ZEMING ; JULIE LI YI ; KIZER LAWTON E ; LAWTON E KIZER ; LI YI JULIE ; RAYMOND M ROBERTSON ; ROBERTSON RAYMOND M ; YI JULIE LI ; ZEMING GOU

Agent(s): AKAMATSU TOSHIAKI; ANNISA AM BADAR SH LLM; DORA AM BADAR SPSI; JORDAN CAREY C ET AL; KAISER IONA ET AL; KURT; LAHRTZ FRITZ; LUZ CLEMENCIA DE PAEZ; MCDERMOTT WILL AND EMERY LLP; SARGENT AND KRAHN; SMART AND BIGGAR; VORYS SATER SEYMOUR AND PEASE LLP; YAMASAKI YUKUZO

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AR095361 AA	20151014	LSPB	+	published / reissued	
AR095361 AA	20200428	LSWD	-FB	SUSPENSION OF GRANTING PROCEDURE	
AR095460 AA	20151021	LSPB	+	published / reissued	
AR095460 AA	20200528	LSWD	-FB	SUSPENSION OF GRANTING PROCEDURE	
BR112015017037 A2	20170711	LSPB	+	published / reissued	
BR112015017037 A2	20180227		B06F	OBJECTIONS, DOCUMENTS AND/OR TRANSLATIONS NEEDED AFTER AN EXAMINATION REQUEST ACCORDING ART. 34 INDUSTRIAL PROPERTY LAW	
BR112015017037 A2	20180821	LSAS	B25A	REQUESTED TRANSFER OF RIGHTS APPROVED	Owner: ACETATE INTERNATIONAL LLC (US) PartyType: owner
BR112015017037 A2	20191126		B06U	PRELIMINARY REQUIREMENT: REQUESTS WITH SEARCHES PERFORMED BY OTHER PATENT OFFICES: SUSPENSION OF THE PATENT APPLICATION PROCEDURE	
BR112015017037 A2	20200107	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	Text: REFERENTE A 6A ANUIDADE.
BR112015017037 A2	20200623	LSRV	-B11B	DISMISSAL ACC. ART. 36, PAR 1 OF IPL - NO REPLY WITHIN 90 DAYS TO FULLFIL THE NECESSARY REQUIREMENTS	
BR112015021211 A2	20170718	LSPB	+	published / reissued	
BR112015021211 A2	20180227		B06F	OBJECTIONS, DOCUMENTS AND/OR TRANSLATIONS NEEDED AFTER AN EXAMINATION REQUEST ACCORDING ART. 34 INDUSTRIAL PROPERTY LAW	
BR112015021211 A2	20180821	LSAS	B25A	REQUESTED TRANSFER OF RIGHTS APPROVED	PartyType: owner Owner: ACETATE INTERNATIONAL LLC (US)
BR112015021211 A2	20200107	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	Text: REFERENTE A 6A ANUIDADE.
BR112015021211 A2	20200707	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS	Text: REFERENTE AO DESPACHO 8.6 PUBLICADO NA RPI 2557 DE 07/01/2020.

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CA2896773 AA	20150626	LSPB	+	published / reissued	
CA2896773 AA	20150716	LSES	+EEER	EXAMINATION REQUEST	Effective date: 20150626
CA2896773 C	20171219	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2896773 C	20200421	LSLE	-MKLA	LAPSED	Effective date: 20200310
CA2896773 C	20340310	PEXP		Calculated Patent Term Expiry	
CA2898661 AA	20150717	LSPB	+	published / reissued	
CA2898661 AA	20150802	LSES	+EEER	EXAMINATION REQUEST	Effective date: 20150717
CA2898661 AA	20190618	LSLE	-FZDE	DEAD	Effective date: 20190507
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CL2015002564 A1	20160527	LSPB	+	published / reissued	
CL57170 B	20190319	LSGT	+	granted / extensions (spc, cpc, pte)	
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CN104994756 A	20151021	LSPB	+	published / reissued	
CN104994756 A	20151021	LSPB	+C06	PUBLICATION	
CN104994756 A	20151021	LSPB	PB01	公开 (The publication of application)	Text: 公开 (Disclosure)
CN104994756 A	20151118		C10	ENTRY INTO SUBSTANTIVE EXAMINATION	
CN104994756 A	20151118		SE01	实质审查请求的生效 (The entry into substantive examination)	Text: 实质审查的生效 (Force of substantive review)
CN104994756 A	20180227	LSAS	TA01	TRANSFER OF PATENT APPLICATION RIGHT	
CN104994756 A	20180227	LSAS	TA01	专利申请权的转移 (Transfer of patent application right)	Applicant After Change: 醋酸纤维国际有限责任公司 (Cellulose acetate International Limited Liability Company) Applicant Before Change: 塞拉尼斯醋酸纤维有限公司 (Celanese Acetate Co.) Effective date: 20180206 Text: 专利申请权、专利权的转移 (Transfer of Patent Application or Patent Right)
CN104994756 A	20190111	LSDW	-WD01	INVENTION PATENT APPLICATION DEEMED WITHDRAWN AFTER PUBLICATION	
CN104994756 A	20190111	LSDW	-WD01	发明专利申请公布后的视为撤回 (Deemed withdrawal of application for invention after its publication)	Text: 发明专利申请公布后的视为撤回 (After the publication of the patent application for invention shall be deemed to have been withdrawn)
CN105025737 A	20151104	LSPB	+	published / reissued	
CN105025737 A	20151104	LSPB	+C06	PUBLICATION	
CN105025737 A	20151104	LSPB	PB01	公开 (The publication of application)	Text: 公开 (Disclosure)
CN105025737 A	20151202		C10	ENTRY INTO SUBSTANTIVE EXAMINATION	
CN105025737 A	20151202		SE01	实质审查请求的生效 (The entry into substantive examination)	Text: 实质审查的生效 (Force of substantive review)
CN105025737 A	20180227	LSAS	TA01	TRANSFER OF PATENT APPLICATION	

				RIGHT	
CN105025737 A	20180227	LSAS	TA01	专利申请权的转移 (Transfer of patent application right)	Applicant After Change: 醋酸纤维国际有限责任公司 (Cellulose acetate International Limited Liability Company) Applicant Before Change: 塞拉尼斯醋酸纤维有限公司 (Celanese Acetate Co.) Effective date: 20180206 Text: 专利申请权、专利权的转移 (Transfer of Patent Application or Patent Right)
CN105025737 A	20190201	LSDW	-WD01	INVENTION PATENT APPLICATION DEEMED WITHDRAWN AFTER PUBLICATION	
CN105025737 A	20190201	LSDW	-WD01	发明专利申请公布后的视为撤回 (Deemed withdrawal of application for invention after its publication)	Text: 发明专利申请公布后的视为撤回 (After the publication of the patent application for invention shall be deemed to have been withdrawn)
CO7540379 A2	20160310	LSPB	+	published / reissued	
EA201591436 A1	20151230	LSPB	+	published / reissued	
EA201591744 A1	20151230	LSPB	+	published / reissued	
EP2967131 A1	20160120	LSPB	+	published / reissued	
EP2967131 A1	20160120	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20151001
EP2967131 A1	20160120		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP2967131 A1	20160120		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Country of Ref document: BA ME
EP2967131 A1	20160224		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: GOU, ZEMING PartyType: inventor
EP2967131 A1	20160224		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: ROBERTSON, RAYMOND M. PartyType: inventor
EP2967131 A1	20160224		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	PartyType: inventor Inventor: KIZER, LAWTON E.
EP2967131 A1	20160224		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: LI, YI (JULIE) PartyType: inventor
EP2967131 A1	20160622		DAX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT (DELETED)	
EP2967131 A4	20161109	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	Effective date: 20161012
EP2967131 A4	20161109		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: A24D 3/02 20060101AFI20161006BHEP ClassificationScheme: IPC
EP2967131 A4	20161109		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: A24D 3/08 20060101ALI20161006BHEP ClassificationScheme: IPC
EP2967131 A4	20161109		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: A24D 3/06 20060101ALI20161006BHEP ClassificationScheme: IPC
EP2967131 A4	20161109		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: A24D 3/14 20060101ALI20161006BHEP ClassificationScheme: IPC
EP2967131 A4	20180801	LSAS	RAP1	PARTY DATA CHANGED	Owner: ACETATE INTERNATIONAL LLC

				(APPLICANT DATA CHANGED OR RIGHTS OF AN APPLICATION TRANSFERRED)	PartyType: owner
EP2967131 A4	20200304	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	Effective date: 20191001
EP2967134 A1	20160120	LSPB	+	published / reissued	
EP2967134 A1	20160120	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20150918
EP2967134 A1	20160120		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP2967134 A1	20160120		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Country of Ref document: BA ME
EP2967134 A1	20160622		DAX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT (DELETED)	
EP2967134 A1	20161228		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: A24D 3/16 20060101ALI20161118BHEP
EP2967134 A1	20161228		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: A24D 3/06 20060101AFI20161118BHEP
EP2967134 A4	20170426	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	Effective date: 20170328
EP2967134 A4	20170426		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: A24D 3/06 20060101AFI20170322BHEP
EP2967134 A4	20170426		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: A24D 3/16 20060101ALI20170322BHEP
EP2967134 A4	20180801	LSAS	RAP1	PARTY DATA CHANGED (APPLICANT DATA CHANGED OR RIGHTS OF AN APPLICATION TRANSFERRED)	Owner: ACETATE INTERNATIONAL LLC PartyType: owner
EP2967134 A4	20181212	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 20181112
EP2967134 A4	20190828	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	Effective date: 20190323
ID201605311 A	20160923	LSPB	+	published / reissued	
ID201700368 A	20170127	LSPB	+	published / reissued	
IN06092CN2015 A	20160701	LSPB	+	published / reissued	
JP2016510993 T2	20160414	LSPB	+	published / reissued	
JP2016510993 T2	20160818		A977	REPORT ON RETRIEVAL	Effective date: 20160817 Text: JAPANESE INTERMEDIATE CODE: A971007
JP2016510993 T2	20160927	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Effective date: 20160927 Text: JAPANESE INTERMEDIATE CODE: A131
JP2016510993 T2	20170117	LSRE	A521	WRITTEN AMENDMENT	Effective date: 20161221 Text: JAPANESE INTERMEDIATE CODE: A523
JP2016510993 T2	20170517	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2016510993 T2	20170523	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	Effective date: 20170523 Text: JAPANESE INTERMEDIATE CODE: A01

JP2016510993 T2	20170615	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	Effective date: 20170609 Text: JAPANESE INTERMEDIATE CODE: A61
JP2016510993 T2	20170616	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	Ref document number: 6159470 Text: JAPANESE INTERMEDIATE CODE: R150 Country of Ref document: JP
JP2016510995 T2	20160114	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	Effective date: 20151110 Text: JAPANESE INTERMEDIATE CODE: A621
JP2016510995 T2	20160414	LSPB	+	published / reissued	
JP2016510995 T2	20160818		A977	REPORT ON RETRIEVAL	Text: JAPANESE INTERMEDIATE CODE: A971007 Effective date: 20160817
JP2016510995 T2	20160927	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Effective date: 20160927 Text: JAPANESE INTERMEDIATE CODE: A131
JP2016510995 T2	20161221	LSRE	A521	WRITTEN AMENDMENT	Text: JAPANESE INTERMEDIATE CODE: A523 Effective date: 20161221
JP2016510995 T2	20170523	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Text: JAPANESE INTERMEDIATE CODE: A131 Effective date: 20170523
JP2016510995 T2	20170822	LSRE	A521	WRITTEN AMENDMENT	Text: JAPANESE INTERMEDIATE CODE: A523 Effective date: 20170822
JP2016510995 T2	20171215	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2016510995 T2	20171219	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	Effective date: 20171219 Text: JAPANESE INTERMEDIATE CODE: A01
JP2016510995 T2	20180111	LSAS	A711	NOTIFICATION OF CHANGE IN APPLICANT	Effective date: 20180111 Text: JAPANESE INTERMEDIATE CODE: A711
JP2016510995 T2	20180118	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	Effective date: 20180112 Text: JAPANESE INTERMEDIATE CODE: A61
JP2016510995 T2	20180129	LSRE	A521	WRITTEN AMENDMENT	Effective date: 20180111 Text: JAPANESE INTERMEDIATE CODE: A821
JP2016510995 T2	20180209	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	Ref document number: 6283887 Text: JAPANESE INTERMEDIATE CODE: R150 Country of Ref document: JP
JP6159470 B2	20170525	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP6159470 B2	20170613	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP6159470 B2	20170616	LSGT	+R150	特許証 (Patent certificate)	
JP6159470 B2	20170705	LSGT	+	granted / extensions (spc, cpc, pte)	
JP6159470 B2	20180323	LSAS	R313113	本権移転登録申請書 (譲渡) (Application for transfer of right of transfer (assignment))	
JP6159470 B2	20180323	LSAS	S111	REQUEST FOR CHANGE OF OWNERSHIP OR PART OF OWNERSHIP	Text: JAPANESE INTERMEDIATE CODE: R313113
JP6159470 B2	20180402	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	Text: JAPANESE INTERMEDIATE CODE: R350
JP6159470 B2	20180402	LSAS	R350	移転登録済通知書 (Transfer registered notice)	
JP6159470 B2	20340310	PEXP		Calculated Patent Term Expiry	
JP6283887 B2	20171221	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP6283887 B2	20171221	LSGT	+A01	特許査定書 (Decision of patent grant)	Effective date: 20171219

JP6283887 B2	20180116	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP6283887 B2	20180116	LSFE	R100	特許料納付書 (Patent fee payment form)	Effective date: 20180112 Text: 51800060005
JP6283887 B2	20180209	LSGT	+R150	特許証 (Patent certificate)	
JP6283887 B2	20180209	LSGT	+R150	特許証 (Patent certificate)	Effective date: 20180220
JP6283887 B2	20180228	LSGT	+	granted / extensions (spc, cpc, pte)	
JP6283887 B2	20210128	LSFE	R20	特許料納付書 (Patent fee payment form)	Effective date: 20210127 Text: 52100196439
JP6283887 B2	20340311	PEXP		Calculated Patent Term Expiry	
KR20150126926 A	20151007	LSES	A201	REQUEST FOR EXAMINATION	
KR20150126926 A	20151113	LSPB	+	published / reissued	
KR20150126926 A	20170124	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20150126926 A	20170419	LSRE	AMND	AMENDMENT	
KR20150126926 A	20170828	LSRV	-E601	DECISION TO REFUSE APPLICATION	
KR20150126926 A	20171121	LSRE	AMND	AMENDMENT	
KR20150126926 A	20171228	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20150130427 A	20151008	LSES	A201	REQUEST FOR EXAMINATION	
KR20150130427 A	20151123	LSPB	+	published / reissued	
KR20150130427 A	20170125	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20150130427 A	20170810	LSRV	-E601	DECISION TO REFUSE APPLICATION	
MX2015012353 A1	20160203	LSPB	+	published / reissued	
MX2015012544 A1	20160210	LSPB	+	published / reissued	
PH2015501674 A	20151019	LSPB	+	published / reissued	
SG11201505479V A1	20150929	LSPB	+	published / reissued	
SG11201506056Q A1	20150929	LSPB	+	published / reissued	
TH162438 A	20170511	LSPB	+	published / reissued	
TW201442648 A	20141116	LSPB	+	published / reissued	
TW201509318 A	20150316	LSPB	+	published / reissued	
TWI552688 B	20161011	LSGT	+	granted / extensions (spc, cpc, pte)	
TWI552688 B	20200711	LSLE	-MM4A	ANNULMENT OR LAPSE OF PATENT DUE TO NON-PAYMENT OF FEES	
TWI552688 B	20340314	PEXP		Calculated Patent Term Expiry	
US2014261475 AA	20140918	LSPB	+	published / reissued	
US2014261475 AA	20151202	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2014261502 AA	20140918	LSPB	+	published / reissued	
US2014261502 AA	20150916	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE

US2015305401 AA	20151029	LSPB	+	published / reissued	
US2015305401 AA	20170503		RSP4	Response to Non-Final Office Action Entered and Forwarded to Examiner	
US2015305401 AA	20170605		FRM1	Final Rejection Mailed	
US2015305401 AA	20170808		RSP1	Response after Final Action Forwarded to Examiner	
US2015305401 AA	20170826	LSES	ALW2	Allowed -- Notice of Allowance Not Yet Mailed	
US2015305401 AA	20170828	LSES	NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2015305401 AA	20170907	LSFE	PPR1	Publications -- Issue Fee Payment Received	
US2015305401 AA	20170908	LSFE	PPV1	Publications -- Issue Fee Payment Verified	
US2015305401 AA	20170927	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US9149071 BB	20140310	LSAS	AS	ASSIGNMENT	Effective date: 20140307 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:KIZER, LAWTON E.;ROBERTSON, RAYMOND M.;REEL/FRAME:032394/0523 PartyType: owner Owner: CELANESE ACETATE LLC, TEXAS
US9149071 BB	20150916	LSGT	PAT1	Patented Case	
US9149071 BB	20151006	LSGT	+	granted / extensions (spc, cpc, pte)	
US9149071 BB	20171214	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:CELANESE ACETATE LLC;REEL/FRAME:044869/0827 Owner: ACETATE INTERNATIONAL LLC, TEXAS PartyType: owner Effective date: 20171024
US9149071 BB	20190527	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US9149071 BB	20191111	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	Text: PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US9149071 BB	20191111	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US9149071 BB	20191111	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US9149071 BB	20191203	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20191006
US9149071 BB	20340310	PEXP		Calculated Patent Term Expiry	
US9215894 BB	20140311	LSAS	AS	ASSIGNMENT	Effective date: 20140307 PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:KIZER, LAWTON E.;ROBERTSON, RAYMOND M.;GOU, ZEMING;AND OTHERS;REEL/FRAME:032400/0750 Owner: CELANESE ACETATE LLC, TEXAS
US9215894 BB	20151026	LSES	NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	

US9215894 BB	20151116	LSFE	PPV1	Publications -- Issue Fee Payment Verified	
US9215894 BB	20151202	LSGT	PAT1	Patented Case	
US9215894 BB	20151222	LSGT	+	granted / extensions (spc, cpc, pte)	
US9215894 BB	20161011	LSRE	CC	CERTIFICATE OF CORRECTION	
US9215894 BB	20171214	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:CELANESE ACETATE LLC;REEL/FRAME:044869/0827 Effective date: 20171024 Owner: ACETATE INTERNATIONAL LLC, TEXAS PartyType: owner
US9215894 BB	20190812	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: MAINTENANCE FEE REMINDER MAILED (ORIGINAL EVENT CODE: REM.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US9215894 BB	20200127	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	Text: PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US9215894 BB	20200127	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US9215894 BB	20200127	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US9215894 BB	20200218	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20191222
US9215894 BB	20340311	PEXP		Calculated Patent Term Expiry	
US9788573 BB	20150708	LSAS	AS	ASSIGNMENT	Effective date: 20140307 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:KIZER, LAWTON E.;ROBERTSON, RAYMOND M.;REEL/FRAME:036020/0896 Owner: CELANESE ACETATE LLC, TEXAS PartyType: owner
US9788573 BB	20150902		RFE1	Docketed New Case - Ready for Examination	
US9788573 BB	20170927	LSGT	PAT1	Patented Case	
US9788573 BB	20171017	LSGT	+	granted / extensions (spc, cpc, pte)	
US9788573 BB	20171214	LSAS	AS	ASSIGNMENT	Effective date: 20171024 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:CELANESE ACETATE LLC;REEL/FRAME:044869/0827 Owner: ACETATE INTERNATIONAL LLC, TEXAS PartyType: owner
US9788573 BB	20340601	PEXP		Calculated Patent Term Expiry (PTA 83 days and a terminal disclaimer has been filed)	
UY35389 A1	20141031	LSPB	+	published / reissued	
UY35413 A1	20141031	LSPB	+	published / reissued	
WO14150313 A1	20140311	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 201480013470.X Country of Ref document: CN
WO14150313 A1	20140925	LSPB	+	published / reissued	
WO14150313 A1	20141119		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Kind code of Ref document: A1 Ref document number: 14767621 Country of Ref document: EP

WO14150313 A1	20150717	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 2898661 Country of Ref document: CA
WO14150313 A1	20150824	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: IDP00201505169 Country of Ref document: ID
WO14150313 A1	20150911	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: MX/A/2015/012353 Country of Ref document: MX
WO14150313 A1	20150914	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 2016501103 Country of Ref document: JP
WO14150313 A1	20150914	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO14150313 A1	20150928	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 15229734 Country of Ref document: CO
WO14150313 A1	20151001	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2014767621 Country of Ref document: EP
WO14150313 A1	20151008	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 20157028160 Kind code of Ref document: A Country of Ref document: KR
WO14150313 A1	20151013	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 201591744 Country of Ref document: EA
WO14150313 A1	20151215		REG	REFERENCE TO NATIONAL CODE	Ref document number: 112015021211 Ref country code: BR Ref legal event code: B01A Country of Ref document: BR
WO14150313 A1	20170718	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Effective date: 20150901 Kind code of Ref document: A2 Ref document number: 112015021211 Country of Ref document: BR
WO14164492 A1	20141009	LSPB	+	published / reissued	
WO14164492 A1	20141203		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Kind code of Ref document: A1 Ref document number: 14778123 Country of Ref document: EP
WO14164492 A1	20150626	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 2896773 Country of Ref document: CA
WO14164492 A1	20150728		REG	REFERENCE TO NATIONAL CODE	Ref country code: BR Ref document number: 112015017037 Ref legal event code: B01A Country of Ref document: BR
WO14164492 A1	20150901	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 201591436 Country of Ref document: EA
WO14164492 A1	20150911	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: MX/A/2015/012544 Country of Ref document: MX
WO14164492 A1	20150914	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 2016501007 Country of Ref document: JP
WO14164492 A1	20150914	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO14164492 A1	20150918	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2014778123 Country of Ref document: EP
WO14164492 A1	20151007	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 20157027895 Country of Ref document: KR
WO14164492 A1	20151009	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: IDP00201506407 Country of Ref document: ID
WO14164492 A1	20151013	LSNP	+WWE	WIPO INFORMATION:	Ref document number: 15242403 Country of Ref document: CO

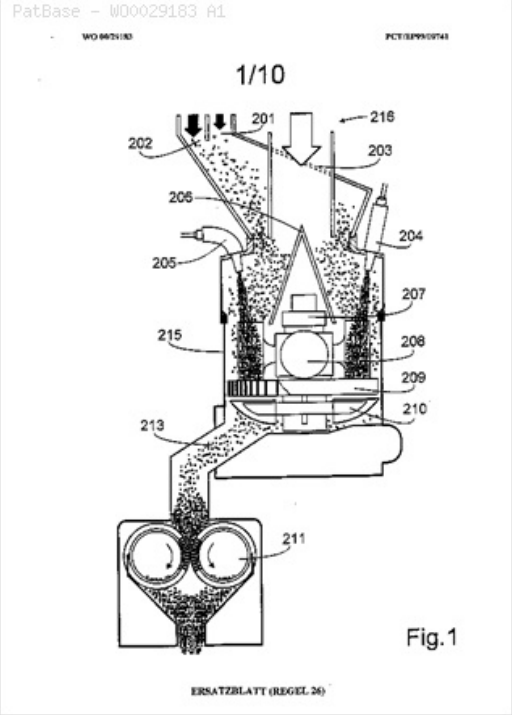
				ENTRY INTO NATIONAL PHASE	
WO14164492 A1	20170711	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Effective date: 20150716 Kind code of Ref document: A2 Ref document number: 112015017037 Country of Ref document: BR

74) Family number: 20699772 (WO0029183 A1)

Title: GRANULATE AND METHOD AND DEVICE FOR THE PRODUCTION THEREOF

Abstract: The invention relates to a granulate and a method and a device for the production thereof. The aim of the invention is to provide a granulate on the basis of regenerative raw materials which is suitable as a material for injection molding and which is widely variable with respect to its mechanical and other physical properties due to the introduction of additives. The inventive method provides a means for producing the granulate without specifically pre-treating the plant parts used. A device is provided for carrying out the inventive method which device may consist of a pre-granulator and a final granulator or only of a pre-granulator. An especially clean-cut granulate can be obtained by the various configurations of the final granulator which can be equipped with counter-rotating matrices or with matrices that rotate one inside the other.

Classifications:
International (IPC 8-9): B01J2/22 B29B9/02 B29B9/06 B29B9/12 B29B9/14 B30B11/22 B30B11/28
International (IPC 1-7): B01J2/22 B29B15/08 B29B7/88 B29B9/06 B29B9/14 B29C70/00 B29K311/10 B30B11/28 B60K37/00 B60R13/02 B60R21/04 C08L23/06 C08L23/12
CPC: B01J2/22 B29B9/06 B29B9/14 B30B11/201 B30B11/221 B30B11/228 B30B11/28



Family:

Publication number	Publication date	Application number	Application date
AU200019758 A1	20000605	AU20000019758	19991112
AU200019758 A5	20000605	AU20000019758	19991112
BRPI9916604 A	20011113	BR1999PI16604	19991112
CA2350760 AA	20010511	CA19992350760	19991112
CZ20011634 A3	20011017	CZ20010001634	19991112
DE19956164 A1	20000525	DE19991056164	19991112
DE29920772 U1	20000406	DE19992020772U	19991112
EP1128941 A1	20010905	EP19990963473	19991112
HU0104341 AB	20020328	HU20010004341	19991112
ID30227 A	20011115	ID20010001261	19991112
PL348146 A1	20020506	PL19990348146	19991112
SK200100648 A5	20011106	SK20010000648	19991112
WO0029183 A1	20000525	WO1999EP09741	19991112
WO0029183 C1	20000908	WO1999EP09741	19991112

Priority:

DE19981054015 19981112 WO1999EP09741 19991112 DE19991056164 19991112 DE19992020772U 19991112

Probable Assignee: FLZ FASER LOGISTIK ZENTRUM SCH

Assignee(s): (std): FLZ FASER LOGISTIK ZENTRUM SCH ; FLZ FASERLOGISTIKZENTRUM GMBH ; JAKWERTH GERHARD

Assignee(s): FLZ FASER LOGISTIK ZENTRUM SCHWARZA GMBH

Inventor(s): (std): JAKWERTH GERHARD

Inventor(s): GERHARD JAKWERTH

Agent(s): MCFADDEN FINCHAM; OSLER HOSKIN AND HARCOURT LLP

Designated states: AE AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CR CU CY CZ DE DK DM EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU200019758 A1	20000605	LSPB	+	published / reissued	
AU200019758 A1	20000928	LSLE	-MK6	APPLICATION	

				LAPSED SECTION 142(2)(F)/REG. 8.3(3) - PCT APPLIC. NOT ENTERING NATIONAL PHASE	
AU200019758 A1	20001026		TH	CORRIGENDA	Text: IN VOL 14, NO 34, PAGE(S) 6038-6040 UNDER THE HEADING APPLICATIONS LAPSED, REFUSED OR WITHDRAWN PLEASE DELETE ALL REFERENCE TO APPLICATION NO. 97568/98, 63579/99, 11440/00, 11867/00, 12897/00 AND 19758/00
AU200019758 A1	20010809	LSLE	-MK6	APPLICATION LAPSED SECTION 142(2)(F)/REG. 8.3(3) - PCT APPLIC. NOT ENTERING NATIONAL PHASE	
BRPI9916604 A	20011113	LSPB	+	published / reissued	
BRPI9916604 A	20040511	LSRV	-B11A	DISMISSAL ACC. ART.33 OF IPL - EXAMINATION NOT REQUESTED WITHIN 36 MONTHS OF FILING	
BRPI9916604 A	20040831	LSRV	-B11Y	DEFINITIVE DISMISSAL ACC. ARTICLE 33 OF IPL - EXTENSION OF TIME LIMIT FOR REQUEST OF EXAMINATION EXPIRED	
CA2350760 AA	20010511	LSPB	+	published / reissued	
CA2350760 AA	20010810	LSES	+EEER	EXAMINATION REQUEST	
CA2350760 AA	20031112	LSLE	-FZDE	DEAD	
CZ20011634 A3	20011017	LSPB	+	published / reissued	
DE19956164 A1	20000525	LSPB	+	published / reissued	
DE19956164 A1	20000525	LSES	+OP8	REQUEST FOR EXAMINATION AS TO PARAGRAPH 44 PATENT LAW	
DE19956164 A1	20010607		8125	CHANGE OF THE MAIN CLASSIFICATION	ClassificationScheme: IPC ClassificationSymbol: B01J 2/20
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DE29920772 U1	20000406	LSGT	+	granted / extensions (spc, cpc, pte)	
DE29920772 U1	20000406	LSGT	R207	UTILITY MODEL SPECIFICATION	Effective date: 20000406
DE29920772 U1	20010309	LSOP	-R165	REQUEST FOR CANCELLATION OR RULING FILED	
DE29920772 U1	20021121		-R169	UTILITY MODEL CANCELLED IN PART	Effective date: 20020829
DE29920772 U1	20030911	LSLE	-R156	LAPSE OF IP RIGHT AFTER 3 YEARS	Effective date: 20030531
DE29920772 U1	20091112	PEXP		Calculated Patent Term Expiry	
EP1128941 A1	20010905	LSPB	+	published / reissued	
EP1128941 A1	20010905	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20010612
EP1128941 A1	20010905		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
EP1128941 A1	20010905		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Text: LT;LV;RO;SI
EP1128941 A1	20021204	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 20021018
EP1128941 A1	20030903	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	Effective date: 20030301
HU0104341 AB	20020328	LSPB	+	published / reissued	
ID30227 A	20011115	LSPB	+	published / reissued	
PL348146 A1	20020506	LSPB	+	published / reissued	

SK200100648 A5	20011106	LSPB	+	published / reissued	
WO0029183 A1	20000525	LSPB	+	published / reissued	
WO0029183 A1	20000525		+AK	DESIGNATED STATES	Kind code of Ref document: A1 Country of Ref document: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
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WO0029183 C1	20000908		+AK	DESIGNATED STATES	Kind code of Ref document: C1 Country of Ref document: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
WO0029183 C1	20000908		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: C1 Country of Ref document: AM AT AZ BE BF BJ BY CF CG CH CI CM CY DE DK ES FI FR GA GB GH GM GN GR GW IE IT KE KG KZ LS LU MC MD ML MR MW NE NL PT RU SD SE SL SN SZ TD TG TJ TM TZ UG ZW
WO0029183 C1	20000908		CFP	CORRECTED VERSION OF A PAMPHLET FRONT PAGE	Text: PUBLISHED FIGURE REPLACED BY CORRECT FIGURE
WO0029183 C1	20000928		DFPE	REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH MONTH FROM PRIORITY DATE (PCT APPLICATION FILED BEFORE 20040101)	
WO0029183 C1	20010509	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: PV2001-1634 Country of Ref document: CZ
WO0029183 C1	20010510	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 6482001 Country of Ref document: SK
WO0029183 C1	20010511	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 2350760 Country of Ref document: CA
WO0029183 C1	20010511	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 1999EP 9909741 Country of Ref document: KE
WO0029183 C1	20010511	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 2350760 Country of Ref document: CA
WO0029183 C1	20010511	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 1999EP9909741 Country of Ref document: KE
WO0029183 C1	20010529	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 09831586 Country of Ref document: US
WO0029183 C1	20010601	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: IN/PCT/2001/584/KOL Country of Ref document: IN
WO0029183 C1	20010612	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 1999963473 Country of Ref document: EP
WO0029183 C1	20010905	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: 1999963473 Country of Ref document: EP
WO0029183 C1	20011017	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: PV2001-1634 Country of Ref document: CZ
WO0029183 C1	20020117	LSWD	REG	REFERENCE TO NATIONAL CODE	Ref country code: DE Ref legal event code: 8642
WO0029183 C1	20021230	LSRV	-WWR	WIPO INFORMATION:	Ref document number: PV2001-1634

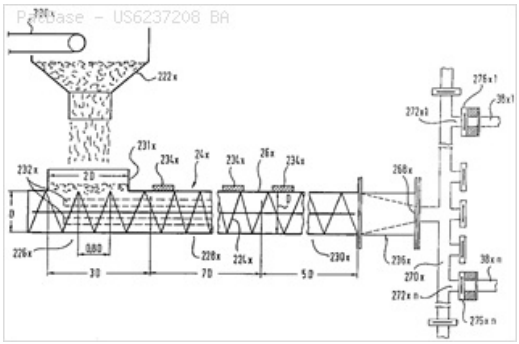
				REFUSED IN NATIONAL OFFICE	Country of Ref document: CZ
WO0029183 C1	20030301	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	Ref document number: 1999963473 Country of Ref document: EP

75) Family number: 30388080 (US6237208 BA)

Title: PROCESS FOR PRODUCING PROFILED MATERIALS, IN PARTICULAR FOR DOOR AND WINDOW PRODUCTION

Abstract: A process for the **manufacture** of section material composed of thermoplastic material, such sections being suitable for the production of door and window jambs and frames. A thermoplastic material component and a second component containing additives are mixed and compacted to form a strand-forming mixture. In so doing, the thermoplastic component is thermally plasticised. The strand-forming mixture is formed into section material, which may then be further machined, shaped and coated to form the final product.

Classifications:
International (IPC 8-9): B27N3/00 B27N3/08 B27N3/28 B29B17/00 B29B7/42 B29C47/00 B29C47/02 B29C47/60 B29C47/64 B29C48/12 B29C48/15 B29C48/67 B29C69/00 B29D31/00 B29D99/00 B32B1/06 B32B15/08 E06B1/04 E06B1/26 E06B3/04 E06B3/20 E06B3/30
International (IPC 1-7): B07B1/300 B07B13/00 B29B17/00 B29C47/00 B29C47/02 B29C47/10 B29C47/52 B29C47/64 B29C47/90 B29C69/00 B29C70/00 B29D31/00 B29K23/00 B29L31/10 B29L9/00 B32B1/00 E06B3/20
CPC: B27N3/007 B27N3/28 B29C2793/00 B29C48/001 B29C48/0022 B29C48/06 B29C48/12 B29C48/154 B29C48/21 B29C69/00 B29D99/0003 E06B3/20 E06B3/30 Y10S264/911 Y10S264/916 Y10S264/918 Y10T29/49751 B29C48/022 B29C48/04 B29K2105/06 B29C48/47 B29C48/535
US: 264/112 264/113 264/115 264/911 264/916 264/918 29/403.1



Family:

Publication number	Publication date	Application number	Application date
AT207006 E	20011115	AT19960930046T	19960816
AT223799 E	20020915	AT19970918986T	19970814
AU199669250 A1	19970312	AU19960069250	19960816
AU199742994 A1	19980306	AU19970042994	19970814
BA96133 A	19981228	BA19960000133	19961024
BRPI9610203 A	19990706	BR1996PI10203	19960816
CZ296283 B6	20060215	CZ19980000827	19960816
CZ82798 A3	19980812	CZ19980000827	19960816
CZ9800827 A3	19980812	CZ19980000827	19960816
DE19530270 A1	19970220	DE19951030270	19950817
DE19680705 D2	19981029	DE19961080705T	19960816
DE59607960 D1	20011122	DE19965007960T	19960816
DE59708207 D1	20021017	DE19975008207T	19970814
EP0848660 A1	19980624	EP19960930046	19960816
EP0848660 B1	20011017	EP19960930046	19960816
EP0921931 A1	19990616	EP19970918986	19970814
EP0921931 B1	20020911	EP19970918986	19970814
HU219845 B	20010828	HU19980002429	19960816
HU9802429 AB	19990128	HU19980002429	19960816
HU9802429 AC	19990301	HU19980002429	19960816
NO980665 A	19980416	NO19980000665	19980217
NO980665 A0	19980217	NO19980000665	19980217
NO980665 L	19980416	NO19980000665	19980217
PL181921 B1	20011031	PL19960325055	19960816
PL325055 A1	19980706	PL19960325055	19960816
PL183807 B1	20020731	PL19970331614	19970814
PL331614 A1	19990802	PL19970331614	19970814
RU2177412 C2	20011227	RU19980104503	19960816
RU98104503 A	20000210	RU19980104503	19980317
TR199800382 T1	19980521	TR19980000382T	19960816
TR9800382 T1	19980521	TR19980000382T	19960816
US6237208 BA	20010529	US19980025119	19980217
WO9706942 A1	19970227	WO1996EP03611	19960816
WO9807559 A1	19980226	WO1997EP04448	19970814

Priority:

DE19951030270 19950817 WO1996EP03611 19960816 DE19961080705T 19960816
DE19965007960T 19960816 WO1997EP04448 19970814 EP19970918986 19970814

Probable Assignee: MEETH

Assignee(s): (std): MEET EHRNST JOZEF ; MEETH ; MEETH ERNST JOSEF

Assignee(s): ERNST JOSEF MEETH ; MEETH ERNST JOSEF 54531 WALLSCHEID DE ; MEETH ERNST JOSEF WALLSCHEID

Inventor(s): (std): MEET EHRNST JOZEF ; MEETH ERNST JOSEF

Inventor(s): ERNST JOSEF MEETH ; MEETH ERNST JOSEF 54531 WALLSCHEID DE

Agent(s): BAKER BOTTS LLP

Designated states: AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CU CZ DE DK EE ES FI FR GB GE GH GR HU IE IL IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MC MD MG MK MN MW MX NL NO NZ PL PT RO RU SD SE SG SI SK SL SZ TJ TM TR TT UA UG US UZ VN YU ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details

AT207006 E	20011115	LSGT	+	granted / extensions (spc, cpc, pte)	
AT207006 E	20100515	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT207006 E	20160816	PEXP		Calculated Patent Term Expiry	
AT223799 E	20020915	LSGT	+	granted / extensions (spc, cpc, pte)	
AT223799 E	20100515	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT223799 E	20170814	PEXP		Calculated Patent Term Expiry	
AU199669250 A1	19970312	LSPB	+	published / reissued	
AU199742994 A1	19980306	LSPB	+	published / reissued	
BA96133 A	19981228	LSPB	+	published / reissued	
BRPI9610203 A	19990706	LSPB	+	published / reissued	
BRPI9610203 A	20031028	LSGT	+FF	DECISION: INTENTION TO GRANT	
BRPI9610203 A	20040330	LSRV	-B11D	DISMISSAL ACC. ART. 38, PAR 2 OF IPL - FAILURE TO PAY FEE AFTER GRANT IN TIME	
BRPI9610203 A	20180327		B15K	OTHERS CONCERNING APPLICATIONS: ALTERATION OF CLASSIFICATION	ClassificationSymbol: B29D 99/00 (2010.01), B27N 3/00 (2006.0 ClassificationScheme: IPC
CZ296283 B6	20060215	LSGT	+	granted / extensions (spc, cpc, pte)	
CZ296283 B6	20110309	LSLE	-MM4A	PATENT LAPSED DUE TO NON-PAYMENT OF FEE	Effective date: 20100816
CZ296283 B6	20160816	PEXP		Calculated Patent Term Expiry	
CZ82798 A3	19980812	LSPB	+	published / reissued	
CZ9800827 A3	19980812	LSPB	+	published / reissued	
CZ9800827 A3	20000630		PD00	PENDING AS OF 2000-06-30 IN CZECH REPUBLIC	
DE19530270 A1	19970220	LSPB	+	published / reissued	
DE19530270 A1	19970220	LSES	+OP8	REQUEST FOR EXAMINATION AS TO PARAGRAPH 44 PATENT LAW	
DE19530270 A1	19981210	LSRV	-8131	REJECTION	
DE19680705 D2	20031113	LSLE	-8141	DISPOSAL/NO REQUEST FOR EXAMINATION	
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DE59708207 D1	20031009	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
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EP0848660 A1	19980624	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 19980317
EP0848660 A1	19980624		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AT BE CH DE DK ES FI FR GB GR IE IT LI NL PT SE
EP0848660 A1	19980624		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Text: LT PAYMENT 980317;LV PAYMENT 980317;SI PAYMENT 980317
EP0848660 A1	19991103	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 19990917
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EP0848660 B1	20011017		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Text: LT PAYMENT 19980317;LV PAYMENT 19980317;SI PAYMENT 19980317
EP0848660 B1	20011017	LSRV	-LTIE	LT: INVALIDATION OF EUROPEAN PATENT OR PATENT EXTENSION	Ref country code: EP
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EP0848660 B1	20011017		REF	CORRESPONDS TO:	Date of Ref document: 20011115 Ref document number: 207006 Kind code of Ref document: T Country of Ref document: AT
EP0848660 B1	20011031	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: EP
EP0848660 B1	20011114	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: FG4D Ref country code: IE Text: GERMAN
EP0848660 B1	20011122		REF	CORRESPONDS TO:	Ref document number: 59607960 Date of Ref document: 20011122 Country of Ref document: DE

EP0848660 B1	20020117	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20020117 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: DK
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EP0848660 B1	20020417	LSWD	-GBV	GB: EP PATENT (UK) TREATED AS ALWAYS HAVING BEEN VOID IN ACCORDANCE WITH GB SECTION 77(7)/1977	Ref country code: EP Effective date: 20011017
EP0848660 B1	20020430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20020430 Country of Ref document: ES
EP0848660 B1	20020816		-EN	FR: TRANSLATION NOT FILED	
EP0848660 B1	20020821	LSWD	REG	REFERENCE TO A NATIONAL CODE	Ref country code: IE Ref legal event code: FD4D
EP0848660 B1	20020831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20020831 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: CH
EP0848660 B1	20020831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20020831 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: LI
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EP0848660 B1	20030415	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: PL Ref country code: CH
EP0848660 B1	20081128	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 13 Payment date: 20080814 Country of Ref document: AT
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EP0848660 B1	20091130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20090814 Year of fee payment: 14 Country of Ref document: NL
EP0848660 B1	20100226	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20090915 Year of fee payment: 14 Country of Ref document: BE

EP0848660 B1	20100630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090816 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: AT
EP0848660 B1	20110228	LSLE	-BERE	BE: LAPSED	Effective date: 20100831 PartyType: owner Owner: *MEETH ERNST JOSEF Ref country code: EP
EP0848660 B1	20110316	LSLE	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20110301 Ref country code: NL Ref legal event code: V1
EP0848660 B1	20110531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20110301 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: NL
EP0848660 B1	20110622	LSDW	REG	REFERENCE TO A NATIONAL CODE	Ref country code: DE Ref document number: 59607960 Ref legal event code: R119 Effective date: 20110301 Country of Ref document: DE
EP0848660 B1	20110729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20100831 Country of Ref document: BE
EP0848660 B1	20110729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20110301 Country of Ref document: DE
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EP0921931 A1	19990616	LSPB	+	published / reissued	
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EP0921931 A1	19990616		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AT BE CH DE DK ES FR GB GR IE IT LI NL PT SE
EP0921931 A1	20010418	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 20010301
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EP0921931 B1	20020911		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: B1 Country of Ref document: AT BE CH DE DK ES FR GB GR IE IT LI NL PT SE
EP0921931 B1	20020911	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20020911 Country of Ref document: FR
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EP0921931 B1	20020913	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: EP Ref country code: CH
EP0921931 B1	20021016	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: FG4D Ref country code: IE Text: GERMAN
EP0921931 B1	20021017		REF	CORRESPONDS TO:	Ref document number: 59708207 Date of Ref document: 20021017 Country of Ref document: DE
EP0921931 B1	20021211	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20021211 Country of Ref document: DK
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EP0921931 B1	20030312	LSWD	-GBV	GB: EP PATENT (UK) TREATED AS ALWAYS HAVING BEEN VOID IN ACCORDANCE WITH GB SECTION 77(7)/1977	Ref country code: EP Effective date: 20020911
EP0921931 B1	20030328	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20030328 Country of Ref document: ES
EP0921931 B1	20030514	LSWD	REG	REFERENCE TO A NATIONAL CODE	Ref country code: IE Ref legal event code: FD4D Ref document number: 0921931E Country of Ref document: IE
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EP0921931 B1	20030831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20030831 Country of Ref document: CH
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EP0921931 B1	20081128	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20080814 Year of fee payment: 12 Country of Ref document: AT
EP0921931 B1	20100630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20090814 Country of Ref document: AT
EP0921931 B1	20101130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20100915 Year of fee payment: 14 Country of Ref document: DE
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EP0921931 B1	20120229	LSLE	-BERE	BE: LAPSED	PartyType: owner Effective date: 20110831 Owner: *MEETH ERNST JOSEF Ref country code: EP
EP0921931 B1	20120314	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: NL Effective date: 20120301 Ref legal event code: V1
EP0921931 B1	20120531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20120301 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: NL
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EP0921931 B1	20120614	LSDW	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: R119 Ref country code: DE Ref document number: 59708207 Effective date: 20120301 Country of Ref document: DE
EP0921931 B1	20130628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20120301 Country of Ref document: DE
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HU219845 B	20010828	LSGT	+	granted / extensions (spc, cpc, pte)	
HU219845 B	20100528	LSLE	-MM4A	LAPSE OF DEFINITIVE PATENT PROTECTION DUE TO NON-PAYMENT OF FEES	
HU219845 B	20160816	PEXP		Calculated Patent Term Expiry	
HU9802429 AB	19990128	LSPB	+	published / reissued	
NO980665 A	19980416	LSPB	+	published / reissued	
NO980665 A	20020708	LSRV	-FC2A	WITHDRAWAL,	

				REJECTION OR DISMISSAL OF LAID OPEN PATENT APPLICATION	
PL181921 B1	20011031	LSGT	+	granted / extensions (spc, cpc, pte)	
PL181921 B1	20111031	LSLE	-LAPS	DECISIONS ON THE LAPSE OF THE PROTECTION RIGHTS	Effective date: 20100816
PL183807 B1	20020731	LSGT	+	granted / extensions (spc, cpc, pte)	
PL183807 B1	20121031	LSLE	-LAPS	DECISIONS ON THE LAPSE OF THE PROTECTION RIGHTS	Effective date: 20110814
PL325055 A1	19980706	LSPB	+	published / reissued	
PL331614 A1	19990802	LSPB	+	published / reissued	
RU2177412 C2	20011227	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2177412 C2	20100720	LSLE	-MM4A	THE PATENT IS INVALID DUE TO NON-PAYMENT OF FEES	Effective date: 20090817
RU2177412 C2	20160816	PEXP		Calculated Patent Term Expiry	
RU98104503 A	20000210	LSPB	+	published / reissued	
TR199800382 T1	19980521	LSPB	+	published / reissued	
TR9800382 T1	19980521	LSPB	+	published / reissued	
US6237208 BA	20010529	LSGT	+	granted / extensions (spc, cpc, pte)	
US6237208 BA	20030225	LSRE	CC	CERTIFICATE OF CORRECTION	
US6237208 BA	20041126	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US6237208 BA	20081126	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US6237208 BA	20130107		REMI	MAINTENANCE FEE REMINDER MAILED	
US6237208 BA	20130529	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6237208 BA	20130624	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6237208 BA	20130624	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6237208 BA	20130716	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20130529
US6237208 BA	20180217	PEXP		Calculated Patent Term Expiry	
WO9706942 A1	19970227	LSPB	+	published / reissued	
WO9706942 A1	19970227		+AK	DESIGNATED STATES	Kind code of Ref document: A1 Country of Ref document: AL AM AT AU AZ BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN
WO9706942 A1	19970227		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: A1 Country of Ref document: AT BE BF BJ CF CG CH CI CM DE DK ES FI FR GB GR IE IT KE LS LU MC MW NL PT SD SE SZ UG
WO9706942 A1	19970327		DFPE	REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH MONTH FROM PRIORITY DATE (PCT APPLICATION FILED BEFORE 20040101)	

WO9706942 A1	19970611		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	
WO9706942 A1	19980217	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 09025119 Country of Ref document: US
WO9706942 A1	19980217	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 1998/00382 Country of Ref document: TR
WO9706942 A1	19980317	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 1996930046 Country of Ref document: EP
WO9706942 A1	19980318	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: PV1998-827 Country of Ref document: CZ
WO9706942 A1	19980624	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: 1996930046 Country of Ref document: EP
WO9706942 A1	19980812	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: PV1998-827 Country of Ref document: CZ
WO9706942 A1	19981029		+REF	CORRESPONDS TO	Date of Ref document: 19981029 Ref document number: 19680705 Country of Ref document: DE
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WO9706942 A1	19990217	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: CA
WO9706942 A1	20011017	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	Ref document number: 1996930046 Country of Ref document: EP
WO9706942 A1	20060215	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	Ref document number: PV1998-827 Country of Ref document: CZ
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WO9807559 A1	19980507		DFPE	REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH MONTH FROM PRIORITY DATE (PCT APPLICATION FILED BEFORE 20040101)	
WO9807559 A1	19980701		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	
WO9807559 A1	19990216	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 1997918986 Country of Ref document: EP
WO9807559 A1	19990604	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref document number: 1998510379 Country of Ref document: JP
WO9807559 A1	19990616	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: 1997918986 Country of Ref document: EP
WO9807559 A1	19991209	LSWD	REG	REFERENCE TO NATIONAL CODE	Ref country code: DE Ref legal event code: 8642

WO9807559 A1	20020911	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	Ref document number: 1997918986 Country of Ref document: EP

76) Family number: 75181327 (US10357936 BA)

Title: INSULATION PANEL

Abstract: An insulation panel has a top barrier, a bottom barrier, and an insulation core layer disposed between to the top and bottom barriers. The insulation core layer includes a plurality of discrete hydrated **compressed** puffed polysaccharide particulates that are mechanically and/or chemically adhered to one another and to the top and bottom barriers. The plurality of discrete particulates defines a plurality of voids within the core layer.



Classifications:
International (IPC 8-9): B32B27/06 B32B3/18 B32B3/26 B32B37/10 B32B7/14 B65D33/02 B65D33/10 B65D5/36 B65D65/46 B65D81/09 B65D81/18 B65D81/38
CPC: B32B15/02 B32B15/12 B32B2250/03 B32B2250/40 B32B2255/10 B32B2255/12 B32B2255/205 B32B2255/26 B32B2262/02 B32B2264/062 B32B2307/304 B32B2307/7163 B32B2307/718 B32B2307/7246 B32B2307/73 B32B2439/40 B32B2607/00 B32B27/06 B32B27/10 B32B29/005 B32B29/007 B32B29/02 B32B29/04 B32B29/06 B32B3/08 B32B3/26 B32B3/266 B32B37/10 B32B5/022 B32B5/16 B32B5/18 B32B7/10 B32B7/12 B65D5/3635 B65D5/3685 B65D5/62 B65D65/406 B65D81/09 B65D81/18 B65D81/3858 B65D81/386 B29B17/0026 B29C2043/483 B29C43/48 B29K2105/26 B29L2007/002 B29L2031/10 B32B3/18 B32B37/24 B32B7/14 B65D81/127 B65D81/3813

Family:

Publication number	Publication date	Application number	Application date
US10357936 BA	20190723	US20170855285	20171227
US10745187 BA	20200818	US20180964927	20180427
US10800131 BA	20201013	US20190421362	20190523
US10800596 BA	20201013	US20190518864	20190722

Priority:

US20170491651P 20170428 US20170491666P 20170428 US20170855285 20171227
US20180964927 20180427 US20190421362 20190523 US20190518864 20190722

Probable Assignee: TEMPERPACK TECH INC

Assignee(s): (std): TEMPERPACK TECH INC ; TEMPERPACK TECHNOLOGIES INC ; TEMPERPAK TECH INC

Assignee(s): PACIFIC WESTERN BANK ; TEMPERPAK TECHNOLOGIES INC ; WESTERN ALLIANCE BANK

Inventor(s): (std): MCGOFF JAMES ; VINCENT CHARLES ALEXANDRE

Agent(s): FORSTNER CHRISTOPHER J; MORRISSETT JOHN A; TROUTMAN PEPPER HAMILTON SANDERS LLP; TROUTMAN SANDERS LLP

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
US10357936 BA	20171227	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10357936 BA	20180122	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10357936 BA	20190702	LSGT	PAT1	Patented Case	
US10357936 BA	20190702	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US10357936 BA	20190723	LSGT	+	granted / extensions (spc, cpc, pte)	
US10357936 BA	20371227	PEXP		Calculated Patent Term Expiry	
US10745187 BA	20180427	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10745187 BA	20180521	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
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US10745187 BA	20200818	LSGT	+	granted / extensions (spc, cpc, pte)	
US10745187 BA	20380427	PEXP		Calculated Patent Term Expiry	
US10800131 BA	20190523	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10800131 BA	20190703	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL); ENTITY STATUS OF PATENT OWNER:

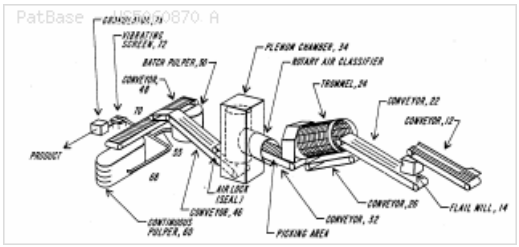
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US10800131 BA	20371227	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US10800596 BA	20190722	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10800596 BA	20190801	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: ENTITY STATUS SET TO SMALL (ORIGINAL EVENT CODE: SMAL); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY
US10800596 BA	20200923	LSGT	PAT1	Patented Case	
US10800596 BA	20201013	LSGT	+	granted / extensions (spc, cpc, pte)	
US10800596 BA	20371227	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	

77) Family number: 11100734 (US5060870 A)

Title: POLYSTYRENE RECYCLING PROCESS

Abstract: The invention comprises a method and apparatus for recycling foamed polystyrene from municipal solid waste and more particularly, from fast food restaurant waste. A steady stream of waste is delivered to a flail mill for reducing particle size, a rotary trommel for eliminating undersized waste and a rotary air classifier for removing "heavy" waste from the stream. At this point, the waste stream comprises mostly **paper** and foamed polystyrene. The **paper** and foamed polystyrene are delivered to a water pulper which fiberizes the **paper** so that it can then be separated from the foamed polystyrene by passing it through a screen of selected mesh size to allow the water and **paper** pulp to pass through while retaining the foamed polystyrene.

Classifications:
International (IPC 8-9): B29B13/10 B29B17/02
International (IPC 1-7): B02C19/12 B02C23/38 B29B
CPC: B29B13/10 B29B17/02 B29B2017/0203 B29B2017/0251 B29K2025/00 B29K2025/06 B29K2105/04 B29K2105/065 B29K2705/00 B29K2711/12 B29L2031/7158 Y02W30/62 Y10S209/93 Y10S241/38
US: 209/930 241/152.2 241/152A 241/19 241/20 241/21 241/23 241/24 241/29 241/46.17 241/60 241/78 241/79 241/79.1 241/DIG.38 241/DIG.038



Family:

Publication number	Publication date	Application number	Application date
US5060870 A	19911029	US19900563835	19900803
US5197678 A	19930330	US19910732062	19910718
WO9100795 A2	19910124	WO1990US03646	19900626
WO9100795 A3	19920514	WO1990US03646	19900626

Priority:
US19890376746 19890707 US19900563835 19900803 US19910732062 19910718

Probable Assignee: WTE CORP
Assignee(s): (std): WTE CORP
Assignee(s): WTE A MA CORP CORP
Inventor(s): (std): GRUBBS MICHAEL ; GRUBBS MICHAEL R ; STANCZYK MARTIN ; TREZEK GEORGE
Designated states: AT BE CH DE DK ES FR GB IT JP LU NL SE

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
US5060870 A	19910828	LSGT	PAT1	Patented Case	
US5060870 A	19911029	LSGT	+	granted / extensions (spc, cpc, pte)	
US5060870 A	19950320	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5060870 A	19990525		REMI	MAINTENANCE FEE REMINDER MAILED	
US5060870 A	19991031	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5060870 A	20000111	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 19991029
US5060870 A	20100803	PEXP		Calculated Patent Term Expiry	
US5060870 A	20180127	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5060870 A	20180127	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US5197678 A	19910718	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST.;ASSIGNORS:TREZEK, GEORGE;STANCZYK, MARTIN;GRUBBS, MICHAEL;REEL/FRAME:005821/0207;SIGNING DATES FROM 19910610 TO 19910709 Owner: WTE CORPORATION, A MA CORP., MASSACHUSETTS PartyType: owner
US5197678 A	19930318	LSGT	PAT1	Patented Case	
US5197678 A	19930330	LSGT	+	granted / extensions (spc, cpc, pte)	
US5197678 A	19961018	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4

US5197678 A	19961018		+SULP	SURCHARGE FOR LATE PAYMENT	
US5197678 A	19961105		REMI	MAINTENANCE FEE REMINDER MAILED	
US5197678 A	20001024		REMI	MAINTENANCE FEE REMINDER MAILED	
US5197678 A	20010401	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5197678 A	20010605	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20010330
US5197678 A	20110718	PEXP		Calculated Patent Term Expiry	
US5197678 A	20180127	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5197678 A	20180127	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
WO9100795 A2	19910124	LSPB	+	published / reissued	
WO9100795 A2	19910124		+AK	DESIGNATED STATES	Kind code of Ref document: A2 Country of Ref document: JP
WO9100795 A2	19910124		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: A2 Country of Ref document: AT BE CH DE DK ES FR GB IT LU NL SE
WO9100795 A3	19920514		+AK	DESIGNATED STATES	Kind code of Ref document: A3 Country of Ref document: JP
WO9100795 A3	19920514		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: A3 Country of Ref document: AT BE CH DE DK ES FR GB IT LU NL SE

78) Family number: 52340522 (CU22791 A3)

Title: TRANSFORMATION PROCESS FOR MUNICIPAL WASTE COLD AND / OR MUD IN INERT MATERIALS, PLANT FOR IMPLEMENTING SAID PROCESS AND PRODUCTS OBTAINED (Machine translation)

Abstract: Source: CU22791 A3 **Machine translation:** The invention relates to the transformation process in cold pair of urban solid waste and / or sludge to form inert materials, comprising the steps of:-**feed** the urban solid waste and / or sludge from respective **feed** lines; -insert materials within a micronizer in order to reduce the granulometry and to recover water contained therein;-add CaO in an amount of between 5 and 10 percent by weight of the main component;-add CaCO3 in an amount between 5 and 10 percent by weight of the main component;-add a polymeric additive in an amount of between 3 and 10 percent by weight of the main component;-transporting passage haccia product conformation and storage. The invention also relates to a plant for carrying out the above process and products obtained.

Classifications:
International (IPC 8-9): B09B3/00 C02F11/00 C04B18/30
International (IPC 1-7): B09B3/00 C02F11/00 C04B18/30
CPC: Y02W30/91

Family:

Publication number	Publication date	Application number	Application date
CU22791 A3	20020724	CU19990000189	19991105

Priority:

CU19990000189 19991105

Probable Assignee: BERNABEI RAFFAELLO

Assignee(s): (std): BERNABEI RAFFAELLO

Inventor(s): (std): BERNABEI RAFFAELLO

Legal status (INPADOC)

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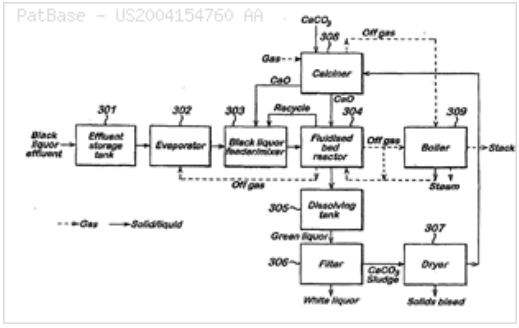
Patent	Date recorded	Event group	Code	Event	Details
CU22791 A3	20020724	LSGT	+	granted / extensions (spc, cpc, pte)	
CU22791 A3	20091105	PEXP		Calculated Patent Term Expiry	

79) Family number: 15829973 (US2004154760 AA)

Title: **PAPER** PLANT - METHOD AND APPARATUS FOR PRODUCING PULP FROM CELLULOSIC FIBROUS RAW MATERIALS AND RECOVERING CHEMICALS AND ENERGY FROM PULP LIQUORS

Abstract: The invention includes a treatment apparatus for treating fibrous cellulosic raw material suitable for use in a **paper** making plant comprising extracting means for extracting contrary material from the raw material, crushing means for crushing the raw material to remove nodes therefrom and splitting means for splitting the crushed raw material lengthways. A co-rotating twin **screw** **conveyor** is used to pulp the crushed material, the **conveyor** being divided up into a plurality of zones, means for inserting treatment materials into a least one zone and means for controlling the temperature and/or pressure of all of the zones. The black liquor effluent produced in the pulping process is treated in an apparatus comprising an evaporator for concentrating the liquor to 30-70 percent solids, a processing vessel for treating the concentrated liquor at a temperature of between 300-600 degrees centigrade, and a closed **conveyor** for transporting the concentrated liquor from the evaporator to the processing vessel in excess of 90 degrees centigrade The invention also includes the method involved in using the above apparatus.

Classifications:
International (IPC 8-9): B01J8/18 C01B3/00 D21B1/00 D21C1/00 D21C1/02 D21C11/00 D21C11/04 D21C11/06 D21C11/10 D21C11/12 D21C3/00 D21C3/02 D21C3/22 D21C3/26 D21C5/00 D21C7/00 D21C9/10
International (IPC 1-7): C08 D01B1/14 D21B1/00 D21C11/00 D21C11/12 D21C3/02 D21C3/26 D21C7/00
CPC: D21C11/0042 D21C7/00 Y02P40/40 Y02P70/10 D21C11/0092 D21C11/106 D21C3/02 D21C3/226 D21C11/125 D21C5/00
US: 162/18 162/18S 162/239 162/239S 162/30.1 162/30.100S 162/301 162/37 162/37P 162/47 162/47S 162/68 162/68S



Family:

Publication number	Publication date	Application number	Application date
AU2002313544 AA	20030224	AU20020313544	20020807
CA2455187 AA	20040126	CA20022455187	20020807
CA2544426 AA	20060501	CA20042544426	20041103
CN1313195 C	20070502	CN20028017466	20020807
CN1636091 A	20050706	CN20028017466	20020807
CN1886552 A	20061227	CN200480034794	20041103
CN1886552 B	20110126	CN200480034794	20041103
EP1448845 A2	20040825	EP20020753138	20020807
EP1680542 A1	20060719	EP20040798714	20041103
GB200119237 A0	20011003	GB20010019237	20010807
GB200325578 A0	20031203	GB20030025578	20031103
IN00245DN2004 A	20060310	IN2004DN00245	20040204
IN02307DN2006 A	20070413	IN2006DN02307	20060426
IN238239 B	20100205	IN2006DN02307	20060426
JP2007510814 T2	20070426	JP20060537447T	20041103
RU2004106616 A	20050227	RU20040106616	20020807
RU2342477 C2	20081227	RU20040106616	20020807
RU2006119475 A	20071227	RU20060119475	20041103
RU2348749 C2	20090310	RU20060119475	20041103
US2004154760 AA	20040812	US20040773870	20040206
US2006201641 AA	20060914	US20060416944	20060503
WO03014467 A2	20030220	WO2002GB03641	20020807
WO03014467 A3	20040422	WO2002GB03641	20020807
WO05045126 A1	20050519	WO2004GB50023	20041103

Priority:

GB20010019237 20010807 WO2002GB03641 20020807 GB20030025578 20031103
US20040773870 20040206 WO2004GB50023 20041103 US20060416944 20060503

Probable Assignee: BIOREGIONAL MINIMILLS UK LTD

Assignee(s): (std): BAJORIDZHENL MINIMILLZ JU KEJ ; BIOREGIONAL MINIMILLS UK LTD ; DEAN TREVOR ; HARRIS ANDREW TIMOTHY

Assignee(s): BAJORIDZHENL MINIMILLZ JU KEJ LIMITED ; BAJORIDZHENL MINIMILLZ JU KEJ LTD ; BIOREGIONAL MINIMILLS (UK) LIMITED ; BIOREGIONAL MINIMILLS (UK) LTD ; BIOREGIONAL MINIMILLS LTD ; BIOREGIONAL MINIMILLS UK LIMITED ; DEAN TREVOR WILLIAM RIDGLEY

Inventor(s): (std): DEAN TREVOR ; DEAN TREVOR W R ; DEAN TREVOR WILLIAM RIDGLEY ; DIN TREVOR ; DIN TREVOR VILL JAM RIDZHLI ; HARRIS ANDREW T ; HARRIS ANDREW T DEAN TREVOR W ; HARRIS ANDREW TIMOTHY ; KHARRIS EHNDRJU TIMOTI ; TREVOR DEAN

Inventor(s): ANDREW TIMOTHY HARRIS ; DIN TREVOR VILL'JAM RIDZHLI ; HARRIS ANDREW ; TREVOR WILLIAM RIDGLEY DEAN

Agent(s): BAKER AND BOTTS; MCFADDEN FINCHAM; OSLER HOSKIN AND HARCOURT LLP; OSUGA YOSHIYUKI

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details

AU2002313544 AA	20030224	LSPB	+	published / reissued	
AU2002313544 AA	20040506	LSLE	-MK6	APPLICATION LAPSED SECTION 142(2)(F)/REG. 8.3(3) - PCT APPLIC. NOT ENTERING NATIONAL PHASE	
CA2455187 AA	20040126	LSPB	+	published / reissued	
CA2455187 AA	20070523	LSES	+EEER	EXAMINATION REQUEST	
CA2455187 AA	20101222	LSLE	-FZDE	DEAD	
CA2544426 AA	20060501	LSPB	+	published / reissued	
CA2544426 AA	20101103	LSLE	-FZDE	DEAD	
CN1313195 C	20070502	LSGT	+	granted / extensions (spc, cpc, pte)	
CN1313195 C	20070502	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN1313195 C	20161005	LSWD	-EXPY	TERMINATION OF PATENT RIGHT OR UTILITY MODEL	
CN1313195 C	20220807	PEXP		Calculated Patent Term Expiry	
CN1636091 A	20050706	LSPB	+	published / reissued	
CN1636091 A	20050706	LSPB	+C06	PUBLICATION	
CN1636091 A	20050831		C10	ENTRY INTO SUBSTANTIVE EXAMINATION	
CN1886552 A	20061227	LSPB	+	published / reissued	
CN1886552 A	20061227	LSPB	+C06	PUBLICATION	
CN1886552 A	20070214		C10	ENTRY INTO SUBSTANTIVE EXAMINATION	
CN1886552 A	20110126	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN1886552 A	20161221	LSWD	-EXPY	TERMINATION OF PATENT RIGHT OR UTILITY MODEL	
CN1886552 B	20110126	LSGT	+	granted / extensions (spc, cpc, pte)	
CN1886552 B	20241103	PEXP		Calculated Patent Term Expiry	
EP1448845 A2	20040825	LSPB	+	published / reissued	
EP1448845 A2	20040825	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20040203
EP1448845 A2	20040825		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A2 Country of Ref document: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR
EP1448845 A2	20040825		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Country of Ref document: AL LT LV MK RO SI
EP1448845 A2	20090513	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 20090415
EP1448845 A2	20120328	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	Effective date: 20110930
EP1680542 A1	20060719	LSPB	+	published / reissued	
EP1680542 A1	20060719	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20060424
EP1680542 A1	20060719		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LU MC NL PL PT RO SE SI SK TR
EP1680542 A1	20070207		DAX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	

				(DELETED)	
EP1680542 A1	20070509	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 20070405
EP1680542 A1	20121128	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	Effective date: 20120601
GB200119237 A0	20021204	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
GB200325578 A0	20050323	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
IN00245DN2004 A	20060310	LSPB	+	published / reissued	
IN02307DN2006 A	20070413	LSPB	+	published / reissued	
IN238239 B	20100205	LSGT	+	granted / extensions (spc, cpc, pte)	
IN238239 B	20260426	PEXP		Calculated Patent Term Expiry	
JP2007510814 T2	20070426	LSPB	+	published / reissued	
JP2007510814 T2	20070914	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	Effective date: 20070913 Text: JAPANESE INTERMEDIATE CODE: A621
JP2007510814 T2	20100427		A977	REPORT ON RETRIEVAL	Effective date: 20100427 Text: JAPANESE INTERMEDIATE CODE: A971007
JP2007510814 T2	20100512	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Effective date: 20100511 Text: JAPANESE INTERMEDIATE CODE: A131
JP2007510814 T2	20110427	LSRV	-A02	DECISION OF REFUSAL	Effective date: 20110426 Text: JAPANESE INTERMEDIATE CODE: A02
RU2004106616 A	20050227	LSPB	+	published / reissued	
RU2004106616 A	20070627	LSWD	-FA92	ACKNOWLEDGEMENT OF APPLICATION WITHDRAWN (LACK OF SUPPLEMENTARY MATERIALS SUBMITTED)	Effective date: 20070521
RU2004106616 A	20080710	LSRE	+FZ9A	APPLICATION NOT WITHDRAWN (CORRECTION OF THE NOTICE OF WITHDRAWAL)	Effective date: 20080515
RU2006119475 A	20071227	LSPB	+	published / reissued	
RU2342477 C2	20081227	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2342477 C2	20140627	LSLE	-MM4A	THE PATENT IS INVALID DUE TO NON-PAYMENT OF FEES	Effective date: 20130808
RU2342477 C2	20220807	PEXP		Calculated Patent Term Expiry	
RU2348749 C2	20090310	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2348749 C2	20140820	LSLE	-MM4A	THE PATENT IS INVALID DUE TO NON-PAYMENT OF FEES	Effective date: 20131104
RU2348749 C2	20241103	PEXP		Calculated Patent Term Expiry	
US2004154760 AA	20040206	LSAS	AS	ASSIGNMENT	Effective date: 20040120 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:DEAN, TREVOR;REEL/FRAME:014973/0684 Owner: BIOREGIONAL MINIMILLS (UK) LIMITED, UNITED KINGDOM PartyType: owner
US2004154760 AA	20040812	LSPB	+	published / reissued	

US2004154760 AA	20070402	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2004154760 AA	20070402		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2006201641 AA	20060503	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:HARRIS, ANTHONY TIMOTHY;DEA, TREVOR WILLIAM RIDGLEY;REEL/FRAME:017861/0962;SIGNING DATES FROM 20060419 TO 20060420 Owner: BIOREGIONAL MINIMILLS (UK) LIMITED, GREAT BRITAIN PartyType: owner
US2006201641 AA	20060721	LSAS	AS	ASSIGNMENT	OldParty: CORRECTIVE ASSIGNMENT TO CORRECT THE ASSIGNORS' NAMES PREVIOUSLY RECORDED ON REEL 017861 FRAME 0962;ASSIGNORS:HARRIS, ANDREW TIMOTHY;DEAN, TREVOR WILLIAM RIDGLEY;REEL/FRAME:017976/0778;SIGNING DATES FROM 20060419 TO 20060420 Owner: BIOREGIONAL MINIMILLS (UK) LIMITED, UNITED KINGDOM PartyType: owner
US2006201641 AA	20060914	LSPB	+	published / reissued	
US2006201641 AA	20100426	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2006201641 AA	20100426		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
WO03014467 A2	20030220	LSPB	+	published / reissued	
WO03014467 A2	20030220		+AK	DESIGNATED STATES	Kind code of Ref document: A2 Country of Ref document: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW
WO03014467 A2	20030220		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: A2 Country of Ref document: AM AT AZ BE BF BG BJ BY CF CG CH CI CM CY CZ DE DK EE ES FI FR GA GB GH GM GN GQ GR GW IE IT KE KG KZ LS LU MC MD ML MR MW MZ NE NL PT RU SD SE SK SL SN SZ TD TG TJ TM TR TZ UG ZM ZW
WO03014467 A2	20030416		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	
WO03014467 A2	20030515		DFPE	REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH MONTH FROM PRIORITY DATE (PCT APPLICATION FILED BEFORE 20040101)	
WO03014467 A2	20040126	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2455187 Country of Ref document: CA
WO03014467 A2	20040203	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2002753138 Country of Ref document: EP
WO03014467 A2	20040204	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 245/DELNP/2004 Country of Ref document: IN
WO03014467 A2	20040206	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 10773870 Country of Ref document: US
WO03014467 A2	20040305	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 20028174666 Country of Ref document: CN
WO03014467 A3	20040624	LSWD	REG	REFERENCE TO NATIONAL CODE	Ref country code: DE Ref legal event code: 8642
WO03014467 A3	20040825	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: 2002753138 Country of Ref document: EP
WO03014467 A3	20060510	LSNE	NENP	NON-ENTRY INTO THE NATIONAL	Ref country code: JP

				PHASE	
WO03014467 A3	20060510	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	Text: JP
WO05045126 A1	20041103	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 200480034794.8 Country of Ref document: CN
WO05045126 A1	20050519	LSPB	+	published / reissued	
WO05045126 A1	20050519		+AK	DESIGNATED STATES	Kind code of Ref document: A1 Country of Ref document: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
WO05045126 A1	20050519		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: A1 Country of Ref document: AM AT AZ BE BF BG BJ BW BY CF CG CH CI CM CY CZ DE DK EE ES FI FR GA GB GH GM GN GQ GR GW HU IE IS IT KE KG KZ LS LU MC MD ML MR MW MZ NA NE NL PL PT RO RU SD SE SI SK SL SN SZ TD TG TJ TM TR TZ UG ZM ZW
WO05045126 A1	20050713		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	
WO05045126 A1	20060424	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2004798714 Country of Ref document: EP
WO05045126 A1	20060426	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2307/DELNP/2006 Country of Ref document: IN
WO05045126 A1	20060501	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2544426 Country of Ref document: CA
WO05045126 A1	20060501	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2006537447 Country of Ref document: JP
WO05045126 A1	20060518		DPEN	REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH MONTH FROM PRIORITY DATE (PCT APPLICATION FILED FROM 20040101)	
WO05045126 A1	20060605	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2006119475 Country of Ref document: RU
WO05045126 A1	20060719	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: 2004798714 Country of Ref document: EP

80) Family number: 66712323 (US2017238572 AA)

Title: BUTTER PRODUCTS AND METHODS OF FORMING AND PACKAGING SAME

Abstract: Methods involve packaging butter sticks by adding unformed butter to an **extruder**, where the **extruder** shapes the butter into defined dimensions, cutting the **extruded** butter at a desired length to form butter sticks, cooling the butter sticks, and flow-wrapping the cooled butter sticks within an adhesive film. Systems for packaging butter sticks involve an **extruder**, a cutting device, a cooling device and a flow-wrapping device, where the **extruder** shapes unformed butter into defined dimensions, the cutting device slices the **extruded** butter into butter sticks, the cooling device increases a firmness level of the butter sticks, and the flow-wrapping device packages the butter sticks within a sealed, adhesive film. The **extruder**, the cutting device, the cooling device and the flow-wrapping device may be connected.

Classifications:
International (IPC 8-9): A23C15/18 A23P30/20 A47J9/00
CPC: A01J21/02 A23C15/12 A23P30/20 A47J9/002
US: 1/1 426/392

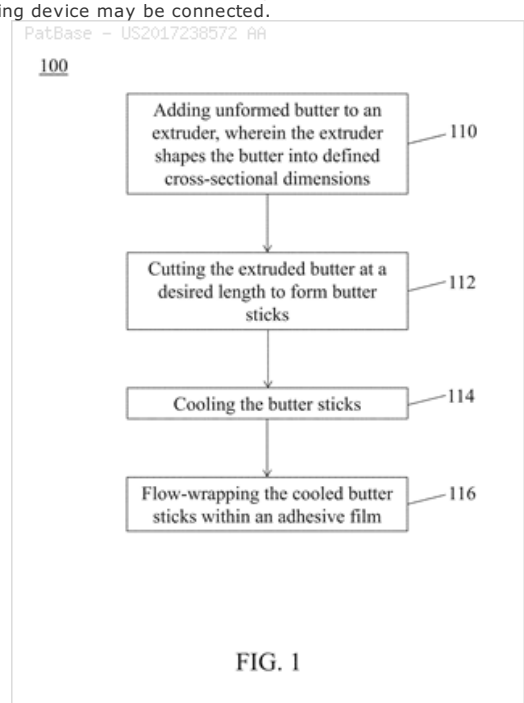


FIG. 1

Family:

Publication number	Publication date	Application number	Application date
US2017238572 AA	20170824	US20170440994	20170223

Priority:
US20160299350P 20160224 US20170440994 20170223

Probable Assignee: LAND O LAKES INC
Assignee(s): (std): LAND O LAKES INC
Inventor(s): (std): DANENBERG BENJAMIN R ; DINESEN RICHARD

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
US2017238572 AA	20170522	LSAS	AS	ASSIGNMENT	Effective date: 20170329 Owner: LAND O'LAKES, INC., MINNESOTA PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:DANENBERG, BENJAMIN R.;DINESEN, RICHARD;REEL/FRAME:042458/0705
US2017238572 AA	20170606		RFE1	Docketed New Case - Ready for Examination	
US2017238572 AA	20170824	LSPB	+	published / reissued	
US2017238572 AA	20181218		FRM1	Final Rejection Mailed	
US2017238572 AA	20190320		RFE1	Docketed New Case - Ready for Examination	
US2017238572 AA	20190320		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: DOCKETED NEW CASE - READY FOR EXAMINATION
US2017238572 AA	20190403	LSES	NFA1	Non Final Action Mailed	

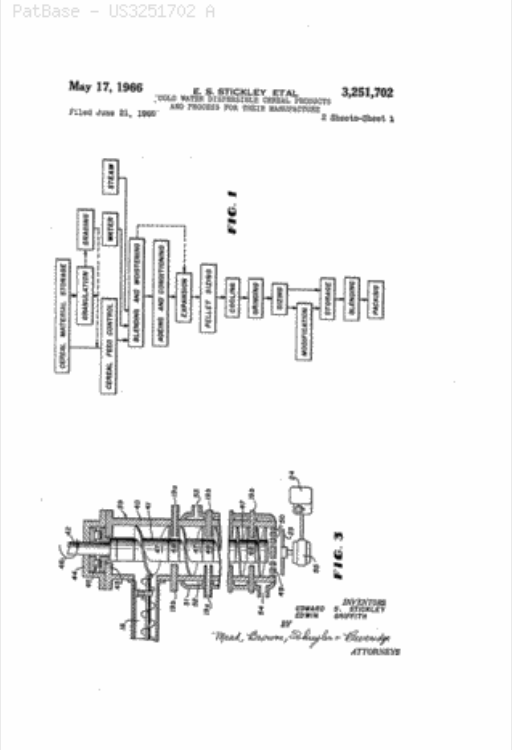
US2017238572 AA	20190403		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: NON FINAL ACTION MAILED
US2017238572 AA	20190724		FRM1	Final Rejection Mailed	
US2017238572 AA	20190724		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: FINAL REJECTION MAILED
US2017238572 AA	20191028		RFE1	Docketed New Case - Ready for Examination	
US2017238572 AA	20191028		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: DOCKETED NEW CASE - READY FOR EXAMINATION
US2017238572 AA	20191114	LSES	NFA1	Non Final Action Mailed	
US2017238572 AA	20191114		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: NON FINAL ACTION MAILED
US2017238572 AA	20200115		RSP4	Response to Non-Final Office Action Entered and Forwarded to Examiner	
US2017238572 AA	20200115		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: RESPONSE TO NON-FINAL OFFICE ACTION ENTERED AND FORWARDED TO EXAMINER
US2017238572 AA	20200513		FRM1	Final Rejection Mailed	
US2017238572 AA	20200513		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: FINAL REJECTION MAILED
US2017238572 AA	20200704		RSP1	Response after Final Action Forwarded to Examiner	
US2017238572 AA	20200704		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: RESPONSE AFTER FINAL ACTION FORWARDED TO EXAMINER
US2017238572 AA	20201019	LSES	NFA1	Non Final Action Mailed	
US2017238572 AA	20201019		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: NON FINAL ACTION MAILED
US2017238572 AA	20201122		RSP4	Response to Non-Final Office Action Entered and Forwarded to Examiner	

81) Family number: 22294314 (US3251702 A)

Title: COLD WATER DISPERSIBLE CEREAL PRODUCTS AND PROCESS FOR THEIR **MANUFACTURE**

Abstract: (Claim 1) 1. The process of making a cereal product -from a starch-bea-ring cereal material, said product having a cold water solubility of from ab out 50 to 75%, having a bulk densi-ty of about 40-45 1,bs. per cubic foot, and having a hi.-_h water sorptive capacity of from 13. to 20, consisting essen,tiary of the steps of bringing the -moisture dontent of said material io about 15 to 40% by weight of said ma,terial, compressijqg and shearing said moistened material into a compacted plastic mass wherein the cereal tissue is dis'mtegrated while maintaining said mass at a temperature of at least 100' C. and a pressure sufficient to maintain the water therein in a condensed state, said pressure be,ing less than about 300 p.s.i.g., rapidly decreasing said pressi.ire _to vaporize said water within said plastic mass to expand said mass into a substantially rigid porous foamed ribbon, and conuninuting said xibbon to powdered form.

Classifications:
International (IPC 8-9): A23L1/18 C08B30/00 C08B30/16
International (IPC 1-7): A23L1/10 C09J3/06
CPC: A23L7/17 C08B30/16
US: 106/122 106/125.1 426/454 426/626



Family:

Publication number	Publication date	Application number	Application date
US3251702 A	19660517	US19600037765	19600621

Priority:
US19600037765 19600621

Probable Assignee:	GRAIN PRODUCTS INC
Assignee(s): (std):	GRAIN PRODUCTS INC
Inventor(s): (std):	EDWIN GRIFFITH ; STICKLEY EDWARD S
Inventor(s):	GRIFFITH EDWIN

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US3251702 A	19660517	LSGT	+	granted / extensions (spc, cpc, pte)	

82) Family number: 50071813 (US2011296748 AA)

Title: METHODS FOR THE **MANUFACTURE** OF FUEL PELLETS AND OTHER PRODUCTS FROM LIGNOCELLULOSIC BIOMASS

Abstract: The present invention is directed to a method for producing products, such as fuel pellets, from lignocellulosic biomass. Lignocellulosic biomass having a moisture content of less than about 30 percent by weight is introduced into a reactor. A vacuum of less than about 500 torr is applied to the reactor. Steam having a temperature of between about 180 degrees centigrade and about 235 degrees centigrade is injected into the reactor. The biomass is maintained in the reactor between about 1 and about 12 minutes. The treated biomass having a moisture content less than about 30 percent by weight is removed from the reactor. Treated biomass is formed into a pellet.

Classifications:
International (IPC 8-9): A23K A23K1/00 A23K1/12 A23K1/14 A23K1/16 A23K1/18 A23K10/32 B01J B01J3/00 B01J31/02 B09B3/00 B30B B30B11/22 C10B C10B53/02 C10L C10L5/02 C10L5/36 C10L5/40 C10L5/44 C10L9/08 C10L9/10 C12N C12P7/10 D21B1/02 D21B1/16 D21C D21C1/02 D21C1/04
International (IPC 1-7): B01J31/02 B30B11/22 C10B53/02 C10L5/02 C10L5/40
CPC: A23K10/30 C10L5/363 C10L5/442 C10L9/08 C10L9/10 C12P7/10 D21B1/02 D21B1/16 D21C1/02 D21C1/04 D21C3/222 Y02E50/10 Y02E50/30
US: 426/511 426/648 44/605 44/605P

Family:

Publication number	Publication date	Application number	Application date
AU2011263435 AA	20130110	AU20110263435	20110608
AU2011264855 AA	20130110	AU20110264855	20110608
AU2011264855 BB	20161110	AU20110264855	20110608
BR112012031213 A2	20160823	BR20121131213	20110608
BR112012031433 A2	20161108	BR20121131433	20110608
BR112012031433 B1	20181113	BR20121131433	20110608
CA2802014 AA	20121207	CA20112802014	20110608
CA2802058 AA	20121207	CA20112802058	20110608
CL2012003469 A1	20130419	CL20120003469	20121207
CL55972 B	20180516	CL20120003469	20121207
CO6670551 A2	20130515	CO20130002294	20130108
DE602011018084 D1	20150903	DE201160018084T	20110608
DK2580307 T3	20151026	DK20110793112T	20110608
EA024805 B1	20161031	EA20120091296	20110608
EA201291296 A1	20130830	EA20120091296	20110608
EA201291297 A1	20130830	EA20120091297	20110608
EA201690792 A1	20161230	EA20160090792	20110608
EP2579730 A2	20130417	EP20110776231	20110608
EP2580307 A2	20130417	EP20110793112	20110608
EP2580307 A4	20140416	EP20110793112	20110608
EP2580307 B1	20150722	EP20110793112	20110608
EP2952560 A1	20151209	EP20150177364	20110608
ES2549920 T3	20151103	ES20110793112T	20110608
HK1184025 A1	20140117	HK20130111726	20131017
HK1184185 A1	20140117	HK20130111727	20131017
HK1184185 B	20160610	HK20130111727	20131017
HK1218764 A1	20170310	HK20160106694	20160610
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IN307675 B	20190222	IN2012DN11146	20121221
IN11194DN2012 A	20160205	IN2012DN11194	20121224
JP2013539959 T2	20131031	JP20130513780T	20110608
JP2013538240 T2	20131010	JP20130514345T	20110608
JP2016166367 A2	20160915	JP20160085565	20160421
JP2018048333 A2	20180329	JP20170194642	20171004
KR20130127414 A	20131122	KR20137000408	20110608
MX2012014353 A1	20130318	MX20120014353	20110608
MX2012014374 A1	20130325	MX20120014374	20110608
MY159590 A	20170113	MY20120005312	20110608
NZ604136 A	20150227	NZ20110604136	20110608
PL2580307 T3	20151231	PL20110793112T	20110608
PT2580307 T	20151102	PT20110793112T	20110608
TH134117 A	20140529	TH20121006393	20110608
TH132183 A	20140401	TH20121006396	20110608
TR201513193 T4	20151123	TR20150013193T	20110608
UA112293 C2	20160825	UA20120014818	20110608
US2011296748 AA	20111208	US20110156271	20110608
US2013209657 AA	20130815	US20110702910	20110608
WO11154845 A2	20111215	WO2011IB01962	20110608
WO11154845 A3	20120802	WO2011IB01962	20110608
WO11154847 A2	20111215	WO2011IB01974	20110608
WO11154847 A3	20120907	WO2011IB01974	20110608
WO11156515 A2	20111215	WO2011US39664	20110608
WO11156515 A3	20120419	WO2011US39664	20110608
ZA201209598 A	20130828	ZA20120009598	20121218
ZA201209599 A	20130828	ZA20120009599	20121218

Priority:

US20100352579P 20100608
EP20110793112 20110608
US20110156271 20110608
WO2011IB01962 20110608
JP20130514345T 20110608
US20110702910 20110608
WO2011US39664 20110608
JP20160085565 20110608
JP20160085565 20160421

Probable Assignee: ZILKHA BIOMASS TECHNOLOGIES LLC

Assignee(s): (std): HARRIS KENNETH HILLEI PETER ; HARRIS KENNETH HILLEL ; HARRIS KENNETH HILLEL PETER ; KENNETH HILLEL PETER HARRIS ; NHARRIS KENNETH HILLEL PETER ; ZILKHA BIOMASS FUELS I LLC ; ZILKHA BIOMASS FUELS LLC ; ZILKHA BIOMASS TECH LLC ; ZILKHA BIOMASS TECHNOLOGIES LLC

Assignee(s): HILLEL PETER HARRIS KENNETH ; ZILKHA BIOMASS TECHNOLOGIES LLC HOUSTON

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Inventor(s): HILLEL PETER HARRIS KENNETH ; HILLEL PETER KENNETH HARRIS

Agent(s): CHINA PATENT AGENT HK LTD; KEEN CELIA MARY; KRAUS AND WEISERT PATENTANWAELTE PARTGMBB; LUZ CLEMENCIA DE PAEZ; MATSUYAMA TAKAO; NICHOLLS MICHAEL JOHN; RIDOUT AND MAYBEE LLP; SARGENT AND KRAHN; SMITH MICHAEL H; SMOORENBURG PATENT AND TRADE MARK ATTORNEYS; UEBA HIDETOSHI; UNGRIA JAVIER; WILKINSON AND GRIST; YESIM METIN; ZACCO NORWAY AS

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU2011263435 AA	20111215	LSPB	+	published / reissued	
AU2011263435 AA	20160107	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
AU2011264855 AA	20111215	LSPB	+	published / reissued	
AU2011264855 AA	20150312	LSAS	PC1	ASSIGNMENT BEFORE GRANT (SECT. 113)	Owner: ZILKHA BIOMASS FUELS I LLC PartyType: owner OldParty: FORMER APPLICANT(S): ZILKHA BIOMASS FUELS LLC
AU2011264855 AA	20150917	LSAS	PC1	ASSIGNMENT BEFORE GRANT (SECT. 113)	Owner: ZILKHA BIOMASS TECHNOLOGIES LLC PartyType: owner OldParty: FORMER APPLICANT(S): ZILKHA BIOMASS FUELS I LLC
AU2011264855 BB	20161110	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2011264855 BB	20170309	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2011264855 BB	20180118	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU2011264855 BB	20310608	PEXP		Calculated Patent Term Expiry	
BR112012031213 A2	20160823	LSPB	+	published / reissued	
BR112012031213 A2	20160913	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	Text: REFERENTE A 5A ANUIDADE.
BR112012031213 A2	20170110	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	Text: EM VIRTUDE DO ARQUIVAMENTO PUBLICADO NA RPI 2384 DE 13-09-2016 E CONSIDERANDO AUSENCIA DE MANIFESTACAO DENTRO DOS PRAZOS LEGAIS, INFORMO QUE CABE SER MANTIDO O ARQUIVAMENTO DO PEDIDO DE PATENTE, CONFORME O DISPOSTO NO ARTIGO 12, DA RESOLUCAO 113/2013.
BR112012031433 A2	20161108	LSPB	+	published / reissued	
BR112012031433 A2	20180214	LSAS	B25A	REQUESTED TRANSFER OF RIGHTS APPROVED	Owner: ZILKHA BIOMASS FUELS I LLC (US) PartyType: owner
BR112012031433 A2	20180306	LSAS	B25A	REQUESTED TRANSFER OF RIGHTS APPROVED	Owner: ZILKHA BIOMASS TECHNOLOGIES LLC (US) PartyType: owner
BR112012031433 A2	20180529		B06A	NOTIFICATION TO	

				APPLICANT TO REPLY TO THE REPORT FOR NON-PATENTABILITY OR INADEQUACY OF THE APPLICATION ACCORDING ART. 36 INDUSTRIAL PATENT LAW	
BR112012031433 A2	20180918	LSGT	B09A	DECISION: INTENTION TO GRANT	
BR112012031433 A2	20181113	LSGT	+B16A	PATENT OR CERTIFICATE OF ADDITION OF INVENTION GRANTED	Text: PRAZO DE VALIDADE: 20 (VINTE) ANOS CONTADOS A PARTIR DE 08/06/2011, OBSERVADAS AS CONDICOES LEGAIS.
BR112012031433 B1	20181113	LSGT	+	granted / extensions (spc, cpc, pte)	
BR112012031433 B1	20310608	PEXP		Calculated Patent Term Expiry	
CA2802014 AA	20121207	LSPB	+	published / reissued	
CA2802014 AA	20160720	LSLE	-FZDE	DEAD	Effective date: 20160608
CA2802058 AA	20121207	LSPB	+	published / reissued	
CA2802058 AA	20160613	LSES	+EEER	EXAMINATION REQUEST	Effective date: 20160607
CA2802058 AA	20180721	LSLE	-FZDE	DEAD	Effective date: 20180608
CL2012003469 A1	20130419	LSPB	+	published / reissued	
CL55972 B	20180516	LSGT	+	granted / extensions (spc, cpc, pte)	
CL55972 B	20321207	PEXP		Calculated Patent Term Expiry	
CO6670551 A2	20130515	LSPB	+	published / reissued	
DE602011018084 D1	20141219		R079	AMENDMENT OF IPC MAIN CLASS	Text: PREVIOUS MAIN CLASS: C10L0005400000 ClassificationSymbol: C10L0009080000 ClassificationScheme: IPC
DK2580307 T3	20151026	LSGT	+	granted / extensions (spc, cpc, pte)	
DK2580307 T3	20310608	PEXP		Calculated Patent Term Expiry	
EA024805 B1	20161031	LSGT	+	granted / extensions (spc, cpc, pte)	
EA024805 B1	20180228	LSLE	-MM4A	LAPSE OF A EURASIAN PATENT DUE TO NON-PAYMENT OF RENEWAL FEES WITHIN THE TIME LIMIT IN THE FOLLOWING DESIGNATED STATE(S)	Country of Ref document: AM AZ KG KZ MD RU TJ TM
EA024805 B1	20310608	PEXP		Calculated Patent Term Expiry	
EA201291296 A1	20130830	LSPB	+	published / reissued	
EA201291297 A1	20130830	LSPB	+	published / reissued	
EA201690792 A1	20161230	LSPB	+	published / reissued	
EP2579730 A2	20130417	LSPB	+	published / reissued	
EP2579730 A2	20130417	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20121210
EP2579730 A2	20130417		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A2 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP2579730 A2	20130911		DAX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	

				(DELETED)	
EP2579730 A2	20140117		REG	REFERENCE TO A NATIONAL CODE	Ref country code: HK Ref legal event code: DE Ref document number: 1184025 Country of Ref document: HK
EP2579730 A2	20140806	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 20140707
EP2579730 A2	20150624	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	Effective date: 20150120
EP2579730 A2	20200117	LSWD	REG	REFERENCE TO A NATIONAL CODE	Ref document number: 1184025 Ref legal event code: WD Ref country code: HK Country of Ref document: HK
EP2580307 A2	20130417	LSPB	+	published / reissued	
EP2580307 A2	20130417	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20121210
EP2580307 A2	20130417		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A2 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP2580307 A2	20130911		DAX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT (DELETED)	
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EP2580307 A2	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20160527 Country of Ref document: ES
EP2580307 A2	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160606 Year of fee payment: 6 Country of Ref document: CZ
EP2580307 A2	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160608 Year of fee payment: 6 Country of Ref document: GB
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EP2580307 A2	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160613 Year of fee payment: 6 Country of Ref document: NO
EP2580307 A2	20160729	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20160609 Country of Ref document: IE
EP2580307 A2	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20160628 Country of Ref document: EE
EP2580307 A2	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20160610 Country of Ref document: DK
EP2580307 A2	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20160526 Country of Ref document: TR
EP2580307 A2	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE	Payment date: 20160609 Year of fee payment: 6 Country of Ref document: AT

				[ANNOUNCED FROM NATIONAL OFFICE TO EPO]	
EP2580307 A2	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160613 Year of fee payment: 6 Country of Ref document: FR
EP2580307 A2	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20160607 Country of Ref document: RO
EP2580307 A2	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160613 Year of fee payment: 6 Country of Ref document: SE
EP2580307 A2	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20160531 Country of Ref document: LV
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EP2580307 A2	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160606 Year of fee payment: 6 Country of Ref document: SK
EP2580307 A2	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160608 Year of fee payment: 6 Country of Ref document: PT
EP2580307 A2	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160610 Year of fee payment: 6 Country of Ref document: NL
EP2580307 A2	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160527 Year of fee payment: 6 Country of Ref document: LT
EP2580307 A2	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20160613 Country of Ref document: BE
EP2580307 A2	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20160809 Country of Ref document: DE
EP2580307 A2	20161031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160822 Year of fee payment: 6 Country of Ref document: IT
EP2580307 A4	20140416	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	Effective date: 20140318
EP2580307 A4	20140416		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: C10L 9/08 20060101AFI20140312BHEP
EP2580307 A4	20141219		REG	REFERENCE TO A NATIONAL CODE	Ref document number: 602011018084 Ref country code: DE Text: PREVIOUS MAIN CLASS: C10L0005400000 ClassificationScheme: IPC ClassificationSymbol: C10L0009080000 Ref legal event code: R079 Country of Ref document: DE

EP2580307 A4	20150128		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: D21C 1/02 20060101ALI20141219BHEP ClassificationScheme: IPC
EP2580307 A4	20150128		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationSymbol: C10L 9/08 20060101AFI20141219BHEP ClassificationScheme: IPC
EP2580307 A4	20150304	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	Effective date: 20150203
EP2580307 A4	20150408	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	Owner: ZILKHA BIOMASS FUELS I LLC PartyType: owner
EP2580307 A4	20150715	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	Owner: ZILKHA BIOMASS TECHNOLOGIES LLC PartyType: owner
EP2580307 B1	20150722	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2580307 B1	20150722		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: B1 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP2580307 B1	20150722	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref country code: GB Ref legal event code: FG4D
EP2580307 B1	20150731	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: EP Ref country code: CH
EP2580307 B1	20150812	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref country code: IE Ref legal event code: FG4D
EP2580307 B1	20150815	LSNP	REG	REFERENCE TO A NATIONAL CODE	Kind code of Ref document: T Ref country code: AT Ref legal event code: REF Effective date: 20150815 Ref document number: 737925 Country of Ref document: AT
EP2580307 B1	20150903	LSPB	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: R096 Ref document number: 602011018084 Ref country code: DE Country of Ref document: DE
EP2580307 B1	20151015	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref country code: RO Ref legal event code: EPE
EP2580307 B1	20151026		REG	REFERENCE TO A NATIONAL CODE	Effective date: 20151020 Ref legal event code: T3 Ref country code: DK
EP2580307 B1	20151102		REG	REFERENCE TO A NATIONAL CODE	Ref country code: PT Ref legal event code: SC4A Text: AVAILABILITY OF NATIONAL TRANSLATION Effective date: 20151012
EP2580307 B1	20151103		REG	REFERENCE TO A NATIONAL CODE	Ref country code: SE Ref legal event code: TRGR
EP2580307 B1	20151103	LSGT	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20151103 Kind code of Ref document: T3 Ref document number: 2549920 Ref country code: ES Ref legal event code: FG2A Country of Ref document: ES
EP2580307 B1	20151215		REG	REFERENCE TO A NATIONAL CODE	Effective date: 20151022 Ref country code: EE Ref document number: E011163 Ref legal event code: FG4A Country of Ref document: EE
EP2580307 B1	20151221	LSNP	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20150722 Ref country code: NO Ref legal event code: T2
EP2580307 B1	20151230		REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: FP Ref country code: NL
EP2580307 B1	20151231		REG	REFERENCE TO A NATIONAL CODE	Ref country code: PL Ref legal event code: T3
EP2580307 B1	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20151023 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: GR
EP2580307 B1	20160202		REG	REFERENCE TO A NATIONAL CODE	Ref document number: E 19500 Ref legal event code: T3 Ref country code: SK Country of Ref document: SK
EP2580307 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING	Lapsed date: 20150722 NotificationOfLapse: LAPSE

				STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: RS
EP2580307 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20150722 Country of Ref document: HR
EP2580307 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20151122 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: IS
EP2580307 B1	20160425	LSRE	REG	REFERENCE TO A NATIONAL CODE	Ref document number: 602011018084 Ref legal event code: R097 Ref country code: DE Country of Ref document: DE
EP2580307 B1	20160610	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref country code: HK Ref legal event code: GR Ref document number: 1184185 Country of Ref document: HK
EP2580307 B1	20160613	LSFE	REG	REFERENCE TO A NATIONAL CODE	Year of fee payment: 6 Ref legal event code: PLFP Ref country code: FR Country of Ref document: FR
EP2580307 B1	20160628	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref document number: E026290 Ref legal event code: AG4A Ref country code: HU Country of Ref document: HU
EP2580307 B1	20160629	LSGT	+26N	NO OPPOSITION FILED	Effective date: 20160425
EP2580307 B1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20150722 Country of Ref document: SI
EP2580307 B1	20160831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20160610 Country of Ref document: HU
EP2580307 B1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20150722 Country of Ref document: MC
EP2580307 B1	20170131	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: PL Ref country code: CH
EP2580307 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20160630 Country of Ref document: LI
EP2580307 B1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20160630 Country of Ref document: CH
EP2580307 B1	20170628	LSFE	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: PLFP Ref country code: FR Year of fee payment: 7
EP2580307 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20170627 Country of Ref document: NO
EP2580307 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM	Year of fee payment: 7 Payment date: 20170608 Country of Ref document: RO

				NATIONAL OFFICE TO EPO]	
EP2580307 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20170608 Country of Ref document: CZ
EP2580307 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20170612 Country of Ref document: DK
EP2580307 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20170627 Year of fee payment: 7 Country of Ref document: EE
EP2580307 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20170608 Year of fee payment: 7 Country of Ref document: SK
EP2580307 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20170613 Year of fee payment: 7 Country of Ref document: DE
EP2580307 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20170628 Year of fee payment: 7 Country of Ref document: FR
EP2580307 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20170608 Year of fee payment: 7 Country of Ref document: LT
EP2580307 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20170609 Country of Ref document: IE
EP2580307 B1	20170731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20170614 Country of Ref document: GB
EP2580307 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20170622 Year of fee payment: 7 Country of Ref document: LV
EP2580307 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20170609 Year of fee payment: 7 Country of Ref document: AT
EP2580307 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20170609 Country of Ref document: FI
EP2580307 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20170613 Year of fee payment: 7 Country of Ref document: BE
EP2580307 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20170620 Year of fee payment: 7 Country of Ref document: IT
EP2580307 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20170613 Year of fee payment: 7 Country of Ref document: SE
EP2580307 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID	Year of fee payment: 7

				TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20170608 Country of Ref document: PL
EP2580307 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20170614 Country of Ref document: NL
EP2580307 B1	20170831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20170608 Year of fee payment: 7 Country of Ref document: PT
EP2580307 B1	20170929	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20170608 Country of Ref document: TR
EP2580307 B1	20171031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20170704 Country of Ref document: ES
EP2580307 B1	20180315	LSPB	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20150722 Ref document number: 737925 Ref legal event code: UEP Kind code of Ref document: T Ref country code: AT Country of Ref document: AT
EP2580307 B1	20180430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20170609 Country of Ref document: HU
EP2580307 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20150722 Country of Ref document: SM
EP2580307 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20150722 Country of Ref document: CY
EP2580307 B1	20180612	LSFE	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: PLFP Year of fee payment: 8 Ref country code: FR
EP2580307 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160608 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: LU
EP2580307 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20160630 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: MT
EP2580307 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20150722 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: MK
EP2580307 B1	20180731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20150722 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: BG
EP2580307 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM	Payment date: 20180612 Year of fee payment: 8 Country of Ref document: IE

				NATIONAL OFFICE TO EPO]	
EP2580307 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180606 Year of fee payment: 8 Country of Ref document: CZ
EP2580307 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180612 Year of fee payment: 8 Country of Ref document: FI
EP2580307 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180626 Year of fee payment: 8 Country of Ref document: EE
EP2580307 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 8 Payment date: 20180612 Country of Ref document: DE
EP2580307 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 8 Payment date: 20180605 Country of Ref document: SK
EP2580307 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180611 Year of fee payment: 8 Country of Ref document: NO
EP2580307 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 8 Payment date: 20180612 Country of Ref document: DK
EP2580307 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180606 Year of fee payment: 8 Country of Ref document: LT
EP2580307 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 8 Payment date: 20180613 Country of Ref document: NL
EP2580307 B1	20180731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180606 Year of fee payment: 8 Country of Ref document: PT
EP2580307 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 8 Payment date: 20180612 Country of Ref document: FR
EP2580307 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180606 Year of fee payment: 8 Country of Ref document: TR
EP2580307 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180607 Year of fee payment: 8 Country of Ref document: RO
EP2580307 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180614 Year of fee payment: 8 Country of Ref document: BE
EP2580307 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180606 Year of fee payment: 8 Country of Ref document: PL
EP2580307 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID	Payment date: 20180611

				TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 8 Country of Ref document: AT
EP2580307 B1	20180831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 8 Payment date: 20180627 Country of Ref document: LV
EP2580307 B1	20180928	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 8 Payment date: 20180612 Country of Ref document: SE
EP2580307 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20150722 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: AL
EP2580307 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 8 Payment date: 20180625 Country of Ref document: IT
EP2580307 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 8 Payment date: 20180702 Country of Ref document: ES
EP2580307 B1	20181031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180606 Year of fee payment: 8 Country of Ref document: GB
EP2580307 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 9 Payment date: 20190528 Country of Ref document: CZ
EP2580307 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190612 Year of fee payment: 9 Country of Ref document: NO
EP2580307 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 9 Payment date: 20190610 Country of Ref document: FI
EP2580307 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 9 Payment date: 20190528 Country of Ref document: DE
EP2580307 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 9 Payment date: 20190610 Country of Ref document: IE
EP2580307 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 9 Payment date: 20190611 Country of Ref document: PT
EP2580307 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 9 Payment date: 20190613 Country of Ref document: DK
EP2580307 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190530 Year of fee payment: 9 Country of Ref document: PL
EP2580307 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL	Year of fee payment: 9 Payment date: 20190531

				OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Country of Ref document: LT
EP2580307 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190612 Year of fee payment: 9 Country of Ref document: NL
EP2580307 B1	20190731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190620 Year of fee payment: 9 Country of Ref document: IT
EP2580307 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190611 Year of fee payment: 9 Country of Ref document: SE
EP2580307 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 9 Payment date: 20190528 Country of Ref document: TR
EP2580307 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 9 Payment date: 20190529 Country of Ref document: EE
EP2580307 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 9 Payment date: 20190524 Country of Ref document: BE
EP2580307 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 9 Payment date: 20190604 Country of Ref document: FR
EP2580307 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 9 Payment date: 20190531 Country of Ref document: LV
EP2580307 B1	20190830	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 9 Payment date: 20190606 Country of Ref document: RO
EP2580307 B1	20190930	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190530 Year of fee payment: 9 Country of Ref document: SK
EP2580307 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190605 Year of fee payment: 9 Country of Ref document: GB
EP2580307 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 9 Payment date: 20190701 Country of Ref document: ES
EP2580307 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 9 Payment date: 20190528 Country of Ref document: AT
EP2580307 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200602 Year of fee payment: 10 Country of Ref document: LT
EP2580307 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE	Year of fee payment: 10 Payment date: 20200601 Country of Ref document: CZ

				TO EPO]	
EP2580307 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200610 Year of fee payment: 10 Country of Ref document: DK
EP2580307 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200602 Year of fee payment: 10 Country of Ref document: RO
EP2580307 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200609 Year of fee payment: 10 Country of Ref document: FI
EP2580307 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 10 Payment date: 20200611 Country of Ref document: FR
EP2580307 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 10 Payment date: 20200629 Country of Ref document: EE
EP2580307 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200601 Year of fee payment: 10 Country of Ref document: PT
EP2580307 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200601 Year of fee payment: 10 Country of Ref document: TR
EP2580307 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200609 Year of fee payment: 10 Country of Ref document: NO
EP2580307 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200602 Year of fee payment: 10 Country of Ref document: DE
EP2580307 B1	20200731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200609 Year of fee payment: 10 Country of Ref document: IE
EP2580307 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 10 Payment date: 20200617 Country of Ref document: BE
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EP2580307 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200610 Year of fee payment: 10 Country of Ref document: SE
EP2580307 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200610 Year of fee payment: 10 Country of Ref document: IT
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EP2580307 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200603 Year of fee payment: 10 Country of Ref document: GB
EP2580307 B1	20200831	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200615 Year of fee payment: 10 Country of Ref document: NL
EP2580307 B1	20200930	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200609 Year of fee payment: 10 Country of Ref document: AT
EP2580307 B1	20201030	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200701 Year of fee payment: 10 Country of Ref document: ES
EP2580307 B1	20310608	PEXP		Calculated Patent Term Expiry	
EP2952560 A1	20151209	LSPB	+	published / reissued	
EP2952560 A1	20151209		AC	DIVISIONAL APPLICATION: REFERENCE TO EARLIER APPLICATION	Kind code of Ref document: P Ref document number: 2580307 Country of Ref document: EP
EP2952560 A1	20151209		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
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EP2952560 A1	20180110	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	Effective date: 20170802
ES2549920 T3	20151103	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2549920 T3	20310608	PEXP		Calculated Patent Term Expiry	
HK1184025 A1	20140117	LSPB	+	published / reissued	
HK1184185 A1	20140117	LSPB	+	published / reissued	
HK1184185 A1	20331017	PEXP		Calculated Patent Term Expiry	
HK1184185 B	20160610	LSGT	+	granted / extensions (spc, cpc, pte)	
HK1184185 B	20331017	PEXP		Calculated Patent Term Expiry	
HK1218764 A1	20170310	LSPB	+	published / reissued	
HK1218764 A1	20360610	PEXP		Calculated Patent Term Expiry	
HU026290 T2	20160628	LSPB	+	published / reissued	
IN11146DN2012 A	20141024	LSPB	+	published / reissued	
IN11194DN2012 A	20160205	LSPB	+	published / reissued	
IN307675 B	20190222	LSGT	+	granted / extensions (spc,	

				cpc, pte)	
IN307675 B	20321221	PEXP		Calculated Patent Term Expiry	
JP2013538240 T2	20131010	LSPB	+	published / reissued	
JP2013538240 T2	20140513	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	Text: JAPANESE INTERMEDIATE CODE: A621 Effective date: 20140512
JP2013538240 T2	20150403	LSAS	A711	NOTIFICATION OF CHANGE IN APPLICANT	Effective date: 20150403 Text: JAPANESE INTERMEDIATE CODE: A711
JP2013538240 T2	20150421	LSRE	A521	WRITTEN AMENDMENT	Effective date: 20150403 Text: JAPANESE INTERMEDIATE CODE: A821
JP2013538240 T2	20150522		A977	REPORT ON RETRIEVAL	Text: JAPANESE INTERMEDIATE CODE: A971007 Effective date: 20150522
JP2013538240 T2	20150527	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Text: JAPANESE INTERMEDIATE CODE: A131 Effective date: 20150526
JP2013538240 T2	20150818		A601	WRITTEN REQUEST FOR EXTENSION OF TIME	Text: JAPANESE INTERMEDIATE CODE: A601 Effective date: 20150818
JP2013538240 T2	20150825	LSAS	A711	NOTIFICATION OF CHANGE IN APPLICANT	Text: JAPANESE INTERMEDIATE CODE: A711 Effective date: 20150825
JP2013538240 T2	20150910	LSRE	A521	WRITTEN AMENDMENT	Effective date: 20150825 Text: JAPANESE INTERMEDIATE CODE: A821
JP2013538240 T2	20150918		A601	WRITTEN REQUEST FOR EXTENSION OF TIME	Text: JAPANESE INTERMEDIATE CODE: A601 Effective date: 20150918
JP2013538240 T2	20151019		A601	WRITTEN REQUEST FOR EXTENSION OF TIME	Text: JAPANESE INTERMEDIATE CODE: A601 Effective date: 20151019
JP2013538240 T2	20151125	LSRE	A521	WRITTEN AMENDMENT	Text: JAPANESE INTERMEDIATE CODE: A523 Effective date: 20151125
JP2013538240 T2	20151224	LSRV	-A02	DECISION OF REFUSAL	Effective date: 20151222 Text: JAPANESE INTERMEDIATE CODE: A02
JP2013538240 T2	20160421		RD03	NOTIFICATION OF APPOINTMENT OF POWER OF ATTORNEY	Text: JAPANESE INTERMEDIATE CODE: A7423 Effective date: 20160421
JP2013538240 T2	20170703		A601	WRITTEN REQUEST FOR EXTENSION OF TIME	Effective date: 20170703 Text: JAPANESE INTERMEDIATE CODE: A601
JP2013538240 T2	20170901		A601	WRITTEN REQUEST FOR EXTENSION OF TIME	Text: JAPANESE INTERMEDIATE CODE: A601 Effective date: 20170901
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JP2013539959 T2	20150227		A977	REPORT ON RETRIEVAL	Effective date: 20150227 Text: JAPANESE INTERMEDIATE CODE: A971007
JP2013539959 T2	20150311	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Effective date: 20150310 Text: JAPANESE INTERMEDIATE CODE: A131
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JP2013539959 T2	20150421	LSRE	A521	WRITTEN AMENDMENT	Text: JAPANESE INTERMEDIATE CODE: A821 Effective date: 20150403
JP2013539959 T2	20150805	LSRV	-A02	DECISION OF REFUSAL	Effective date: 20150804 Text: JAPANESE INTERMEDIATE CODE: A02
JP2016166367 A2	20160915	LSPB	+	published / reissued	
JP2016166367 A2	20170317		A977	REPORT ON RETRIEVAL	Effective date: 20170315 Text: JAPANESE INTERMEDIATE CODE: A971007
JP2016166367 A2	20170404	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Effective date: 20170404 Text: JAPANESE INTERMEDIATE CODE: A131
JP2016166367 A2	20170703		A601	WRITTEN REQUEST	Effective date: 20170703

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JP2016166367 A2	20171128	LSRV	-A02	DECISION OF REFUSAL	Effective date: 20171128 Text: JAPANESE INTERMEDIATE CODE: A02
JP2018048333 A2	20171102	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	Text: JAPANESE INTERMEDIATE CODE: A621 Effective date: 20171102
JP2018048333 A2	20180329	LSPB	+	published / reissued	
JP2018048333 A2	20181120	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Effective date: 20181120 Text: JAPANESE INTERMEDIATE CODE: A131
JP2018048333 A2	20181127		A977	REPORT ON RETRIEVAL	Effective date: 20181122 Text: JAPANESE INTERMEDIATE CODE: A971007
JP2018048333 A2	20190220		A601	WRITTEN REQUEST FOR EXTENSION OF TIME	Text: JAPANESE INTERMEDIATE CODE: A601 Effective date: 20190220
JP2018048333 A2	20190419		A601	WRITTEN REQUEST FOR EXTENSION OF TIME	Effective date: 20190419 Text: JAPANESE INTERMEDIATE CODE: A601
JP2018048333 A2	20190716	LSRV	-A02	DECISION OF REFUSAL	Text: JAPANESE INTERMEDIATE CODE: A02 Effective date: 20190716
KR20130127414 A	20131122	LSPB	+	published / reissued	
KR20130127414 A	20160709	LSDW	-WITN	WITHDRAWAL DUE TO NO REQUEST FOR EXAMINATION	
MX2012014353 A1	20130318	LSPB	+	published / reissued	
MX2012014353 A1	20200731	LSWD	-FA	ABANDONMENT OR WITHDRAWAL	
MX2012014374 A1	20130325	LSPB	+	published / reissued	
MX2012014374 A1	20151111	LSGT	+FG	GRANT OR REGISTRATION	
MY159590 A	20170113	LSGT	+	granted / extensions (spc, cpc, pte)	
MY159590 A	20310608	PEXP		Calculated Patent Term Expiry	
NZ604136 A	20150227	LSPB	+	published / reissued	
NZ604136 A	20150227	LSAS	ASS	CHANGE OF OWNERSHIP	PartyType: owner Effective date: 20150219 Owner: ZILKHA BIOMASS FUELS I LLC, US
NZ604136 A	20150529	LSGT	+PSEA	PATENT SEALED	
NZ604136 A	20150925	LSAS	ASS	CHANGE OF OWNERSHIP	Effective date: 20150917 PartyType: owner Owner: ZILKHA BIOMASS TECHNOLOGIES LLC, US
NZ604136 A	20150925	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	Effective date: 20150901 Text: PATENT RENEWED FOR 1 YEAR UNTIL 08 JUN 2016 BY CPA GLOBAL
NZ604136 A	20160624	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	Effective date: 20160527 Text: PATENT RENEWED FOR 1 YEAR UNTIL 08 JUN 2017 BY CPA GLOBAL
NZ604136 A	20171222	LSLE	-LAPS	PATENT LAPSED	
PL2580307 T3	20151231	LSGT	+	granted / extensions (spc, cpc, pte)	
PT2580307 T	20151102	LSGT	+	granted / extensions (spc, cpc, pte)	
PT2580307 T	20310608	PEXP		Calculated Patent Term Expiry	
TH132183 A	20140401	LSPB	+	published / reissued	
TH134117 A	20140529	LSPB	+	published / reissued	
TR201513193 T4	20151123	LSGT	+	granted /	

				extensions (spc, cpc, pte)	
TR201513193 T4	20310608	PEXP		Calculated Patent Term Expiry	
UA112293 C2	20160825	LSGT	+	granted / extensions (spc, cpc, pte)	
UA112293 C2	20310608	PEXP		Calculated Patent Term Expiry	
US2011296748 AA	20110913	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:HARRIS, KENNETH HILLEL PETER;REEL/FRAME:026896/0826 Effective date: 20110819 PartyType: owner Owner: ZILKHA BIOMASS FUELS LLC, TEXAS
US2011296748 AA	20111208	LSPB	+	published / reissued	
US2011296748 AA	20130612	LSAS	AS	ASSIGNMENT	Owner: ZILKHA BIOMASS FUELS I LLC, TEXAS PartyType: owner Effective date: 20130501 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ZILKHA BIOMASS FUELS LLC;REEL/FRAME:030595/0796
US2011296748 AA	20150312	LSAS	AS	ASSIGNMENT	PartyType: owner Owner: ZILKHA BIOMASS TECHNOLOGIES LLC, OKLAHOMA OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ZILKHA BIOMASS FUELS I LLC;REEL/FRAME:035148/0241 Effective date: 20150218
US2011296748 AA	20150924		RSP4	Response to Non-Final Office Action Entered and Forwarded to Examiner	
US2011296748 AA	20161230	LSES	NFA1	Non Final Action Mailed	
US2011296748 AA	20170711		RSP4	Response to Non-Final Office Action Entered and Forwarded to Examiner	
US2011296748 AA	20171016		FRM2	Final Rejection Counted, Not Yet Mailed	
US2011296748 AA	20171017		FRM1	Final Rejection Mailed	
US2011296748 AA	20180503		RFE1	Docketed New Case - Ready for Examination	
US2011296748 AA	20181004	LSES	NFA1	Non Final Action Mailed	
US2011296748 AA	20181004		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: NON FINAL ACTION MAILED
US2011296748 AA	20190420	LSES	NFA1	Non Final Action Mailed	
US2011296748 AA	20190620		RSP4	Response to Non-Final Office Action Entered and Forwarded to Examiner	
US2011296748 AA	20190620		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: RESPONSE TO NON-FINAL OFFICE ACTION ENTERED AND FORWARDED TO EXAMINER
US2011296748 AA	20190625		FRM1	Final Rejection Mailed	
US2011296748 AA	20190625		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: FINAL REJECTION MAILED
US2011296748 AA	20191228		RFE1	Docketed New Case - Ready for Examination	

US2011296748 AA	20191228		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: DOCKETED NEW CASE - READY FOR EXAMINATION
US2011296748 AA	20200304	LSES	NFA1	Non Final Action Mailed	
US2011296748 AA	20200913		RSP4	Response to Non-Final Office Action Entered and Forwarded to Examiner	
US2011296748 AA	20200913		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: RESPONSE TO NON-FINAL OFFICE ACTION ENTERED AND FORWARDED TO EXAMINER
US2011296748 AA	20201215		FRM1	Final Rejection Mailed	
US2011296748 AA	20201215		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: FINAL REJECTION MAILED
US2013209657 AA	20130409	LSAS	AS	ASSIGNMENT	PartyType: owner Effective date: 20130405 Owner: ZILKHA BIOMASS FUELS, LLC, TEXAS OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:HARRIS, KENNETH HILLEL PETER;REEL/FRAME:030179/0927
US2013209657 AA	20130612	LSAS	AS	ASSIGNMENT	Effective date: 20130501 Owner: ZILKHA BIOMASS FUELS I LLC, TEXAS PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ZILKHA BIOMASS FUELS LLC;REEL/FRAME:030595/0796
US2013209657 AA	20130815	LSPB	+	published / reissued	
US2013209657 AA	20150312	LSAS	AS	ASSIGNMENT	Effective date: 20150218 PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ZILKHA BIOMASS FUELS I LLC;REEL/FRAME:035148/0241 Owner: ZILKHA BIOMASS TECHNOLOGIES LLC, OKLAHOMA
US2013209657 AA	20150918	LSES	NFA1	Non Final Action Mailed	
US2013209657 AA	20160321	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
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WO11154845 A2	20111215	LSPB	+	published / reissued	
WO11154845 A3	20121207	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 2802014 Country of Ref document: CA
WO11154845 A3	20121207	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 2013513780 Country of Ref document: JP
WO11154845 A3	20121207	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: MX/A/2012/014353 Country of Ref document: MX
WO11154845 A3	20121208	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 1201006393 Country of Ref document: TH
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WO11154845 A3	20121224	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 11194/DELNP/2012 Country of Ref document: IN
WO11154845 A3	20130107	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 20137000408 Country of Ref document: KR
WO11154845 A3	20130108	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 13002294 Country of Ref document: CO
WO11154845 A3	20130110	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Date of Ref document: 20110608 Kind code of Ref document: A Ref document number: 2011263435 Country of Ref document: AU
WO11154845 A3	20130114	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 13702910 Country of Ref document: US
WO11154845 A3	20150901		REG	REFERENCE TO NATIONAL CODE	Ref document number: 112012031213 Ref country code: BR Ref legal event code: B01A Country of Ref document: BR
WO11154845 A3	20160823	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A2 Effective date: 20121207 Ref document number: 112012031213 Country of Ref document: BR
WO11154847 A2	20111215	LSPB	+	published / reissued	
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WO11154847 A3	20130703	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	Ref document number: 11776232 Kind code of Ref document: A2 Country of Ref document: EP
WO11156515 A2	20111215	LSPB	+	published / reissued	
WO11156515 A2	20120208		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Ref document number: 11793112 Kind code of Ref document: A2 Country of Ref document: EP
WO11156515 A3	20121207	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 2802058 Country of Ref document: CA
WO11156515 A3	20121207	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 2013514345 Kind code of Ref document: A Country of Ref document: JP
WO11156515 A3	20121207	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: MX/A/2012/014374 Country of Ref document: MX
WO11156515 A3	20121208	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 1201006396 Country of Ref document: TH
WO11156515 A3	20121210	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO11156515 A3	20121210	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2011793112 Country of Ref document: EP
WO11156515 A3	20121219	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 201291296 Country of Ref document: EA
WO11156515 A3	20121221	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 11146/DELNP/2012 Country of Ref document: IN
WO11156515 A3	20121224	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO	Ref document number: A201214818 Country of Ref document: UA

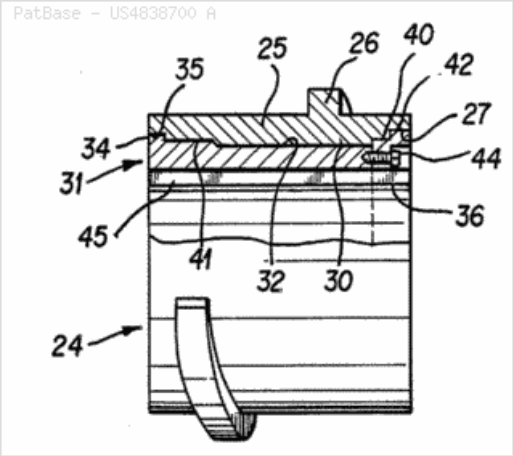
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WO11156515 A3	20131231		REG	REFERENCE TO NATIONAL CODE	Ref document number: 112012031433 Ref legal event code: B01A Ref country code: BR Country of Ref document: BR
WO11156515 A3	20161108	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Effective date: 20121210 Kind code of Ref document: A2 Ref document number: 112012031433 Country of Ref document: BR
ZA201209598 A	20130828	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA201209598 A	20321217	PEXP		Calculated Patent Term Expiry	
ZA201209599 A	20130828	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA201209599 A	20321217	PEXP		Calculated Patent Term Expiry	

83) Family number: 3030289 (US4838700 A)

Title: ASSEMBLIES FOR A WORM PRESS

Abstract: This invention is directed to a worm shaft assembly used to move corrosive and/or abrasive material such is part of an extrusion device or a press. More particularly, it relates to the construction of flights, **feed** quills and intermediate rings or collars for mechanical presses and extrusion devices.

Classifications:
International (IPC 8-9): B01F15/00 B01F7/00 B30B11/22 B30B11/24 B30B9/12
International (IPC 1-7): B01F7/08 B29B1/06
CPC: B01F7/00033 B01F7/00416 B30B11/246 B30B9/121
US: 100/117 100/145 198/666 198/677 366/318 366/323 366/79 366/89 366/90 425/208



Family:

Publication number	Publication date	Application number	Application date
US4838700 A	19890613	US19870044197	19870430

Priority:
US19870044197 19870430

Probable Assignee: WILLIAMSON KIRK E
Assignee(s): (std): WILLIAMSON KIRK E
Inventor(s): (std): WILLIAMSON KIRK E

Legal status (INPADOC)

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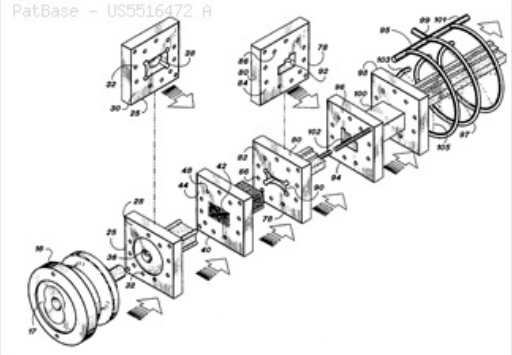
Patent	Date recorded	Event group	Code	Event	Details
US4838700 A	19890420	LSGT	PAT1	Patented Case	
US4838700 A	19890613	LSGT	+	granted / extensions (spc, cpc, pte)	
US4838700 A	19921214	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US4838700 A	19970121		REMI	MAINTENANCE FEE REMINDER MAILED	
US4838700 A	19970615	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US4838700 A	19970826	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 19970518
US4838700 A	20070430	PEXP		Calculated Patent Term Expiry	
US4838700 A	20180130	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US4838700 A	20180130	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362

84) Family number: 20354844 (US5516472 A)

Title: **EXTRUDED** SYNTHETIC WOOD COMPOSITION AND METHOD FOR MAKING SAME

Abstract: An apparatus and process for combining an organic fibrous material with a thermoplastic material forming a wood-imitating composite. The mixed material is **extruded** into a die system comprising a transition die, a stranding die and a molding die. The flow rate of the material through the die system is equalized by preforming the mixed material with the transition die to a shape approaching the end product, stranding the material with the stranding die to form individual strands, and **compressing** the individual strands with the molding die after it exits the stranding die. The die system may also include an adapter die positioned between the **extruder** and the transition die which functions to control the amount of mixed material which enters the die system. A product comprised of recyclables shredded and mixed to form a wood-imitating composite from a low-temperature **extruder** is also provided.

Classifications:
International (IPC 8-9): B27N B27N3/04 B27N3/28 B29B7/38 B29C B29C47/00 B29C47/12 B29C48/30
International (IPC 1-7): B27N B27N3/04 B27N3/08 B27N3/28 B29B13/06 B29B7/38 B29C B29C47/00 B29C47/12 B29C47/36 B29C47/70 B29C47/76 B29C47/78 B29C47/92
CPC: B27N3/28 B29C2948/92657 B29C2948/92828 B29C48/05 B29C48/12 B29C48/2556 B29C48/40 B29C48/41 B29C48/832 B29C48/865 B29C48/90 B29C48/907 B29C48/916 B29C48/919 B29C48/92 Y10S264/913 Y10S264/92
US: 264/118 264/122 264/913 264/920 264/DIG.69 425/378.1 425/382.00R 425/382.4 425/382R 428/903.3



Family:

Publication number	Publication date	Application number	Application date
AT226504 E	20021115	AT19940902510T	19941110
AU199511756 A1	19950529	AU19950011756	19941110
AU675748 B2	19970213	AU19950011756	19941110
CA2153659 AA	19950711	CA19942153659	19941110
CA2153659 C	19990223	CA19942153659	19941110
CN1062803 C	20010307	CN19941090931	19941110
CN1116416 A	19960207	CN19941090931	19941110
DE69431589 D1	20021128	DE19946031589T	19941110
DE69431589 T2	20030626	DE19946031589T	19941110
DK0679120 T3	20030224	DK19950902510T	19941110
EP0679120 A1	19951102	EP19950902510	19941110
EP0679120 A4	19970820	EP19950902510	19941110
EP0679120 B1	20021023	EP19950902510	19941110
ES2185690 T3	20030501	ES19950902510T	19941110
JP2879771 B2	19990405	JP19950514009T	19941110
JP8509438 T2	19961008	JP19950514009T	19941110
NZ276915 A	19980427	NZ19940276915	19941110
US5516472 A	19960514	US19940298034	19940830
WO9513179 A1	19950518	WO1994US12974	19941110
ZA9506978 A	19960415	ZA19950006978	19950821

Priority:
US19930150860 19931112 US19940298034 19940830 WO1994US12974 19941110

Probable Assignee: STRANDEX CORP
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Inventor(s): (std): L TERRY C ; LAVER C ; LAVER TERRY C ; LAVER TERRY CHARLES
Inventor(s): REIUAA TERII SHII ; TERRY C LAVER ; TERRY CHARLES LAVER
Agent(s): BORDEN LADNER GERVAIS LLP; FPA PATENT ATTORNEYS PTY LTD; FREEHILLS PATENT AND TRADE MARK ATTORNEYS; FREEHILLS PATENT ATTORNEYS
Designated states: AM AT AU BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CZ DE DK EE ES FI FR GA GB GE GN GR HU IE IT JP KE KG KP KR KZ LI LK LR LT LU LV MC MD MG ML MN MR MW NE NL NO NZ PL PT RO RU SD SE SI SK SN SZ TD TG TJ TT UA UZ VN

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT226504 E	20021115	LSGT	+	granted / extensions (spc, cpc, pte)	
AT226504 E	20030415	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	Ref document number: 0679120 Country of Ref document: EP
AT226504 E	20141110	PEXP		Calculated Patent Term Expiry	
AU199511756 A1	19950529	LSPB	+	published / reissued	
AU675748 B2	19970213	LSGT	+	granted / extensions	

				(spc, cpc, pte)	
AU675748 B2	20141110	PEXP		Calculated Patent Term Expiry	
CA2153659 AA	19950711	LSPB	+	published / reissued	
CA2153659 AA	19970306	LSES	+EEER	EXAMINATION REQUEST	
CA2153659 C	19990223	LSGT	+	granted / extensions (spc, cpc, pte)	
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CA2153659 C	20150112	LSLE	-MKEX	EXPIRY	Effective date: 20141110
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CN1062803 C	20150114	LSLE	-C17	CESSATION OF PATENT RIGHT	
CN1116416 A	19960207	LSPB	+	published / reissued	
CN1116416 A	19960207	LSPB	+C06	PUBLICATION	
CN1116416 A	19970122		C10	ENTRY INTO SUBSTANTIVE EXAMINATION	
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DE69431589 D1	20141110	LSLE	-R071	EXPIRY OF RIGHT	
DE69431589 T2	20030626	LSGT	+	granted / extensions (spc, cpc, pte)	
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DK0679120 T3	20141110	PEXP		Calculated Patent Term Expiry	
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EP0679120 A4	19970820	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	Effective date: 19970702
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EP0679120 A4	19990609	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 19990427
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EP0679120 B1	20021031	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: EP
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EP0679120 B1	20030501	LSGT	REG	REFERENCE TO A NATIONAL CODE	Kind code of Ref document: T3 Ref country code: ES Ref document number: 2185690 Ref legal event code: FG2A Country of Ref document: ES
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EP0679120 B1	20120131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20111110 Year of fee payment: 18 Country of Ref document: IE
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JP2879771 B2	20060207	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
JP2879771 B2	20070206	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
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US5516472 A	19950306	LSAS	AS	ASSIGNMENT	Effective date: 19941110 Owner: STRANDEX CORPORATION, WISCONSIN OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:LAVER, TERRY

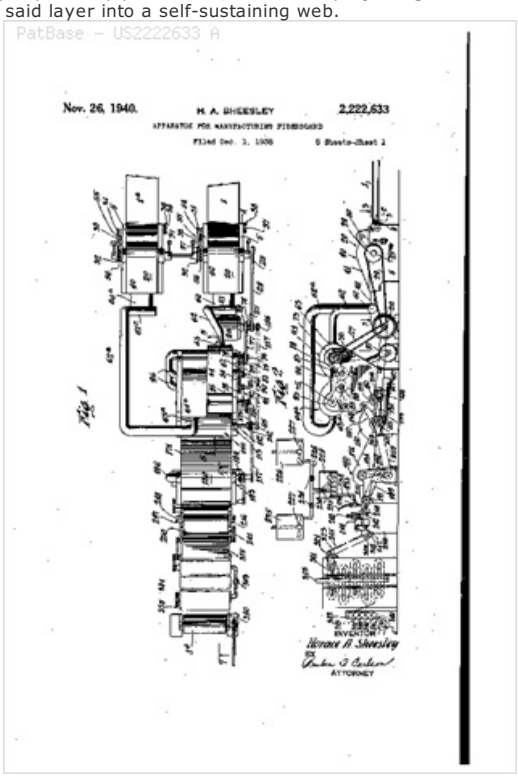
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US5516472 A	20070523	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
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WO9513179 A1	19941110	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 94190931.X Country of Ref document: CN
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WO9513179 A1	19950710	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 276915 Country of Ref document: NZ
WO9513179 A1	19950711	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2153659 Country of Ref document: CA
WO9513179 A1	19950720	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 1995902510 Country of Ref document: EP
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ZA9506978 A	20150820	PEXP		Calculated Patent Term Expiry	

85) Family number: 21361252 (US2222633 A)

Title: APPARATUS FOR **MANUFACTURING** FIBERBOARD

Abstract: 1. Apparatus for **manufacturing** nberboard from substantially dry dbrous stock including in combination, means for mechanically reducing said fibrous stock into a loosely piled mass of nbers, said iiber-reducing means including, a rotatably mounted drum, sharpened pins projecting from said drum spaced less than one inch apart, power means for driving said drum at a peripheral speed of 2,000 lineal feet per minute and upwards, and cooperating elements for retaining said stock in a relatively hard compacted layer while operated upon by said pins, means including cooperating suction elements for establishing a predetermined unstratiiied layer of said substantially dry loosely piled iibers, means for projecting a binder into said loosely piled uncornpacted layer, and means for compacting said layer into a self-sustaining web.

Classifications:
International (IPC 8-9): D21B1/00 D21B1/12 D21D1/00 D21D1/14 D21J1/00
International (IPC 1-7): D21F11/00 D21J1/00
CPC: D21B1/00 D21B1/12 D21D1/14 D21J1/00
US: 19/307 19/96 425/324.1 425/371 425/504 425/505 425/508 425/515 425/520 425/82.1 425/90



Family:

Publication number	Publication date	Application number	Application date
US2222633 A	19401126	US19360113584	19361201

Priority:
US19360113584 19361201

Probable Assignee: TUFIDE PRODUCTS CORP
Assignee(s): (std): TUFIDE PRODUCTS CORP
Inventor(s): (std): SHEESLEY HORACE A

Legal status (INPADOC)

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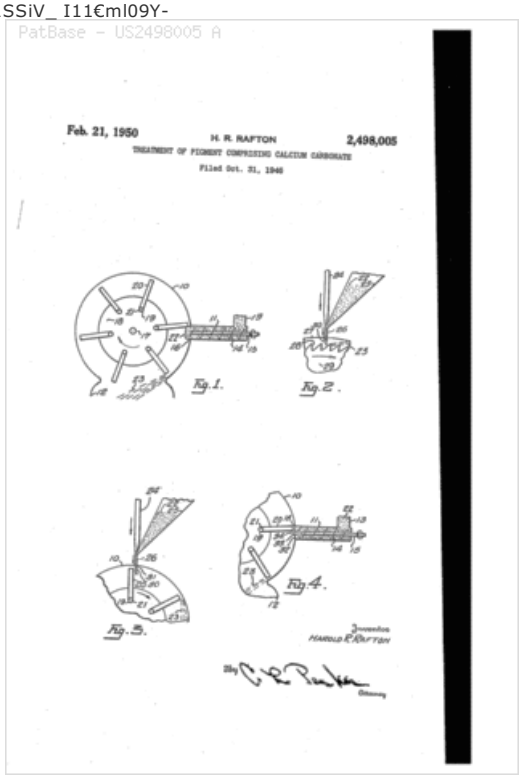
Patent	Date recorded	Event group	Code	Event	Details
US2222633 A	19401126	LSGT	+	granted / extensions (spc, cpc, pte)	

86) Family number: 22498105 (US2498005 A)

Title: TREATMENT OF PIGMENT COMPRISING CALCIUM CARBONATE

Abstract: 1. In the treatment of a pigment comprising calcium carbonate, the method of modifying said pigment to effect an improvement in at least one of the properties of adhesive requirement, oil absorption and gloss-imparting quality of said pigment, which comprises directing said pigment in restricted condition into the path of travel of a percussive member of a rotor element, said pigment being in a state with respect to liquid content which is in the range extending from absence of liquid to a liquid content just insuflicient to convert said pigment into a paste, subjecting said pigment to a percussion from said percussive member, said percussive member having a Velocity of not less than 30 feet per second The following references are of record in the at the point of said percussion, said rotor element at the time of subjecting said pigment to the action of said percussive member being free from Contact with said pigment except in respect to said percussive member, said pigment being free for movement upon, and at the point of, said percussion, said pigment being propelled by said percussive member out or the path of travel of said percussive member, the particle size of said pigment being substantially unchanged by subjection to the action of said I_gt;_fG\1SSiV_ I11€ml09Y-

Classifications:
International (IPC 8-9): C01F11/00 C01F11/18 C09C1/02
International (IPC 1-7): C09C1/02
CPC: C01F11/185 C01P2004/61 C01P2006/19 C01P2006/60 C01P2006/82 C09C1/021
US: 106/464 23/293R 241/189.1 241/191 241/5



Family:

Publication number	Publication date	Application number	Application date
US2498005 A	19500221	US19460706907	19461031

Priority:
US19460706907 19461031

Probable Assignee: RAFFOLD PROCESS CORP
Assignee(s): (std): RAFFOLD PROCESS CORP
Inventor(s): (std): RAFTON HAROLD R

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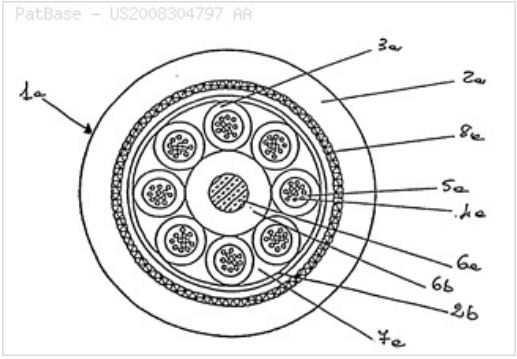
Patent	Date recorded	Event group	Code	Event	Details
US2498005 A	19500221	LSGT	+	granted / extensions (spc, cpc, pte)	

87) Family number: 31876996 (US2008304797 AA)

Title: CABLE WITH A COATING LAYER MADE FROM A WASTE MATERIAL

Abstract: A cable including at least one core having at least one transmissive element and at least one coating layer made from a coating material, wherein the coating material has at least a first polyethylene having a density not higher than 0.940 grams per cubic centimetre, preferably not lower than 0.910 grams per cubic centimetre, more preferably 0.915 grams per cubic centimetre to 0.938 grams per cubic centimetre, and a Melt Flow Index (MFI), measured at 190 degrees centigrade with a load of 2.16 Kg according to ASTM D1238-00 standard, of 0.05 g/10' to 2 g/10', preferably 0.1 g/10' to 1 g/10'; the first polyethylene being obtained from a waste material; at least a second polyethylene having a density higher than 0.940 grams per cubic centimetre, preferably not higher than 0.970 grams per cubic centimetre, more preferably 0.942 grams per cubic centimetre to 0.965 grams per cubic centimetre. Preferably, the coating layer is a cable external layer having a protective function.

Classifications:
International (IPC 8-9): C08J11/00 C08J11/06 C08L23/00 C08L23/06 C09D123/00 C09D123/06 G02B6/44 H01B3/44
International (IPC 1-7): C08L23/06 H01B11/00 H01B3/42 H01B3/44 H01B9/00
CPC: C08L2205/02 C08L23/06 C09D123/06 H01B3/441 Y02W30/62
US: 385/100 385/100P 385/123



Family:

Publication number	Publication date	Application number	Application date
AR045842 AA	20051116	AR2004P103508	20040928
AT426903 E	20090415	AT20030769341T	20030930
AU2003277921 AA	20050511	AU20030277921	20030930
BRPI0318517 A	20070102	BR2003PI18517	20030930
BRPI0318517 B1	20120222	BR2003PI18517	20030930
CA2550754 AA	20060328	CA20032550754	20030930
CA2550754 C	20111206	CA20032550754	20030930
CN1868006 A	20061122	CN20038027147	20030930
CN1868006 B	20100428	CN20038027147	20030930
DE60326891 D1	20090507	DE20036026891T	20030930
EP1676283 A1	20060705	EP20030769341	20030930
EP1676283 B1	20090325	EP20030769341	20030930
ES2324605 T3	20090811	ES20030769341T	20030930
RU2006114733 A	20071120	RU20060114733	20030930
RU2327714 C2	20080627	RU20060114733	20030930
US2008304797 AA	20081211	US20030573595	20030930
US7672555 BB	20100302	US20030573595	20030930
WO05041214 A1	20050506	WO2003EP10812	20030930

Priority:
WO2003EP10812 20030930 RU20060114733 20030930

Probable Assignee: PRYSMIAN CAVI E SISTEMI ENERGIA SRL

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Assignee(s): PRIZMIAN KAVI EH SISTEMI EHNERGIA S R L

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Inventor(s): AL'BIDZATI EHNRIKO ; ANDREA PELIZZONI ; ENRICO ALBIZZATI ; FRANCO PERUZZOTTI ; LUCA CASTELLANI

Agent(s): FINNEGAN HENDERSON FARABOW GARRETT AND DUNNER LLP; KIRBY EADES GALE BAKER; MARCHI MASSIMO ET AL

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AR045842 AA	20051116	LSPB	+	published / reissued	
AR045842 AA	20080825	LSGT	+FG	GRANT, REGISTRATION	
AR045842 AA	20191204	LSWD	-FD	APPLICATION DECLARED VOID OR LAPSED, E.G.,	

				DUE TO NON-PAYMENT OF FEE	
AT426903 E	20090415	LSGT	+	granted / extensions (spc, cpc, pte)	
AT426903 E	20090915	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT426903 E	20230930	PEXP		Calculated Patent Term Expiry	
AU2003277921 AA	20050511	LSPB	+	published / reissued	
AU2003277921 AA	20060615	LSLE	-MK6	APPLICATION LAPSED SECTION 142(2)(F)/REG. 8.3(3) - PCT APPLIC. NOT ENTERING NATIONAL PHASE	
BRPI0318517 A	20070102	LSPB	+	published / reissued	
BRPI0318517 A	20110531	LSES	B07A	TECHNICAL EXAMINATION (OPINION): PUBLICATION OF TECHNICAL EXAMINATION (OPINION)	
BRPI0318517 A	20111220	LSGT	B09A	DECISION: INTENTION TO GRANT	
BRPI0318517 B1	20120222	LSGT	+	granted / extensions (spc, cpc, pte)	
BRPI0318517 B1	20120222	LSGT	+B16A	PATENT OR CERTIFICATE OF ADDITION OF INVENTION GRANTED	Text: PRAZO DE VALIDADE: 20 (VINTE) ANOS CONTADOS A PARTIR DE 30/09/2003, OBSERVADAS AS CONDICOES LEGAIS.
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BRPI0318517 B1	20171121	LSLE	-B24J	LAPSE BECAUSE OF NON-PAYMENT OF ANNUAL FEES (DEFINITIVELY: ART 78 IV LPI, RESOLUTION 113/2013 ART. 12)	
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CA2550754 AA	20060328	LSPB	+	published / reissued	
CA2550754 AA	20080922	LSES	+EEER	EXAMINATION REQUEST	
CA2550754 C	20111206	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2550754 C	20171113	LSLE	-MKLA	LAPSED	Effective date: 20171002
CA2550754 C	20230930	PEXP		Calculated Patent Term Expiry	
CN1868006 A	20061122	LSPB	+	published / reissued	
CN1868006 A	20061122	LSPB	+C06	PUBLICATION	
CN1868006 A	20070117		C10	ENTRY INTO SUBSTANTIVE EXAMINATION	
CN1868006 B	20100428	LSGT	+	granted / extensions (spc, cpc, pte)	
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CN1868006 B	20171124	LSLE	-CF01	TERMINATION OF PATENT RIGHT DUE TO NON-PAYMENT OF ANNUAL FEE	

CN1868006 B	20230930	PEXP		Calculated Patent Term Expiry	
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EP1676283 A1	20061206	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	Owner: PRYSMIAN (LUX) II SARL PartyType: owner
EP1676283 A1	20061213	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	Owner: PRYSMIAN CAVI E SISTEMI ENERGIA S.R.L. PartyType: owner
EP1676283 A1	20070103		DAX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT (DELETED)	
EP1676283 A1	20151030	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20150928 Year of fee payment: 13 Country of Ref document: ES
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EP1676283 A1	20160129	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20150929 Year of fee payment: 13 Country of Ref document: DE
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EP1676283 A1	20161130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160926 Year of fee payment: 14 Country of Ref document: FR
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EP1676283 B1	20090331	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: EP
EP1676283 B1	20090429	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref country code: IE Ref legal event code: FG4D
EP1676283 B1	20090507		REF	CORRESPONDS TO:	Date of Ref document: 20090507 Kind code of Ref document: P

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EP1676283 B1	20090811	LSGT	REG	REFERENCE TO A NATIONAL CODE	Kind code of Ref document: T3 Ref country code: ES Ref document number: 2324605 Ref legal event code: FG2A Country of Ref document: ES
EP1676283 B1	20090831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090325 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: AT
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EP1676283 B1	20090901	LSLE	-NLV1	NL: LAPSED OR ANNULLED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT	Ref country code: EP
EP1676283 B1	20090930	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090325 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: BE
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EP1676283 B1	20100623	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: IE Ref legal event code: MM4A
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EP1676283 B1	20110831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090325 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: TR
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EP1676283 B1	20160926	LSFE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: FR Ref legal event code: PLFP Year of fee payment: 14 Country of Ref document: FR
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EP1676283 B1	20190228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20181001 Year of fee payment: 16 Country of Ref document: ES
EP1676283 B1	20191031	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED	Payment date: 20190920 Year of fee payment: 17 Country of Ref document: IT

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EP1676283 B1	20200131	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190927 Year of fee payment: 17 Country of Ref document: DE
EP1676283 B1	20200228	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20191001 Year of fee payment: 17 Country of Ref document: ES
EP1676283 B1	20201030	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200929 Year of fee payment: 18 Country of Ref document: DE
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EP1676283 B1	20201130	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200923 Year of fee payment: 18 Country of Ref document: IT
EP1676283 B1	20230930	PEXP		Calculated Patent Term Expiry	
ES2324605 T3	20090811	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2324605 T3	20230930	PEXP		Calculated Patent Term Expiry	
RU2006114733 A	20071120	LSPB	+	published / reissued	
RU2327714 C2	20080627	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2327714 C2	20110527	LSLI	PC41	OFFICIAL REGISTRATION OF THE TRANSFER OF EXCLUSIVE RIGHT	Effective date: 20110415
RU2327714 C2	20120510	LSLI	QB4A	LICENCE ON USE OF PATENT	Effective date: 20120328 Text: LICENCE
RU2327714 C2	20140810	LSLI	QB4A	LICENCE ON USE OF PATENT	Effective date: 20140717 Text: SUB-LICENCE
RU2327714 C2	20140810	LSLI	QB4A	LICENCE ON USE OF PATENT	Effective date: 20140717 Text: LICENCE
RU2327714 C2	20160520	LSLI	QC41	OFFICIAL REGISTRATION OF THE TERMINATION OF THE LICENCE AGREEMENT OR OTHER AGREEMENTS ON THE DISPOSAL OF AN EXCLUSIVE RIGHT	Effective date: 20160429 Text: LICENCE FORMERLY AGREED ON 20140717
RU2327714 C2	20160520	LSLI	QC41	OFFICIAL REGISTRATION OF THE TERMINATION OF THE LICENCE AGREEMENT OR OTHER AGREEMENTS ON THE DISPOSAL OF AN EXCLUSIVE RIGHT	Effective date: 20160429 Text: LICENCE FORMERLY AGREED ON 20120328

RU2327714 C2	20160810	LSLI	QB4A	LICENCE ON USE OF PATENT	Effective date: 20160720 Text: LICENCE
RU2327714 C2	20170606	LSLE	-MM4A	THE PATENT IS INVALID DUE TO NON-PAYMENT OF FEES	Effective date: 20161001
RU2327714 C2	20230930	PEXP		Calculated Patent Term Expiry	
US2008304797 AA	20081211	LSPB	+	published / reissued	
US2008304797 AA	20100210	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US7672555 BB	20080827	LSAS	AS	ASSIGNMENT	Effective date: 20060502 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:CASTELLANI, LUCA;PELIZZONI, ANDREA;PERUZZOTTI, FRANCO;AND OTHERS;REEL/FRAME:021449/0554 Owner: PRYSMIAN CAVI E SISTEMI ENERGIA S.R.L., ITALY PartyType: owner
US7672555 BB	20080827	LSAS	AS	ASSIGNMENT	Effective date: 20060502 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:CASTELLANI, LUCA;PELIZZONI, ANDREA;PERUZZOTTI, FRANCO;AND OTHERS;REEL/FRAME:021449/0554 Owner: PRYSMIAN CAVI E SISTEMI ENERGIA S.R.L.,ITALY PartyType: owner
US7672555 BB	20100210	LSGT	PAT1	Patented Case	
US7672555 BB	20100302	LSGT	+	granted / extensions (spc, cpc, pte)	
US7672555 BB	20130903	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US7672555 BB	20170905	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	Year of fee payment: 8
US7672555 BB	20230930	PEXP		Calculated Patent Term Expiry	
WO05041214 A1	20030930	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 03827147.8 Country of Ref document: CN
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WO05041214 A1	20050506		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: A1 Country of Ref document: AM AT AZ BE BF BG BJ BY CF CG CH CI CM CY CZ DE DK EE ES FI FR GA GB GH GM GN GQ GR GW HU IE IT KE KG KZ LS LU MC MD ML MR MW MZ NE NL PT RO RU SD SE SI SK SL SN SZ TD TG TJ TM TR TZ UG ZM ZW
WO05041214 A1	20050629		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	
WO05041214 A1	20060310	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2003769341 Country of Ref document: EP
WO05041214 A1	20060328	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2550754 Country of Ref document: CA
WO05041214 A1	20060502	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2006114733 Country of Ref document: RU
WO05041214 A1	20060705	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: 2003769341 Country of Ref document: EP
WO05041214 A1	20070102	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: PI0318517 Country of Ref document: BR

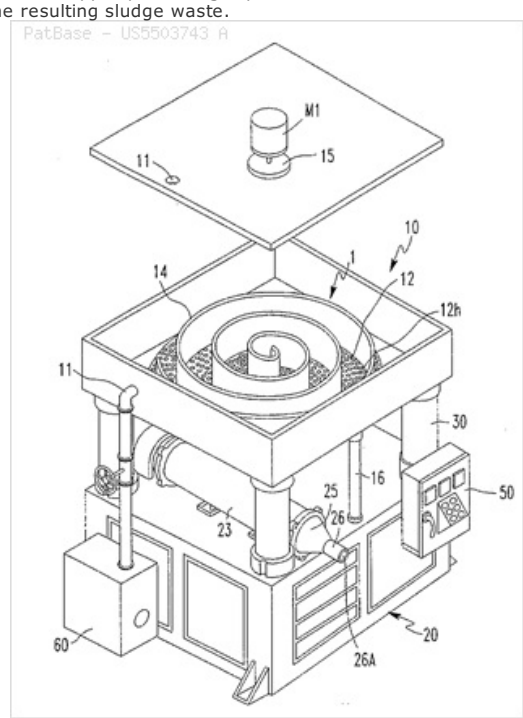
WO05041214 A1	20070828	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: JP
WO05041214 A1	20080827	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 10573595 Country of Ref document: US

88) Family number: 11595291 (US5503743 A)

Title: DEVICE FOR DEHYDRATING SLUDGE WASTE

Abstract: A compact sludge dehydrating apparatus having a replaceable upper part, with a lower part, a replaceable upper part having a sludge inlet, a plurality of columns for detachably mounting the upper part to the lower part with a space, a first sludge dehydrator for performing a first dehydration of the sludge waste and being provided in the upper part, a second sludge dehydrator for performing a second dehydration of the sludge waste and being mounted on the lower part. This second dehydrator communicates with the first dehydrator through a pipe. The first and the second cases are interconnected. A plurality of drains is provided to drain the waste waters **extruded** from the sludge waste as a result of sludge dehydration to a water collection tank of the lower part. The apparatus provides, for the upper part being replaceable for different kinds of the wastes to be treated, which reduces the moisture content of the resulting sludge waste.

Classifications:
International (IPC 8-9): B01D29/01 B01D29/03 B01D33/00 B01D33/03 B01D36/00 B04B5/00 B04B5/10 B30B9/02 B30B9/24 C02F11/12 F16C19/22 F16C19/24 F16C29/04 F16C29/06 F16C33/58
International (IPC 1-7): B01D29/50 B01D33/04 B01D36/00 B04B5/10 C02F11/00 C02F11/12
CPC: B01D2201/02 B01D29/03 B01D29/036 B01D29/6476 B01D29/82 B01D29/945 B01D33/0353 B01D33/648 C02F11/121 B30B9/24
US: 210/248 210/261 210/262 210/335 210/400 210/413 210/770



Family:

Publication number	Publication date	Application number	Application date
EP0615957 A1	19940921	EP19930401187	19930510
JP2098175 C3	19961002	JP19930127405	19930528
JP6277421 A2	19941004	JP19930127405	19930528
JP8004693 B4	19960124	JP19930127405	19930528
KR930010764 B1	19931110	KR19930003844	19930313
TH16780 A	19951019	TH19931000883	19930525
TW230765 B	19940921	TW19930103683	19930511
US5503743 A	19960402	US19930060006	19930512

Priority:
KR19930038044 19930313 KR19930003844 19930313

Probable Assignee: HUNG WITH FIVE
Assignee(s): (std): HONG SANG O ; HONG SANG OH ; KOU SOUGO
Assignee(s): HUNG WITH FIVE ; OH HONG S
Inventor(s): (std): HONG SANG O ; HONG SANG OH ; KOU SOUGO ; OH HONG S
Designated states: AT BE CH DE ES FR GB GR IT LI MC NL SE

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
EP0615957 A1	19940921	LSPB	+	published / reissued	
EP0615957 A1	19940921		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AT BE CH DE ES FR GB GR IT LI MC NL SE
EP0615957 A1	19950510	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 19950316
EP0615957 A1	19970903	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	Effective date: 19961201
JP2098175 C3	19961002	LSGT	+	granted / extensions (spc, cpc, pte)	
JP2098175 C3	20130528	PEXP		Calculated Patent Term Expiry	

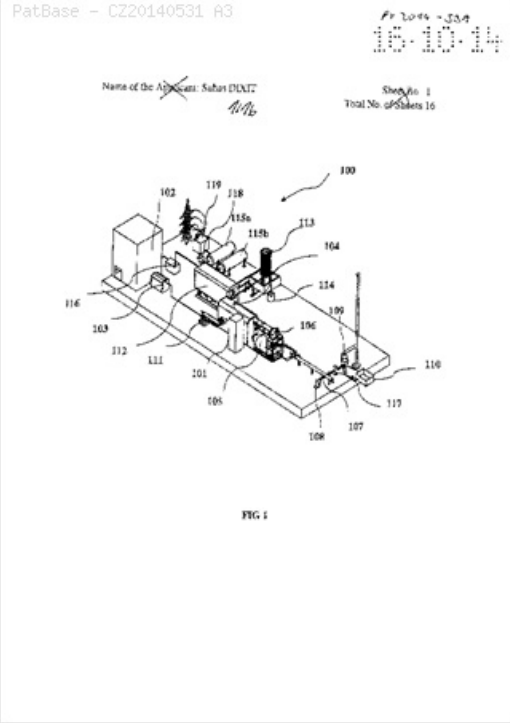
JP6277421 A2	19941004	LSPB	+	published / reissued	
JP8004693 B4	19960124	LSPB	+	published / reissued	
KR930010764 B1	19930313	LSES	A201	REQUEST FOR EXAMINATION	
KR930010764 B1	19930619	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR930010764 B1	19931019	LSPB	G160	DECISION TO PUBLISH PATENT APPLICATION	
KR930010764 B1	19931110	LSGT	+	granted / extensions (spc, cpc, pte)	
KR930010764 B1	19940314	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR930010764 B1	19940418	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR930010764 B1	20070918	LSFE	FPAY	ANNUAL FEE PAYMENT	Payment date: 20070918 Year of fee payment: 15
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KR930010764 B1	20130313	PEXP		Calculated Patent Term Expiry	
TH16780 A	19951019	LSPB	+	published / reissued	
TW230765 B	19940921	LSGT	+	granted / extensions (spc, cpc, pte)	
TW230765 B	20130511	PEXP		Calculated Patent Term Expiry	
US5503743 A	19930512		APP3	Application Undergoing Preexam Processing	
US5503743 A	19960402	LSGT	+	granted / extensions (spc, cpc, pte)	
US5503743 A	19991026		REMI	MAINTENANCE FEE REMINDER MAILED	
US5503743 A	20000606	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5503743 A	20000606		+SULP	SURCHARGE FOR LATE PAYMENT	
US5503743 A	20000613	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20000402
US5503743 A	20000721	LSGT	PAT1	Patented Case	
US5503743 A	20000905	LSRE	+PRDP	PATENT REINSTATED DUE TO THE ACCEPTANCE OF A LATE MAINTENANCE FEE	Effective date: 20000721
US5503743 A	20031022		REMI	MAINTENANCE FEE REMINDER MAILED	
US5503743 A	20040402	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5503743 A	20040601	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20040402
US5503743 A	20130512	PEXP		Calculated Patent Term Expiry	
US5503743 A	20180613	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	Text: PATENT EXPIRED FOR FAILURE TO PAY MAINTENANCE FEES (ORIGINAL EVENT CODE: EXP.)
US5503743 A	20180613	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5503743 A	20180613	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362

89) Family number: 60952722 (IN01727MU2014 A)

Title: AN APPARATUS FOR PYROLYSIS OF POLYMER WASTE AND THE PROCESS THEREOF

Abstract: [0080] The present invention describes a pyrolysis apparatus for energy recovery from polymer wastes including waste tires or waste plastics. The apparatus processes the low density plastic waste segregated from municipal solid waste or waste **paper** mills. The pyrolysis apparatus has airlock waste plastic or tire **feeding** system. The horizontal pyrolysis reactor (104) has carbon removal **screw** (403) welded to the reactor shell (301) to ensure smooth discharge of carbon. This pyrolysis reactor (104) and carbon removal **screw** (403) is heated using common hot air jacket (303). After carbon discharge from the pyrolysis reactor (104), carbon is cooled by ingenious carbon cooling **conveyor** for safe discharge of carbon. The apparatus requires low man power with reduced maintenance and gas emissions released are zero discharge technology without any harmful impact on the environment.

Classifications:
International (IPC 8-9): B09B3/00 C10B47/00 C10B47/02 C10B53/00 C10B53/07 C10G1/10
CPC: Y02P20/143 Y02W30/20



Family:

Publication number	Publication date	Application number	Application date
CZ20140531 A3	20151202	CZ20140000531	20140805
IN01727MU2014 A	20151127	IN2014MU01727	20140523

Priority:
IN2014MU01727 20140523

Probable Assignee:	DIXIT SUHAS
Assignee(s): (std):	DIXIT SUHAS
Assignee(s):	SUHAS DIXIT
Inventor(s): (std):	DIXIT SUHAS
Inventor(s):	SUHAS DIXIT

Legal status (INPADOC)

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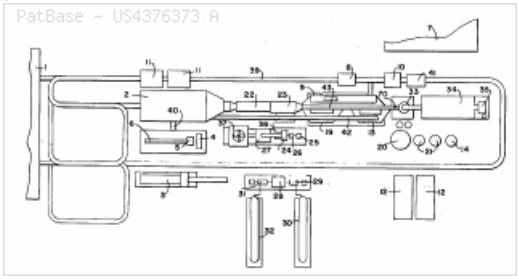
Patent	Date recorded	Event group	Code	Event	Details
CZ20140531 A3	20151202	LSPB	+	published / reissued	
IN01727MU2014 A	20151127	LSPB	+	published / reissued	

90) Family number: 3802104 (US4376373 A)

Title: ENERGY RECOVERY SYSTEM

Abstract: Scrap automobiles are loaded onto carts which move along rails into a two-stage incinerator. Combustible waste is shredded, dried, and loaded onto a transporter which moves along the rails into the incinerator. The automobiles and combustibles are incinerated and the heat produced is collected. The heat is converted into steam used to power a turbine driven electricity generator. The generated electricity is used to electrolyze water and to operate an electric arc furnace which refines the incinerated metal. Heat from the incinerator is further used to heat waste oil in a cracking tower and to heat fermented organic waste in an alcohol still. The combustion gases are passed through a scrubbing tower where they are cooled and scrubbed with a caustic spray to neutralize acids present and they are passed through a bag house filter to remove particulate matter before they are vented into the atmosphere.

Classifications:
International (IPC 8-9): B01D53/34 C10G9/00 C21C5/00 C21C5/56 F01K21/00 F23G5/46 F23G7/00 F23J15/02
International (IPC 1-7): F01K17/00
CPC: B01D53/34 C10G9/00 C21C5/565 F01K21/00 F23G5/46 F23G7/005 F23J15/02 Y02E20/12 Y02P10/134 Y02P10/20 Y02P10/32
US: 110/235 122/2 60/648



Family:

Publication number	Publication date	Application number	Application date
US4376373 A	19830315	US19810235489	19810218

Priority:

US19810235489 19810218

Probable Assignee: HUDDLESTON BRUCE C

Assignee(s): (std)**:** HUDDLESTON BRUCE C ; WEBER ROY

Inventor(s): (std)**:** HUDDLESTON BRUCE C ; WEBER ROY

Legal status (INPADOC)

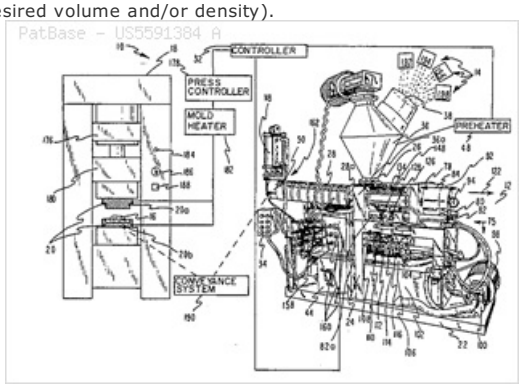
View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
US4376373 A	19830315	LSGT	+	granted / extensions (spc, cpc, pte)	
US4376373 A	19861014		REMI	MAINTENANCE FEE REMINDER MAILED	
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US4376373 A	19870315	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US4376373 A	19870315	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US4376373 A	19870602	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 19870315
US4376373 A	20010218	PEXP		Calculated Patent Term Expiry	

91) Family number: 30081275 (US5591384 A)

Title: METHOD FOR MOLDING PARTS

Abstract: A method is disclosed for molding parts. The system comprises a plasticator and press. The plasticator is capable of receiving a plurality of molding materials comprising a predetermined amount of at least thermoplastic polymers and long reinforcing fibers, such as glass fiber. The plasticator is characterized in that it is capable of simultaneously receiving contaminated molding materials and relatively long glass fibers and molding them into a billet wherein the fibers remain substantially undamaged. The billet is subsequently placed in a **compression** molding press where other materials may be molded or applied to its surface. The method is further characterized in that a single thermal rise is used to plasticate the molding materials. The system employed by the method comprises a plasticator having a **screw**, a **screw** drive system, a plurality of heaters and control system to control the pressure and temperature in a barrel of the plasticator so as to create a billet having certain predetermined billet characteristics (such as a desired volume and/or density).



Classifications:

International (IPC 8-9): A63B71/02 B29B11/00 B29B11/10 B29B11/16 B29B17/00 B29B7/00 B29B7/30 B29B7/60 B29B7/82 B29B7/90 B29B9/02 B29B9/06 B29C43/00 B29C43/20 B29C43/34 B29C47/00 B29C47/38 B29C47/44 B29C47/78 B29C47/82 B29C48/45 B29C67/12 B29C70/00 B29C70/58 H01L23/52 H01L23/538

International (IPC 1-7): A63B63/08 A63B71/02 B02C18/00 B29B11/10 B29B11/16 B29B17/00 B29B7/42 B29B7/60 B29B7/82 B29B7/90 B29B9/06 B29C43/20 B29C43/34 B29C47/00 B29C47/36 B29C47/44 B29C47/82 B29C47/92 B29C70/58

CPC: B29B11/10 B29B17/0026 B29B7/14 B29B7/244 B29B7/283 B29B7/42 B29B7/429 B29B7/60 B29B7/728 B29B7/823 B29B7/826 B29B7/90 B29C2948/92514 B29C2948/92704 B29C2948/92895 B29C43/00 B29C48/0011 B29C48/022 B29C48/03 B29C48/286 B29C48/287 B29C48/297 B29C48/45 B29C48/793 B29C48/83 B29C48/832 B29C48/845 B29C48/865 B29C48/92 B29K2023/06 B29K2023/083 B29K2023/12 B29K2105/06 B29K2105/12 Y02W30/62 Y10S264/65 Y10S264/913 Y10S264/921 B29B7/423 B29B7/726 B29B7/7485 B29B9/10 B29B9/14 B29C2043/3433 B29C43/003 B29C43/34 B29C48/0018 B29C48/0022 B29C48/0023 B29C48/07 B29C48/08 B29C48/12 B29C48/15 B29C48/16 B29C48/53 B29C48/535 B29C48/585 B29K2105/26 B29K2423/083 B29K2709/08 B29L2031/7232 Y10T428/31

US: 264/132 264/132S 264/135 264/135S 264/138 264/138S 264/14 264/140 264/140S 264/142 264/142S 264/148 264/148S 264/259 264/259S 264/275 264/275S 264/325 264/325S 264/349 264/349S 264/40.5 264/40.500P 264/40.6 264/40.600S 264/40.7 264/40.700S 264/911 264/911S 264/913 264/921 264/DIG.65 264/DIG.69 366/69 366/69S 425/142 425/142S 425/144 425/147 425/147S 425/164 425/202 425/205 425/205S 425/208 425/311 425/377 425/582 425/582S 425/587 425/587S 428/409 473/481 473/481S 264/DIG.065

Family:

Publication number	Publication date	Application number	Application date
AT250980 E	20031015	AT19950914028T	19950314
AU199521195 A1	19951023	AU19950021195	19950314
AU699303 B2	19981203	AU19950021195	19950314
AU199734976 A1	19980414	AU19970034976	19970620
AU199917336 A1	19990429	AU19990017336	19990216
AU714532 B2	20000106	AU19990017336	19990216
CA2185809 AA	19960917	CA19952185809	19950314
CA2265784 AA	19990315	CA19972265784	19970620
DE69531862 D1	20031106	DE19956031862T	19950314
DE69531862 T2	20040909	DE19956031862T	19950314
EP0751828 A1	19970108	EP19950914028	19950314
EP0751828 A4	19980930	EP19950914028	19950314
EP0751828 B1	20031001	EP19950914028	19950314
TW267973 B	19960111	TW19950102689	19950317
US5591384 A	19970107	US19940220906	19940331
US5637329 A	19970610	US19950478553	19950607
US5800757 A	19980901	US19960710411	19960917
US5954601 A	19990921	US19980139923	19980826
US6190586 BA	20010220	US19990399524	19990920
US2001009307 AA	20010726	US20010769201	20010124
US6620353 BB	20030916	US20010769201	20010124
US2004046273 AA	20040311	US20030661178	20030912
WO9526823 A1	19951012	WO1995US03166	19950314
WO9812036 A1	19980326	WO1997US10779	19970620

Priority:

US19940220906 19940331
US19950478553 19950607
US19980139923 19980826
US20010769201 20010124
WO1995US03166 19950314
US19960710411 19960917
AU19990017336 19990216
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AU19950021195 19950314
WO1997US10779 19970620
US19990399524 19990920

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Inventor(s): (std): ABRAMS FREDRIC L ; ABRAMS FREDRIC LOUIS ; ABRAMS L ; FREUND ROBERT ; FREUND ROBERT F

Inventor(s): FREDRIC L ABRAMS ; FREDRIC LOUIS ABRAMS ; NAME NOT GIVEN ; ROBERT F FREUND ; ROBERT FREUND

Agent(s): GOWLING LAFLEUR HENDERSON LLP; GRIFFITH HACK

Designated states: AT AU BE BR CA CH CN DE DK ES FI FR GB GR IE IT JP KR LI LU MC MX NL PT RU SE

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
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AT250980 E	20150314	PEXP		Calculated Patent Term Expiry	
AU199521195 A1	19951023	LSPB	+	published / reissued	
AU199734976 A1	19980414	LSPB	+	published / reissued	
AU199917336 A1	19990429	LSPB	+	published / reissued	
AU699303 B2	19981203	LSGT	+	granted / extensions (spc, cpc, pte)	
AU699303 B2	20020321	LSAS	PC	ASSIGNMENT REGISTERED	OldParty: FORMER OWNER WAS: MODERN TECHNOLOGIES CORP. PartyType: owner Owner: COMPOSITE TECHNOLOGIES CO., LLC
AU699303 B2	20150314	PEXP		Calculated Patent Term Expiry	
AU714532 B2	20000106	LSGT	+	granted / extensions (spc, cpc, pte)	
AU714532 B2	20000504	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU714532 B2	20020321	LSAS	PC	ASSIGNMENT REGISTERED	OldParty: FORMER OWNER WAS: MODERN TECHNOLOGIES CORP Owner: COMPOSITE TECHNOLOGIES CO., LLC PartyType: owner
AU714532 B2	20190216	PEXP		Calculated Patent Term Expiry	
CA2185809 AA	19960917	LSPB	+	published / reissued	
CA2185809 AA	20010425	LSES	+EEER	EXAMINATION REQUEST	
CA2185809 AA	20050530	LSLE	-FZDE	DEAD	
CA2265784 AA	19990315	LSPB	+	published / reissued	
CA2265784 AA	20010620	LSLE	-FZDE	DEAD	
DE69531862 D1	20041028	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69531862 T2	20040909	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69531862 T2	20041028	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69531862 T2	20150314	PEXP		Calculated Patent Term Expiry	
EP0751828 A1	19970108	LSPB	+	published / reissued	
EP0751828 A1	19970108	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 19960917
EP0751828 A1	19970108		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AT BE CH DE DK ES FR GB IT LI LU NL PT SE
EP0751828 A4	19980930	LSES	+A4	SUPPLEMENTARY SEARCH REPORT DRAWN UP AND DESPATCHED	Effective date: 19980810
EP0751828 A4	19980930		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A4 Country of Ref document: AT BE CH DE DK ES FR GB IT LI LU NL PT SE
EP0751828 A4	20010307	LSES	+17Q	FIRST EXAMINATION	Effective date: 20010123

				REPORT DESPATCHED	
EP0751828 A4	20020828	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	Owner: COMPOSITE TECHNOLOGIES CO.LLC PartyType: owner
EP0751828 B1	20031001	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0751828 B1	20031001		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: B1 Country of Ref document: AT BE CH DE DK ES FR GB IT LI LU NL PT SE
EP0751828 B1	20031001	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20031001 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: AT
EP0751828 B1	20031001	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20031001 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: BE
EP0751828 B1	20031001	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20031001 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: CH
EP0751828 B1	20031001	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20031001 Country of Ref document: IT
EP0751828 B1	20031001	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20031001 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: LI
EP0751828 B1	20031001	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20031001 Country of Ref document: NL
EP0751828 B1	20031001	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT;WARNING: LAPSES OF ITALIAN PATENTS WITH EFFECTIVE DATE BEFORE 2007 MAY HAVE OCCURRED AT ANY TIME BEFORE 2007. THE CORRECT EFFECTIVE DATE MAY BE DIFFERENT FROM THE ONE RECORDED. Lapsed date: 20031001 Country of Ref document: IT
EP0751828 B1	20031001	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref country code: GB Ref legal event code: FG4D
EP0751828 B1	20031015	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: EP Ref country code: CH
EP0751828 B1	20031106		REF	CORRESPONDS TO:	Kind code of Ref document: P Date of Ref document: 20031106 Ref document number: 69531862 Country of Ref document: DE
EP0751828 B1	20040101	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20040101 Country of Ref document: DK
EP0751828 B1	20040101	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED	Lapsed date: 20040101 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT

				VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: SE
EP0751828 B1	20040112	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20040112 Country of Ref document: ES
EP0751828 B1	20040301	LSLE	-NLV1	NL: LAPSED OR ANNULLED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT	Ref country code: EP
EP0751828 B1	20040314	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20040314 Country of Ref document: LU
EP0751828 B1	20040331	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: PL
EP0751828 B1	20040716		+ET	FR: TRANSLATION FILED	
EP0751828 B1	20040922	LSGT	+26N	NO OPPOSITION FILED	Effective date: 20040702
EP0751828 B1	20070213	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20070213 Year of fee payment: 13 Country of Ref document: GB
EP0751828 B1	20080102	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20040301 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: PT
EP0751828 B1	20080430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 13 Payment date: 20070207 Country of Ref document: FR
EP0751828 B1	20081126	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	Effective date: 20080314 Ref country code: EP
EP0751828 B1	20081219	LSLE	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20081125 Ref country code: FR Ref legal event code: ST
EP0751828 B1	20090430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20080331 Country of Ref document: FR
EP0751828 B1	20090630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20080314 Country of Ref document: GB
EP0751828 B1	20130731	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20130513 Year of fee payment: 19 Country of Ref document: DE
EP0751828 B1	20141001	LSDW	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: R119 Ref country code: DE Ref document number: 69531862 Country of Ref document: DE
EP0751828 B1	20150115	LSDW	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20141001 Ref country code: DE Ref document number: 69531862 Ref legal event code: R119 Country of Ref document: DE

EP0751828 B1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20141001 Country of Ref document: DE
EP0751828 B1	20150314	PEXP		Calculated Patent Term Expiry	
TW267973 B	19960111	LSGT	+	granted / extensions (spc, cpc, pte)	
TW267973 B	20150317	PEXP		Calculated Patent Term Expiry	
US2001009307 AA	20010726	LSPB	+	published / reissued	
US2001009307 AA	20020118	LSAS	AS	ASSIGNMENT	Effective date: 20000714 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:MODERN TECHNOLOGIES CORP.;REEL/FRAME:012495/0877 Owner: COMPOSITE TECHNOLOGIES CO. LLC, OHIO PartyType: owner
US2004046273 AA	20040311	LSPB	+	published / reissued	
US2004046273 AA	20060330	LSAS	AS	ASSIGNMENT	Effective date: 20000313 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:MODERN TECHNOLOGIES CORP.;REEL/FRAME:017390/0738 Owner: COMPOSITE TECHNOLOGIES CO. LLC, OHIO PartyType: owner
US2004046273 AA	20080222	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2004046273 AA	20080222		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US5591384 A	19940331	LSAS	AS	ASSIGNMENT	Effective date: 19940331 PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:ABRAMS, FREDRIC L .;FREUND, ROBERT F.;REEL/FRAME:006959/0075 Owner: MODERN TECHNOLOGIES CORP., OHIO
US5591384 A	19961226	LSGT	PAT1	Patented Case	
US5591384 A	19961226	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US5591384 A	19970107	LSGT	+	granted / extensions (spc, cpc, pte)	
US5591384 A	20000629	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5591384 A	20000823	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:MODERN TECHNOLOGIES CORP.;REEL/FRAME:011122/0591 Effective date: 20000313 Owner: COMPOSITE TECHNOLOGIES CO., LLC, OHIO PartyType: owner
US5591384 A	20040601	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US5591384 A	20080618	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US5591384 A	20140331	PEXP		Calculated Patent Term Expiry	
US5637329 A	19970529	LSGT	PAT1	Patented Case	
US5637329 A	19970529	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US5637329 A	19970610	LSGT	+	granted / extensions (spc, cpc, pte)	
US5637329 A	19971028	LSRE	CC	CERTIFICATE OF CORRECTION	
US5637329 A	19981013	LSAS	AS	ASSIGNMENT	Owner: MODERN TECHNOLOGIES CORP., OHIO OldParty: ASSIGNMENT OF ASSIGNORS

					INTEREST;ASSIGNORS:ABRAMS. FREDERIC L.;FREUND, ROBERT F.;REEL/FRAME:009534/0288 Effective date: 19940331 PartyType: owner
US5637329 A	20000823	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:MODERN TECHNOLOGIES CORP.;REEL/FRAME:011122/0591 PartyType: owner Effective date: 20000313 Owner: COMPOSITE TECHNOLOGIES CO., LLC, OHIO
US5637329 A	20001207	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5637329 A	20041119	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US5637329 A	20080911	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US5637329 A	20150607	PEXP		Calculated Patent Term Expiry	
US5800757 A	19961021	LSAS	AS	ASSIGNMENT	Effective date: 19960917 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:FREUND, ROBERT F.;ABRAMS, FREDIC L.;REEL/FRAME:008188/0536 PartyType: owner Owner: MODERN TECHNOLOGIES CORP., OHIO
US5800757 A	19980727	LSGT	PAT1	Patented Case	
US5800757 A	19980727	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US5800757 A	19980901	LSGT	+	granted / extensions (spc, cpc, pte)	
US5800757 A	20000823	LSAS	AS	ASSIGNMENT	Effective date: 20000313 PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:MODERN TECHNOLOGIES CORP.;REEL/FRAME:011122/0591 Owner: COMPOSITE TECHNOLOGIES CO., LLC, OHIO
US5800757 A	20020211	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5800757 A	20060131	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US5800757 A	20100225	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US5800757 A	20160917	PEXP		Calculated Patent Term Expiry	
US5954601 A	19981013	LSAS	AS	ASSIGNMENT	Effective date: 19960917 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:FREUND, ROBERT F.;ABRAMS, FREDRIC L.;REEL/FRAME:009541/0853 Owner: MODERN TECHNOLOGIES CORP., OHIO PartyType: owner
US5954601 A	19990910	LSGT	PAT1	Patented Case	
US5954601 A	19990910	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US5954601 A	19990921	LSGT	+	granted / extensions (spc, cpc, pte)	
US5954601 A	20020118	LSAS	AS	ASSIGNMENT	PartyType: owner Effective date: 20000714 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:MODERN TECHNOLOGIES CORP.;REEL/FRAME:012495/0877 Owner: COMPOSITE TECHNOLOGIES CO. LLC, OHIO
US5954601 A	20020923	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US5954601 A	20061228	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US5954601 A	20110306	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US5954601 A	20180826	PEXP		Calculated Patent Term Expiry	
US6190586 BA	20000823	LSAS	AS	ASSIGNMENT	PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:MODERN TECHNOLOGIES CORP.;REEL/FRAME:011122/0591

					Owner: COMPOSITE TECHNOLOGIES CO., LLC, OHIO Effective date: 20000313
US6190586 BA	20000824	LSAS	AS	ASSIGNMENT	Owner: MODERN TECHNOLOGIES CORP., OHIO OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:ABAMS, FREDRIC L.;FREUND, ROBERT F.;REEL/FRAME:011126/0125 Effective date: 19960917 PartyType: owner
US6190586 BA	20010202	LSGT	PAT1	Patented Case	
US6190586 BA	20010202	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US6190586 BA	20010220	LSGT	+	granted / extensions (spc, cpc, pte)	
US6190586 BA	20040716	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US6190586 BA	20080622	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US6190586 BA	20120223	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US6190586 BA	20190920	PEXP		Calculated Patent Term Expiry (a terminal disclaimer has been filed)	
US6620353 BB	20030916	LSGT	+	granted / extensions (spc, cpc, pte)	
US6620353 BB	20061228	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US6620353 BB	20110227	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US6620353 BB	20150424		REMI	MAINTENANCE FEE REMINDER MAILED	
US6620353 BB	20150916	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6620353 BB	20151012	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6620353 BB	20151012	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US6620353 BB	20151103	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20150916
US6620353 BB	20210312	PEXP		Calculated Patent Term Expiry (PTA 47 days and a terminal disclaimer has been filed)	
WO9526823 A1	19951012	LSPB	+	published / reissued	
WO9526823 A1	19951012		+AK	DESIGNATED STATES	Kind code of Ref document: A1 Country of Ref document: AU BR CA CN JP KR MX RU
WO9526823 A1	19951012		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: A1 Country of Ref document: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
WO9526823 A1	19951213		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	
WO9526823 A1	19951228		DFPE	REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH MONTH FROM PRIORITY DATE (PCT APPLICATION FILED BEFORE 20040101)	
WO9526823 A1	19960917	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 1995914028 Country of Ref document: EP
WO9526823 A1	19960917	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2185809 Country of Ref document: CA

WO9526823 A1	19970108	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	Ref document number: 1995914028 Country of Ref document: EP
WO9526823 A1	20031001	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	Ref document number: 1995914028 Country of Ref document: EP
WO9812036 A1	19980326	LSPB	+	published / reissued	
WO9812036 A1	19980326		+AK	DESIGNATED STATES	Kind code of Ref document: A1 Country of Ref document: AU BR CA JP KR MX
WO9812036 A1	19980326		+AL	DESIGNATED COUNTRIES FOR REGIONAL PATENTS	Kind code of Ref document: A1 Country of Ref document: AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE
WO9812036 A1	19980528		DFPE	REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH MONTH FROM PRIORITY DATE (PCT APPLICATION FILED BEFORE 20040101)	
WO9812036 A1	19980729		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	
WO9812036 A1	19990315	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 2265784 Country of Ref document: CA
WO9812036 A1	19990315	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 2265784 Kind code of Ref document: A Country of Ref document: CA
WO9812036 A1	19990604	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref document number: 1998514648 Country of Ref document: JP
WO9812036 A1	20000126	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	Ref country code: WO

92) Family number: 23173623 (US2002063358 AA)

Title: COMPOSITE PRODUCTS COMPRISING CELLULOSIC MATERIALS AND SYNTHETIC RESINS AND METHODS OF MAKING THE SAME

Abstract: New wood-synthetic resin composite products and methods of forming these products are provided. The products comprise a cellulosic or fibrous material and polypropylene (preferably reactor flake polypropylene). The products are formed by passing ingredients including the fibrous material and polypropylene through an **extruder** (preferably a twin **screw extruder**) at temperatures of from about 150-260 degrees centigrade The **extruded** composite products have physical properties very similar to those of natural wood, including high tensile strengths, high **compressive** strengths, and high densities.

Classifications:
International (IPC 8-9): B27N3/00 B27N3/08 B27N3/28 B29C47/00
International (IPC 1-7): B29C47/00 B29C47/40 B29C47/60 C08J5/10 C08K1/100 C08K11/00 C08L2/312 C08L23/12
CPC: B27N3/002 B27N3/28 B29C48/022 B29C48/05 B29K2023/12 B29K2105/06 B29K2711/14
US: 264/211 264/211.21 264/211.210S 264/211.23 264/211.230S 264/211P 264/331.17 524/13 524/15 524/16 524/9

Family:

Publication number	Publication date	Application number	Application date
US6586503 BA	20030701	US20000691772	20001018
US2002063358 AA	20020530	US20010790117	20010221
US6737006 BB	20040518	US20010790117	20010221

Priority:
US20000691772 20001018 US20010790117 20010221

Probable Assignee: INTEGRITY COMPOSITES LLC

Assignee(s): (std): CORRECT BUILDING PRODUCTS L L

Assignee(s): BANK OF MONTREAL AGENT AS ; BARRETTE OUTDOOR LIVING INC ; CORRECT BUILDING PRODUCTS L L C ; CREDIT SUISSE CAYMAN ISLANDS BRANCH AGENT AG AS ; GAF DECKING SYSTEMS LLC ; GROHMAN MARTIN ; INTEGRITY COMPOSITES LLC ; LOBSTER ACQUISITION LLC ; NBT BANK NATIONAL ASSOCIATION

Inventor(s): (std): GROHMAN MARTIN

Inventor(s): MARTIN GROHMAN

Agent(s): HOVEY WILLIAMS LLP

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
US2002063358 AA	20020530	LSPB	+	published / reissued	
US6586503 BA	20001018	LSAS	AS	ASSIGNMENT	Effective date: 20001014 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:GROHMAN, MARTIN;REEL/FRAME:011220/0799 Owner: CORRECT BUILDING PRODUCTS, L.L.C., MAINE PartyType: owner
US6586503 BA	20030612	LSGT	PAT1	Patented Case	
US6586503 BA	20030612	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US6586503 BA	20030701	LSGT	+	granted / extensions (spc, cpc, pte)	
US6586503 BA	20061228	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US6586503 BA	20110103	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US6586503 BA	20120209	LSAS	AS	ASSIGNMENT	Owner: LOBSTER ACQUISITION LLC, DELAWARE PartyType: owner Effective date: 20090828 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:CORRECT BUILDING PRODUCTS, L.L.C.;REEL/FRAME:027677/0030
US6586503 BA	20120209	LSAS	AS	ASSIGNMENT	OldParty: CHANGE OF NAME;ASSIGNOR:LOBSTER ACQUISITION LLC;REEL/FRAME:027677/0313 PartyType: owner Owner: GAF DECKING SYSTEMS LLC, DELAWARE Effective date: 20090626
US6586503 BA	20120312	LSAS	AS	ASSIGNMENT	PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:BUILDING MATERIALS CORPORATION OF AMERICA D/B/A GAF;GAF DECKING SYSTEMS LLC;ELK COMPOSITE BUILDING PRODUCTS, INC.;AND OTHERS;REEL/FRAME:027846/0382

					Owner: INTEGRITY COMPOSITES LLC, MAINE Effective date: 20120308
US6586503 BA	20141229	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 12
US6586503 BA	20160506	LSAS	AS	ASSIGNMENT	PartyType: owner Effective date: 20160505 Owner: NBT BANK, NATIONAL ASSOCIATION, MAINE OldParty: SECURITY INTEREST;ASSIGNOR:INTEGRITY COMPOSITES LLC;REEL/FRAME:038489/0017
US6586503 BA	20180702	LSAS	AS	ASSIGNMENT	Effective date: 20180629 Owner: BARRETTE OUTDOOR LIVING, INC., OHIO OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:INTEGRITY COMPOSITES LLC;REEL/FRAME:046249/0279 PartyType: owner
US6586503 BA	20180808	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.)
US6586503 BA	20181012	LSAS	AS	ASSIGNMENT	OldParty: RELEASE BY SECURED PARTY;ASSIGNOR:NBT BANK, NATIONAL ASSOCIATION;REEL/FRAME:047148/0241 Owner: INTEGRITY COMPOSITES, LLC, MAINE PartyType: owner Effective date: 20181011
US6586503 BA	20181012	LSAS	AS	ASSIGNMENT	Effective date: 20181011 Owner: BARRETTE OUTDOOR LIVING, INC., OHIO OldParty: RELEASE BY SECURED PARTY;ASSIGNOR:NBT BANK, NATIONAL ASSOCIATION;REEL/FRAME:047148/0241 PartyType: owner
US6586503 BA	20201018	PEXP		Calculated Patent Term Expiry	
US6586503 BA	20201102	LSAS	AS	ASSIGNMENT	Effective date: 20201102 Owner: BANK OF MONTREAL, AS AGENT, CANADA PartyType: owner OldParty: SECURITY INTEREST;ASSIGNOR:BARRETTE OUTDOOR LIVING, INC.;REEL/FRAME:054274/0768
US6586503 BA	20201102	LSAS	AS	ASSIGNMENT	OldParty: INTELLECTUAL PROPERTY SECURITY AGREEMENT;ASSIGNOR:BARRETTE OUTDOOR LIVING, INC.;REEL/FRAME:054280/0549 Effective date: 20201102 Owner: CREDIT SUISSE AG, CAYMAN ISLANDS BRANCH, AS AGENT, NEW YORK PartyType: owner
US6737006 BB	20040429	LSGT	PAT1	Patented Case	
US6737006 BB	20040518	LSGT	+	granted / extensions (spc, cpc, pte)	
US6737006 BB	20071026	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US6737006 BB	20111019	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US6737006 BB	20120209	LSAS	AS	ASSIGNMENT	Owner: CORRECT BUILDING PRODUCTS, L.L.C., MAINE OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:GROHMAN, MARTIN;REEL/FRAME:027676/0644 Effective date: 20001019 PartyType: owner
US6737006 BB	20120209	LSAS	AS	ASSIGNMENT	Effective date: 20090626 OldParty: CHANGE OF NAME;ASSIGNOR:LOBSTER ACQUISITION LLC;REEL/FRAME:027677/0313 Owner: GAF DECKING SYSTEMS LLC, DELAWARE PartyType: owner
US6737006 BB	20120209	LSAS	AS	ASSIGNMENT	Owner: LOBSTER ACQUISITION LLC, DELAWARE Effective date: 20090828 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:CORRECT BUILDING PRODUCTS, L.L.C.;REEL/FRAME:027677/0030 PartyType: owner
US6737006 BB	20120312	LSAS	AS	ASSIGNMENT	PartyType: owner Effective date: 20120308 Owner: INTEGRITY COMPOSITES LLC, MAINE OldParty: ASSIGNMENT OF ASSIGNORS

					INTEREST;ASSIGNORS:BUILDING MATERIALS CORPORATION OF AMERICA D/B/A GAF;GAF DECKING SYSTEMS LLC;ELK COMPOSITE BUILDING PRODUCTS, INC.;AND OTHERS;REEL/FRAME:027846/0382
US6737006 BB	20151224		REMI	MAINTENANCE FEE REMINDER MAILED	
US6737006 BB	20160506	LSAS	AS	ASSIGNMENT	Effective date: 20160505 Owner: NBT BANK, NATIONAL ASSOCIATION, MAINE OldParty: SECURITY INTEREST;ASSIGNOR:INTEGRITY COMPOSITES LLC;REEL/FRAME:038489/0017 PartyType: owner
US6737006 BB	20160518	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6737006 BB	20160613	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6737006 BB	20160705	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20160518
US6737006 BB	20180212	LSRE	+PRDP	PATENT REINSTATED DUE TO THE ACCEPTANCE OF A LATE MAINTENANCE FEE	Effective date: 20180213
US6737006 BB	20180213	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: PETITION RELATED TO MAINTENANCE FEES GRANTED (ORIGINAL EVENT CODE: PMFG)
US6737006 BB	20180213	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: PETITION RELATED TO MAINTENANCE FEES FILED (ORIGINAL EVENT CODE: PMFP)
US6737006 BB	20180213	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: SURCHARGE, PETITION TO ACCEPT PYMT AFTER EXP, UNINTENTIONAL. (ORIGINAL EVENT CODE: M2558); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US6737006 BB	20180213	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	Year of fee payment: 12
US6737006 BB	20180213	LSGT	PAT1	Patented Case	
US6737006 BB	20180213	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US6737006 BB	20180702	LSAS	AS	ASSIGNMENT	PartyType: owner Owner: BARRETTE OUTDOOR LIVING, INC., OHIO OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:INTEGRITY COMPOSITES LLC;REEL/FRAME:046249/0279 Effective date: 20180629
US6737006 BB	20180810	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.)
US6737006 BB	20181012	LSAS	AS	ASSIGNMENT	Effective date: 20181011 Owner: BARRETTE OUTDOOR LIVING, INC., OHIO OldParty: RELEASE BY SECURED PARTY;ASSIGNOR:NBT BANK, NATIONAL ASSOCIATION;REEL/FRAME:047148/0241 PartyType: owner
US6737006 BB	20181012	LSAS	AS	ASSIGNMENT	Effective date: 20181011 Owner: INTEGRITY COMPOSITES, LLC, MAINE OldParty: RELEASE BY SECURED PARTY;ASSIGNOR:NBT BANK, NATIONAL ASSOCIATION;REEL/FRAME:047148/0241 PartyType: owner
US6737006 BB	20201102	LSAS	AS	ASSIGNMENT	OldParty: SECURITY INTEREST;ASSIGNOR:BARRETTE OUTDOOR LIVING, INC.;REEL/FRAME:054274/0768

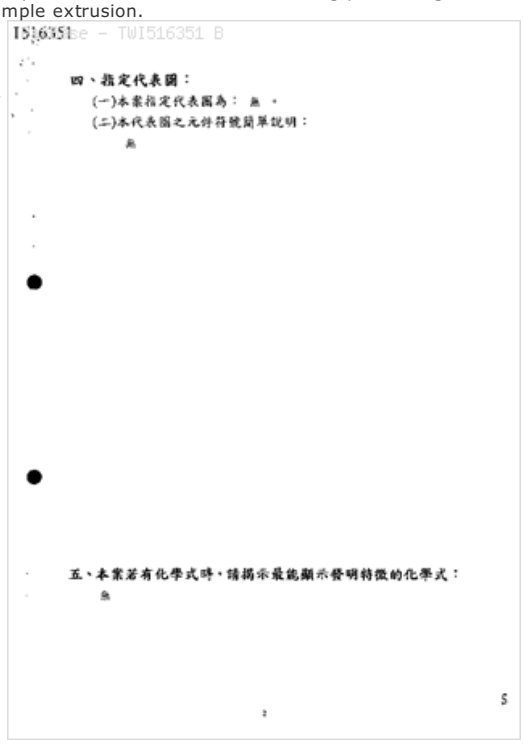
					Owner: BANK OF MONTREAL, AS AGENT, CANADA PartyType: owner Effective date: 20201102
US6737006 BB	20201102	LSAS	AS	ASSIGNMENT	Owner: CREDIT SUISSE AG, CAYMAN ISLANDS BRANCH, AS AGENT, NEW YORK Effective date: 20201102 OldParty: INTELLECTUAL PROPERTY SECURITY AGREEMENT;ASSIGNOR:BARRETTE OUTDOOR LIVING, INC.;REEL/FRAME:054280/0549 PartyType: owner
US6737006 BB	20220108	PEXP		Calculated Patent Term Expiry (PTA 321 days)	

93) Family number: 49334203 (US2013055583 AA)

Title: METHOD FOR PRODUCING A POLYMER MATERIAL FILLED WITH LONG FIBERS

Abstract: The present invention relates to a method for producing a polymer material filled with longer fibers, wherein the fibers, which typically have a residual moisture content of approximately 5 to 8 percent and a minimum length of more than 2 mm, and the carrier material are mixed and heated in a reactor or cutter-compacter, constantly moving them and optionally comminuting the carrier material, and constantly maintaining the pourability and/or lumpiness. According to the invention, the conditions, and particularly the temperature, in the reactor are adjusted so as to dry the fibers to the lowest residual moisture possible, at which the fibers are just barely sufficiently flexible so as not to break during processing in the reactor, or during an optionally following **compression** step, for example extrusion.

Classifications:
International (IPC 8-9): B27N B27N1/02 B27N3/00 B27N3/04 B27N3/28 B29B15/14 B29B7/92 B29B9/06 B29B9/14 B29C B29C47/00 B29C47/10 C08J C08J3/00 C08J3/20 C08J5/00 C08J5/04 C08J5/06 C08L101/00 C08L97/02 F26B7/00
CPC: B27N3/04 B27N3/28 B29C48/05 B29C48/08 B29C48/285 B29C48/287 B29C48/2886 B29K2105/06 B29K2105/08 C08J2323/12 C08J3/20 C08J3/203 C08J5/04 C08J5/045 C08J5/06 H04L27/2603 Y10T428/24694
US: 229/930 34/380 34/381 34/413 34/90 428/182 524/498


TWI516351 B

四、指定代表圖：
(一)本案指定代表圖為：無。
(二)本代表圖之元件符號簡單說明：
無

五、本案若有化學式時，請揭示最能顯示發明特徵的化學式：
無

Family:

Publication number	Publication date	Application number	Application date
AT509429 A2	20110815	AT20100000072	20100120
AT509429 A3	20160615	AT20100000072	20100120
AT509429 B1	20160915	AT20100000072	20100120
AU2011207140 AA	20120802	AU20110207140	20110117
AU2011207140 BB	20140828	AU20110207140	20110117
BR112012018112 A2	20170620	BR20121118112	20110117
CA2787398 AA	20110728	CA20112787398	20110117
CN102712101 A	20121003	CN201180006754	20110117
CN102712101 B	20160323	CN201180006754	20110117
DE502011001715 D1	20140123	DE201150001715T	20110117
DK2525951 T3	20140217	DK20110702385T	20110117
EP2525951 A1	20121128	EP20110702385	20110117
EP2525951 B1	20131127	EP20110702385	20110117
ES2439078 T3	20140121	ES20110702385T	20110117
IN05485DN2012 A	20140307	IN2012DN05485	20120620
JP2013517159 T2	20130516	JP20120549206T	20110117
JP5343170 B2	20131113	JP20120549206T	20110117
KR101584650 B1	20160112	KR20127021773	20110117
KR20120123684 A	20121109	KR20127021773	20110117
MX2012008048 A1	20120801	MX20120008048	20110117
PL2525951 T3	20140430	PL20110702385T	20110117
PT2525951 T	20140205	PT20110702385T	20110117
RU2012135553 A	20140227	RU20120135553	20110117
RU2526277 C2	20140820	RU20120135553	20110117
SI2525951 T1	20140430	SI20110030099T	20110117
TW201129454 A	20110901	TW20110101494	20110114
TWI516351 B	20160111	TW20110101494	20110114
UA106902 C2	20141027	UA20120009868	20110117
US2013055583 AA	20130307	US20110574234	20110117
US8661705 BB	20140304	US20110574234	20110117
WO11088487 A1	20110728	WO2011AT00027	20110117
ZA201204119 A	20200930	ZA20120004119	20110117

Priority:
AT20100000072 20100120 WO2011AT00027 20110117 EP20110702385 20110117

Probable Assignee: EREMA

Assignee(s): (std): EHREMA EHNDZHINIRING RISAJKLING MASHINEN U ANLAGEN GEZELL SHAFT M B KH ; EREMA ; EREMA ENG RECYCLING MASCH AND ANLAGEN GMBH ; EREMA ENG RECYCLING MASCH U ANLAGEN GMBH ;

	EREMA ENG RECYCLING MASCHINEN AND ANLAGEN GMBH ; EREMA ENGINEERING RECYCLING MASCH U ANLAGEN GMBH ; EREMA ENGINEERING RECYCLING MASCHINEN AND ANLAGEN GMBH ; FEICHTINGER KLAUS ; HACKL MANFRED ; REISINGER WALTER ; WENDELIN GERHARD
Assignee(s):	EREMA ENGINEERING RECYCLING MASCH AND ANLAGEN GES MBH ; EREMA ENGINEERING RECYCLING MASCH U ANLAGEN GES M B H ; EREMA ENGINEERING RECYCLING MASCH U ANLAGEN GES MB ; EREMA ENGINEERING RECYCLING MASCH U ANLAGEN GESELISCHAFT MBH FRIEDORF ; EREMA ENGINEERING RECYCLING MASCH U ANLAGENGESELLSCHAFT M B H ; EREMA ENGINEERING RECYCLING MASCHINEN AND ANLAGEN GES M B H ; EREMA ENGINEERING RECYCLING MASCHINEN U ANLAGEN GES MBH ; EREMA ENGINEERING RECYCLING MASCHINEN U ANLAGENGESELISCHAFT MBH FRIEDORF ; EREMA ENGINEERING RECYCLING MASCHINEN U ANLAGENGESELLSCHAFT M B H ; EREMA ENGINEERING RECYCLING MASCHINEN UND ANLAGEN GESELLSCHAFT M B H ; EREMA ENGINEERING RECYCLING MASCHINEN UND ANLAGENGESELISCHAFT M B H FRIEDORF
Inventor(s): (std)**:**	FEICHTINGER KLAUS ; FEJKHTINGER KLAUS ; GERHARD WENDELIN ; HACKL MANFRED ; KHAKL MANFRED ; KLAUS FEICHTINGER ; MANFRED HACKI ; MANFRED HACKL ; RAJZINGER VAL TER ; REISINGER WALTER ; VENDELIN GERKHARD ; WALTER REISINGER ; WALTER RESINGER ; WENDELIN GERHARD
Agent(s):	KILPATRICK TOWNSEND AND STOCKTON LLP; LORD AND CO; MARKS AND CLERK; MUELLER AND SCHUBERT PATENTANWAELTE; OGAWA TOSHIHARU; SANZ BERMELL SANZ BERMELL ALEJANDRO; SENMYO KENJI; WILDHACK AND JELLINEK; WILDHACK AND JELLINEK PATENTANWAELTE
Designated states:	AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AT509429 A2	20110815	LSPB	+	published / reissued	
AT509429 B1	20160915	LSGT	+	granted / extensions (spc, cpc, pte)	
AT509429 B1	20300120	PEXP		Calculated Patent Term Expiry	
AU2011207140 AA	20120802	LSPB	+	published / reissued	
AU2011207140 AA	20150115	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2011207140 AA	20170810	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU2011207140 BB	20140828	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2011207140 BB	20310117	PEXP		Calculated Patent Term Expiry	
BR112012018112 A2	20170620	LSPB	+	published / reissued	
BR112012018112 A2	20171121	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	
BR112012018112 A2	20180313	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	
CA2787398 AA	20110728	LSPB	+	published / reissued	
CA2787398 AA	20150120	LSES	+EEER	EXAMINATION REQUEST	Effective date: 20150106
CA2787398 AA	20180108	LSLE	-FZDE	DEAD	Effective date: 20171127
CN102712101 A	20121003	LSPB	+	published / reissued	
CN102712101 A	20121003	LSPB	+C06	PUBLICATION	
CN102712101 A	20121128		C10	ENTRY INTO SUBSTANTIVE EXAMINATION	

CN102712101 B	20160323	LSGT	+	granted / extensions (spc, cpc, pte)	
CN102712101 B	20160323	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN102712101 B	20310117	PEXP		Calculated Patent Term Expiry	
DE502011001715 D1	20130513		R079	AMENDMENT OF IPC MAIN CLASS	ClassificationScheme: IPC Text: PREVIOUS MAIN CLASS: B27N0003040000 ClassificationSymbol: B27N0003040000
DK2525951 T3	20140217	LSGT	+	granted / extensions (spc, cpc, pte)	
DK2525951 T3	20310117	PEXP		Calculated Patent Term Expiry	
EP2525951 A1	20121128	LSPB	+	published / reissued	
EP2525951 A1	20121128	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20120806
EP2525951 A1	20121128		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP2525951 A1	20130424		DAX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT (DELETED)	
EP2525951 A1	20130619		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: B27N 3/04 20060101AFI20130513BHEP
EP2525951 A1	20130619		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: C08J 3/20 20060101ALI20130513BHEP
EP2525951 A1	20130619		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: C08J 5/04 20060101ALI20130513BHEP
EP2525951 A1	20130619		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: B29C 47/10 20060101ALI20130513BHEP
EP2525951 A1	20130619		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: B27N 3/28 20060101ALI20130513BHEP
EP2525951 A1	20130717	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	Effective date: 20130621
EP2525951 A1	20140530	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20131127 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: HR
EP2525951 A1	20140530	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20140327 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: IS
EP2525951 A1	20140829	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA	Lapsed date: 20131127 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE

				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: EE
EP2525951 A1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160120 Year of fee payment: 6 Country of Ref document: DE
EP2525951 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160111 Year of fee payment: 6 Country of Ref document: AT
EP2525951 A1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160120 Year of fee payment: 6 Country of Ref document: SE
EP2525951 B1	20131127	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2525951 B1	20131127		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: B1 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP2525951 B1	20131127	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: FG4D Ref country code: GB Text: NOT ENGLISH
EP2525951 B1	20131129	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: EP
EP2525951 B1	20131215	LSNP	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20131215 Kind code of Ref document: T Ref country code: AT Ref document number: 642481 Ref legal event code: REF Country of Ref document: AT
EP2525951 B1	20140101	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: FG4D Ref country code: IE Text: LANGUAGE OF EP DOCUMENT: GERMAN
EP2525951 B1	20140115		REG	REFERENCE TO A NATIONAL CODE	PartyType: representative Ref country code: CH Representative: PATWIL AG, CH Ref legal event code: NV
EP2525951 B1	20140121	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref document number: 2439078 Effective date: 20140121 Kind code of Ref document: T3 Ref country code: ES Ref legal event code: FG2A Country of Ref document: ES
EP2525951 B1	20140123	LSPB	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: R096 Effective date: 20140123 Ref country code: DE Ref document number: 502011001715 Country of Ref document: DE
EP2525951 B1	20140128		REG	REFERENCE TO A NATIONAL CODE	Ref country code: SE Ref legal event code: TRGR
EP2525951 B1	20140205		REG	REFERENCE TO A NATIONAL CODE	Effective date: 20140123 Ref country code: PT Ref legal event code: SC4A Text: AVAILABILITY OF NATIONAL TRANSLATION
EP2525951 B1	20140217		REG	REFERENCE TO A NATIONAL CODE	Effective date: 20140214 Ref country code: DK Ref legal event code: T3
EP2525951 B1	20140226	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: T3 Ref country code: NL
EP2525951 B1	20140227	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref country code: RO Ref legal event code: EPE
EP2525951 B1	20140425	LSRV	REG	REFERENCE TO A NATIONAL	Ref legal event code: MG4D Ref country code: LT

				CODE	
EP2525951 B1	20140430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20140327 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: IS
EP2525951 B1	20140430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20131127 Country of Ref document: FI
EP2525951 B1	20140430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20131127 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: LT
EP2525951 B1	20140430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20140227 Country of Ref document: NO
EP2525951 B1	20140430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20131127 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: HR
EP2525951 B1	20140430		REG	REFERENCE TO A NATIONAL CODE	Ref country code: PL Ref legal event code: T3
EP2525951 B1	20140506		REG	REFERENCE TO A NATIONAL CODE	Ref country code: SK Ref document number: E 15752 Ref legal event code: T3 Country of Ref document: SK
EP2525951 B1	20140530	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20131127 Country of Ref document: RS
EP2525951 B1	20140530	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20131127 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: LV
EP2525951 B1	20140530	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20131127 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: CY
EP2525951 B1	20140731	LSLE	-PG25	LAPSED IN A CONTRACTING	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A

				STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20131127 Country of Ref document: EE
EP2525951 B1	20140828	LSRE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: DE Ref legal event code: R097 Ref document number: 502011001715 Country of Ref document: DE
EP2525951 B1	20141105	LSGT	+26N	NO OPPOSITION FILED	Effective date: 20140828
EP2525951 B1	20141105	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: MM4A Ref country code: IE
EP2525951 B1	20141211	LSRE	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20140828 Ref document number: 502011001715 Ref country code: DE Ref legal event code: R097 Country of Ref document: DE
EP2525951 B1	20150128	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref country code: HU Ref legal event code: AG4A Ref document number: E021489 Country of Ref document: HU
EP2525951 B1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20140117 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: IE
EP2525951 B1	20150430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20131127 Country of Ref document: MC
EP2525951 B1	20160121	LSFE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: FR Ref legal event code: PLFP Year of fee payment: 6 Country of Ref document: FR
EP2525951 B1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20131127 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: MT
EP2525951 B1	20160229	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20151224 Year of fee payment: 6 Country of Ref document: RO
EP2525951 B1	20160331	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160125 Year of fee payment: 6 Country of Ref document: LU
EP2525951 B1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20131127 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: SM

EP2525951 B1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160107 Year of fee payment: 6 Country of Ref document: TR
EP2525951 B1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20160120 Country of Ref document: DK
EP2525951 B1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160120 Year of fee payment: 6 Country of Ref document: CH
EP2525951 B1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160127 Year of fee payment: 6 Country of Ref document: IT
EP2525951 B1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160115 Year of fee payment: 6 Country of Ref document: CZ
EP2525951 B1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160112 Year of fee payment: 6 Country of Ref document: ES
EP2525951 B1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160114 Year of fee payment: 6 Country of Ref document: SK
EP2525951 B1	20160429	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20160113 Country of Ref document: BG
EP2525951 B1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160120 Year of fee payment: 6 Country of Ref document: GB
EP2525951 B1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160120 Year of fee payment: 6 Country of Ref document: BE
EP2525951 B1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20151224 Year of fee payment: 6 Country of Ref document: SI

EP2525951 B1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160105 Year of fee payment: 6 Country of Ref document: PL
EP2525951 B1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160120 Year of fee payment: 6 Country of Ref document: HU
EP2525951 B1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 6 Payment date: 20160115 Country of Ref document: PT
EP2525951 B1	20160531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20160121 Year of fee payment: 6 Country of Ref document: FR
EP2525951 B1	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20140228 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: GR
EP2525951 B1	20170331	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20170119 Year of fee payment: 7 Country of Ref document: NL
EP2525951 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20170119 Country of Ref document: SE
EP2525951 B1	20170428	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20170120 Year of fee payment: 7 Country of Ref document: DE
EP2525951 B1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20170131 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: BE
EP2525951 B1	20170531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Year of fee payment: 7 Payment date: 20170103 Country of Ref document: AT
EP2525951 B1	20170821	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: DK Effective date: 20170131 Ref legal event code: EBP

EP2525951 B1	20170831	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: PL
EP2525951 B1	20170927	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	Effective date: 20170117 Ref country code: EP
EP2525951 B1	20171003	LSLE	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20170117 Ref country code: SK Ref document number: E 15752 Ref legal event code: MM4A Country of Ref document: SK
EP2525951 B1	20171027	LSLE	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20170929 Ref country code: FR Ref legal event code: ST
EP2525951 B1	20171030	LSLE	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20170912 Ref country code: SI Ref legal event code: KO00
EP2525951 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20170117 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: CZ
EP2525951 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20170117 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: SK
EP2525951 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20170131 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: CH
EP2525951 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20170117 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: RO
EP2525951 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20170131 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: LI
EP2525951 B1	20171031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20170131 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: FR
EP2525951 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20170118 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: HU
EP2525951 B1	20171130	LSLE	-PG25	LAPSED IN A	Lapsed date: 20170117

				CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: GB
EP2525951 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20170118 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: SI
EP2525951 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20170117 Country of Ref document: LU
EP2525951 B1	20171130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20170717 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: PT
EP2525951 B1	20180131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20170131 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: DK
EP2525951 B1	20180215	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: BE Ref legal event code: MM Effective date: 20170131
EP2525951 B1	20180228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20170117 Country of Ref document: IT
EP2525951 B1	20180330	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180119 Year of fee payment: 8 Country of Ref document: NL
EP2525951 B1	20180430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20180122 Year of fee payment: 8 Country of Ref document: DE
EP2525951 B1	20180531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20170118 Country of Ref document: ES
EP2525951 B1	20180531	LSFE	+PGFP	ANNUAL FEE PAID TO	Payment date: 20180108 Year of fee payment: 8

				NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Country of Ref document: AT
EP2525951 B1	20180629	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20131127 Country of Ref document: MK
EP2525951 B1	20180828	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: EUG Ref country code: SE
EP2525951 B1	20180831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20170117 Country of Ref document: PL
EP2525951 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20131127 Country of Ref document: AL
EP2525951 B1	20181031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20180118 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: SE
EP2525951 B1	20181106	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: ES Ref legal event code: FD2A Effective date: 20181106
EP2525951 B1	20190131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20170808 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: BG
EP2525951 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190123 Year of fee payment: 9 Country of Ref document: DE
EP2525951 B1	20190430	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190121 Year of fee payment: 9 Country of Ref document: NL
EP2525951 B1	20190531	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20190116 Year of fee payment: 9 Country of Ref document: AT
EP2525951 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL	Payment date: 20200121 Year of fee payment: 10 Country of Ref document: DE

				OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	
EP2525951 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200121 Year of fee payment: 10 Country of Ref document: NL
EP2525951 B1	20200501	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200121 Year of fee payment: 10 Country of Ref document: AT
EP2525951 B1	20200726		REG	REFERENCE TO A NATIONAL CODE	PartyType: representative Ref country code: DE Ref legal event code: R082 Ref document number: 502011001715 Representative: MUELLER, THOMAS, DIPL.-ING., DE Country of Ref document: DE
EP2525951 B1	20310117	PEXP		Calculated Patent Term Expiry	
ES2439078 T3	20140121	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2439078 T3	20310117	PEXP		Calculated Patent Term Expiry	
IN05485DN2012 A	20140307	LSPB	+	published / reissued	
JP2013517159 T2	20130516	LSPB	+	published / reissued	
JP2013517159 T2	20130525		A601	WRITTEN REQUEST FOR EXTENSION OF TIME	Effective date: 20130524 Text: JAPANESE INTERMEDIATE CODE: A601
JP2013517159 T2	20130603		A602	WRITTEN PERMISSION OF EXTENSION OF TIME	Effective date: 20130531 Text: JAPANESE INTERMEDIATE CODE: A602
JP2013517159 T2	20130620	LSRE	A521	WRITTEN AMENDMENT	Effective date: 20130619 Text: JAPANESE INTERMEDIATE CODE: A523
JP2013517159 T2	20130709	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2013517159 T2	20130806	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	Effective date: 20130806 Text: JAPANESE INTERMEDIATE CODE: A01
JP2013517159 T2	20130815	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	Effective date: 20130812 Text: JAPANESE INTERMEDIATE CODE: A61
JP2013517159 T2	20130816	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	Text: JAPANESE INTERMEDIATE CODE: R150
JP5343170 B2	20130226	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Effective date: 20130226 Text: JAPANESE INTERMEDIATE CODE: A131
JP5343170 B2	20130808	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5343170 B2	20130813	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5343170 B2	20130816	LSGT	+R150	特許証 (Patent certificate)	

JP5343170 B2	20131113	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5343170 B2	20160812	LSFE	R20	特許料納付書 (Patent fee payment form)	
JP5343170 B2	20160816	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
JP5343170 B2	20160816	LSFE	+R250	年金領収書, 年金領収書 (分納) (Pension receipt, annuity receipt (scheduled))	
JP5343170 B2	20170816	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP5343170 B2	20310117	PEXP		Calculated Patent Term Expiry	
KR101584650 B1	20160112	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101584650 B1	20190102	LSFE	FPAY	ANNUAL FEE PAYMENT	Payment date: 20190102 Year of fee payment: 4
KR101584650 B1	20310117	PEXP		Calculated Patent Term Expiry	
KR20120123684 A	20121109	LSPB	+	published / reissued	
KR20120123684 A	20131202	LSES	A201	REQUEST FOR EXAMINATION	
KR20120123684 A	20150529	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20120123684 A	20151217	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR20120123684 A	20160106	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
MX2012008048 A1	20120801	LSPB	+	published / reissued	
MX2012008048 A1	20141007	LSGT	+FG	GRANT OR REGISTRATION	
PL2525951 T3	20140430	LSGT	+	granted / extensions (spc, cpc, pte)	
PT2525951 T	20140205	LSGT	+	granted / extensions (spc, cpc, pte)	
PT2525951 T	20310117	PEXP		Calculated Patent Term Expiry	
RU2012135553 A	20140227	LSPB	+	published / reissued	
RU2526277 C2	20140820	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2526277 C2	20170926	LSLE	-MM4A	THE PATENT IS INVALID DUE TO NON-PAYMENT OF FEES	Effective date: 20170118
RU2526277 C2	20310117	PEXP		Calculated Patent Term Expiry	
SI2525951 T1	20140430	LSGT	+	granted / extensions (spc, cpc, pte)	
SI2525951 T1	20310117	PEXP		Calculated Patent Term Expiry	
TW201129454 A	20110901	LSPB	+	published / reissued	
TWI516351 B	20160111	LSGT	+	granted / extensions (spc, cpc, pte)	
TWI516351 B	20171011	LSLE	-MM4A	ANNULMENT OR	

				LAPSE OF PATENT DUE TO NON-PAYMENT OF FEES	
TWI516351 B	20310114	PEXP		Calculated Patent Term Expiry	
UA106902 C2	20141027	LSGT	+	granted / extensions (spc, cpc, pte)	
UA106902 C2	20310117	PEXP		Calculated Patent Term Expiry	
US2013055583 AA	20130307	LSPB	+	published / reissued	
US2013055583 AA	20140212	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US8661705 BB	20121116	LSAS	AS	ASSIGNMENT	Owner: EREMA ENGINEERING RECYCLING MASCHINEN UND ANLAGEN Effective date: 20120723 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:HACKL, MANFRED;FEICHTINGER, KLAUS;WENDELIN, GERHARD;AND OTHERS;REEL/FRAME:029310/0104 PartyType: owner
US8661705 BB	20140212	LSGT	PAT1	Patented Case	
US8661705 BB	20140304	LSGT	+	granted / extensions (spc, cpc, pte)	
US8661705 BB	20170828	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	Year of fee payment: 4
US8661705 BB	20310117	PEXP		Calculated Patent Term Expiry	
WO11088487 A1	20110117	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 201180006754.2 Country of Ref document: CN
WO11088487 A1	20110728	LSPB	+	published / reissued	
WO11088487 A1	20110914		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Kind code of Ref document: A1 Ref document number: 11702385 Country of Ref document: EP
WO11088487 A1	20111110		DPE1	REQUEST FOR PRELIMINARY EXAMINATION FILED AFTER EXPIRATION OF 19TH MONTH FROM PRIORITY DATE (PCT APPLICATION FILED FROM 20040101)	
WO11088487 A1	20120620	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 5485/DELNP/2012 Country of Ref document: IN
WO11088487 A1	20120706	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2011207140 Country of Ref document: AU
WO11088487 A1	20120710	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: MX/A/2012/008048 Country of Ref document: MX
WO11088487 A1	20120718	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 2787398 Country of Ref document: CA
WO11088487 A1	20120719	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2012549206 Country of Ref document: JP
WO11088487 A1	20120720	LSNE	NENP	NON-ENTRY	Ref country code: DE

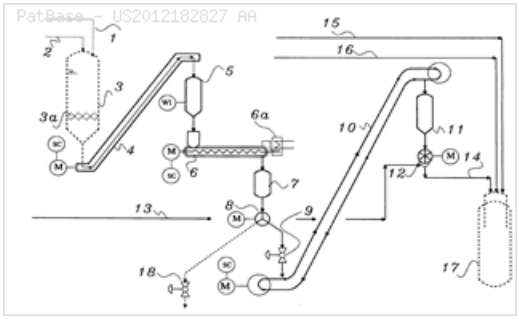
				INTO THE NATIONAL PHASE	
WO11088487 A1	20120802	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Date of Ref document: 20110117 Kind code of Ref document: A Ref document number: 2011207140 Country of Ref document: AU
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WO11088487 A1	20120820	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 20127021773 Country of Ref document: KR
WO11088487 A1	20120820	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2012135553 Country of Ref document: RU
WO11088487 A1	20121119	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 13574234 Country of Ref document: US
WO11088487 A1	20131231		REG	REFERENCE TO NATIONAL CODE	Ref country code: BR Ref document number: 112012018112 Ref legal event code: B01A Country of Ref document: BR
WO11088487 A1	20170620	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Effective date: 20120720 Kind code of Ref document: A2 Ref document number: 112012018112 Country of Ref document: BR
ZA201204119 A	20200930	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA201204119 A	20320603	PEXP		Calculated Patent Term Expiry	

94) Family number: 48517055 (US2012182827 AA)

Title: PROCESS FOR CONTINUOUS DRY CONVEYING OF CARBONACEOUS MATERIALS SUBJECT TO PARTIAL OXIDIZATION TO A PRESSURIZED GASIFICATION REACTOR

Abstract: The present invention demonstrates a continuous process for dry conveying of powdered coal either a blend of carbonaceous material subject to partial oxidization whereby the conveying **feed** will be transferred via a suitable conveyer from an atmospheric silo to a or a number of **extruder**'s LP Feeder Vessel and be fed over **extruder**'s inlet chute in continuo to a or a number of **extruder**(s), in which the dry **feed** material will be densificated along the **compression** zone of that **extruder** up to high pressure and will be discharged over outlet chute into a downstream said First Pressurized Vessel, wherefrom the **feeding** precursor will be transported via a or a number of in series pressurized tubular-drag **conveyor** to the said Second Pressurized Vessel, which is equipped with one or more Reactor **Feeding** Unit(s), referred to Splitter(s), each one consisting of a Star Valve, Reactor-**Feed** -Line and a said Injection-Line for pneumatic conveying individually, whereby the **feed** carbonaceous material will be exposed to with injection gaseous media (saturated steam, superheated steam, inter gases, natural gas, N2, CO2, purge gas from synthesis section of ammonia, methanol plant, purge gas from PSA of hydrogen purification section, hydrogen or a blend of those gaseous media in any composition) by the formation of any pneumatic bulk conveying mechanism into a downstream pressurized reactor, preferably a gasification reactor, wherein the transported precursor will be converted chemically under high temperature and elevated pressure via partial oxidization reactions to process gas, slag and ash.

Classifications:
International (IPC 8-9): B01F15/02 B01F15/04 B01F15/06 C10J3/30 C10J3/36 C10J3/50
CPC: C10J2200/158 C10J2300/0903 C10J3/30
US: 366/149 366/149P 366/151.1 366/151.100S 366/162.1 366/162.100S 366/182.3 366/182.300S



Family:

Publication number	Publication date	Application number	Application date
EP2302018 A1	20110330	EP20090012157	20090924
IN02891DN2012 A	20160831	IN2012DN02891	20120404
US2012182827 AA	20120719	US20100261207	20100909
WO11037606 A2	20110331	WO2010US02482	20100909
WO11037606 A3	20130801	WO2010US02482	20100909

Priority:
EP20090012157 20090924 WO2010US02482 20100909

Probable Assignee: BAIRAMIJAMAL FARAMARZ
Assignee(s): (std): BAIRAMIJAMAL FARAMARZ
Inventor(s): (std): BAIRAMIJAMAL FARAMARZ
Agent(s): HERRMANN UWE
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
EP2302018 A1	20110330	LSPB	+	published / reissued	
EP2302018 A1	20110330		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR
EP2302018 A1	20110330		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Country of Ref document: AL BA RS
EP2302018 A1	20110420	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20110309
EP2302018 A1	20120502	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 20120330
EP2302018 A1	20150527	LSGT	+INTG	INTENTION TO GRANT ANNOUNCED	Effective date: 20150506
EP2302018 A1	20160309	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	Effective date: 20150917
IN02891DN2012 A	20160831	LSPB	+	published / reissued	
US2012182827 AA	20120719	LSPB	+	published / reissued	
US2012182827 AA	20150709	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	

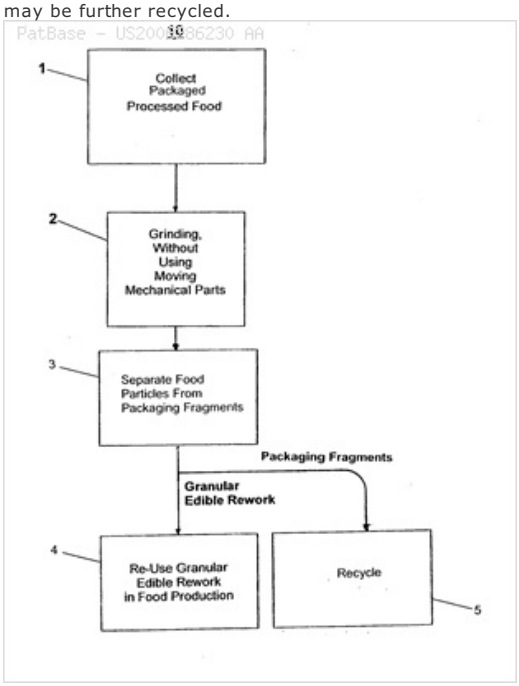
US2012182827 AA	20150709		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
WO11037606 A2	20110331	LSPB	+	published / reissued	
WO11037606 A2	20110518		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Ref document number: 10819140 Kind code of Ref document: A1 Country of Ref document: EP
WO11037606 A2	20120308	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 13261207 Country of Ref document: US
WO11037606 A2	20120326	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO11037606 A2	20120404	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2891/DELNP/2012 Country of Ref document: IN
WO11037606 A2	20121017	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	Kind code of Ref document: A2 Ref document number: 10819140 Country of Ref document: EP

95) Family number: 34021659 (US2006286230 AA)

Title: PROCESS FOR PACKING SEPARATION AND GRANULATION OF PROCESSED FOOD CONTENT THEREOF, AND PRODUCTS AND USES THEREOF

Abstract: A process for grinding packaged processed food and simultaneously separating its packaging in a single unit operation in a continuous, short-duration manner. Grinding may be effected without the need for moving mechanical parts. The granulated food product obtained from the grinding treatment of the packaged processed food is functionally suitable for re-use in food production lines and the packaging material fragments may be further recycled.

Classifications:
International (IPC 8-9): A23L1/00 A23P1/02 B02C19/06 B09B3/00 B65B25/00 B65B25/06 B65B69/00 B65D5/52
CPC: A21D17/002 A23P10/20 B02C19/061 B09B3/00
US: 426/392



Family:

Publication number	Publication date	Application number	Application date
AT438466 E	20090815	AT20060115321T	20060612
CA2550103 AA	20061215	CA20062550103	20060608
DE602006008219 D1	20090917	DE200660008219T	20060612
EP1733811 A1	20061220	EP20060115321	20060612
EP1733811 B1	20090805	EP20060115321	20060612
EP1733811 B8	20091104	EP20060115321	20060612
IL176205 A0	20061005	IL20060176205	20060608
NO20062804 A	20061218	NO20060002804	20060614
NO20062804 L	20061218	NO20060002804	20060614
OA13339 A	20070413	OA20061000196	20060613
RU2006121171 A	20071227	RU20060121171	20060614
US2006286230 AA	20061221	US20050152385	20050615

Priority:

US20050152385 20050615 CA20062550103 20060608

Probable Assignee: KRAFT FOODS GLOBAL BRANDS LLC

Assignee(s): (std): KRAFT FOODS GLOBAL BRANDS LLC ; KRAFT FOODS GLOBAL INC ; KRAFT FOODS HOLDINGS INC

Assignee(s): BROWN MACK W ; INTERCONTINENTAL GREAT BRANDS LLC ; JANULIS THEODORE N ; NEALE KRISTEN G ; POULOS PETER G ; SHAH MANOJ

Inventor(s): (std): BROWN MACK W ; JANULIS THEODORE N ; NEALE KRISTEN G ; NEALE KRISTIN G ; POULOS PETER G ; SHAH MANOJ

Inventor(s): BROWN MACK ; JANULIS THEODORE ; KRISTIN G NEALE ; MACK W BROWN ; MANOJ SHAH ; NEALE KRISTIN ; PETER G POULOS ; POULOS PETER ; THEODORE N JANULIS

Agent(s): FITCH EVEN TABIN AND FLANNERY; MCFADDEN FINCHAM; OSLER HOSKIN AND HARCOURT LLP; SMAGGASGALE GILLIAN HELEN

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR YU

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT438466 E	20090815	LSGT	+	granted / extensions (spc, cpc, pte)	
AT438466 E	20100215	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AT438466 E	20260612	PEXP		Calculated Patent Term Expiry	

CA2550103 AA	20061215	LSPB	+	published / reissued	
CA2550103 AA	20120608	LSLE	-FZDE	DEAD	
DE602006008219 D1	20090709	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	OldParty: Kraft Foods Holdings, Inc., Northfield, Ill., US PartyType: Owner Owner: Kraft Foods Global, Inc., Northfield, Ill., US
DE602006008219 D1	20090923	LSAS	R081	CHANGE OF APPLICANT/PATENTEE	Owner: Kraft Foods Global Brands LLC, 60093 Northfield, Ill., US OldParty: Kraft Foods Global, Inc., Northfield, Ill., US PartyType: Owner
DE602006008219 D1	20091203	LSAS	8327	CHANGE IN THE PERSON/NAME/ADDRESS OF THE PATENT OWNER	Owner: KRAFT FOODS GLOBAL BRANDS LLC, NORTHFIELD, ILL, US PartyType: owner
DE602006008219 D1	20100826	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE602006008219 D1	20110421	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
EP1733811 A1	20061220	LSPB	+	published / reissued	
EP1733811 A1	20061220		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR
EP1733811 A1	20061220		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Country of Ref document: AL BA HR MK YU
EP1733811 A1	20070801	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20070618
EP1733811 A1	20070822	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 20070724
EP1733811 A1	20070829	LSFE	+AKX	DESIGNATION FEES PAID	Country of Ref document: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR
EP1733811 A1	20070829	LSFE	+AXX	EXTENSION FEES PAID	Payment date: 20070618 Country of Ref document: HR
EP1733811 A1	20090729	LSAS	RAP1	RIGHTS OF AN APPLICATION TRANSFERRED	Owner: KRAFT FOODS GLOBAL, INC. PartyType: owner
EP1733811 B1	20090805	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1733811 B1	20090805		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: B1 Country of Ref document: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR
EP1733811 B1	20090805		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Country of Ref document: HR
EP1733811 B1	20090805	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: FG4D Ref country code: GB
EP1733811 B1	20090814	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: EP Ref country code: CH
EP1733811 B1	20090902	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref country code: IE Ref legal event code: FG4D
EP1733811 B1	20090917		REF	CORRESPONDS TO:	Ref document number: 602006008219 Date of Ref document: 20090917 Kind code of Ref document: P Country of Ref document: DE
EP1733811 B1	20090923	LSAS	RAP2	RIGHTS OF A PATENT TRANSFERRED	PartyType: owner Owner: KRAFT FOODS GLOBAL BRANDS LLC
EP1733811 B1	20260612	PEXP		Calculated Patent Term Expiry	
EP1733811 B8	20091104	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1733811 B8	20091201		NLT2	NL: MODIFICATIONS (OF NAMES), TAKEN FROM THE EUROPEAN PATENT PATENT BULLETIN	Owner: KRAFT FOODS GLOBAL BRANDS LLC Effective date: 20090923 PartyType: owner
EP1733811 B8	20100125	LSRV	-LTIE	LT: INVALIDATION OF EUROPEAN PATENT OR PATENT EXTENSION	Effective date: 20090805 Ref country code: EP
EP1733811 B8	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20090805 Country of Ref document: AT
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				POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: ES
EP1733811 B8	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090805 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: FI
EP1733811 B8	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20091205 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: IS
EP1733811 B8	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20090805 Country of Ref document: LT
EP1733811 B8	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20090805 Country of Ref document: SE
EP1733811 B8	20100201	LSLE	-NLV1	NL: LAPSED OR ANNULLED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT	Ref country code: EP
EP1733811 B8	20100226	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090805 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: SI
EP1733811 B8	20100226	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20090805 Country of Ref document: PL
EP1733811 B8	20100226	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090805 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: NL
EP1733811 B8	20100226	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20090805 Country of Ref document: LV
EP1733811 B8	20100331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20091205 Country of Ref document: PT
EP1733811 B8	20100331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20091105 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: BG
EP1733811 B8	20100430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090805 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: CZ
EP1733811 B8	20100430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20090805 Country of Ref document: DK
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EP1733811 B8	20100430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090805 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: RO
EP1733811 B8	20100531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20090805 Country of Ref document: SK
EP1733811 B8	20100630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090805 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: BE
EP1733811 B8	20100714	LSGT	+26N	NO OPPOSITION FILED	Effective date: 20100507
EP1733811 B8	20101029	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20091106 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: GR
EP1733811 B8	20110131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20100630 Country of Ref document: MC
EP1733811 B8	20110131	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: PL Ref country code: CH
EP1733811 B8	20110223	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	Effective date: 20100612 Ref country code: EP
EP1733811 B8	20110318	LSLE	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20110228 Ref legal event code: ST Ref country code: FR
EP1733811 B8	20110331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20090805 Country of Ref document: IT
EP1733811 B8	20110429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20100630 Country of Ref document: LI
EP1733811 B8	20110429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20100612 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: IE
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EP1733811 B8	20110429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20110101 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: DE
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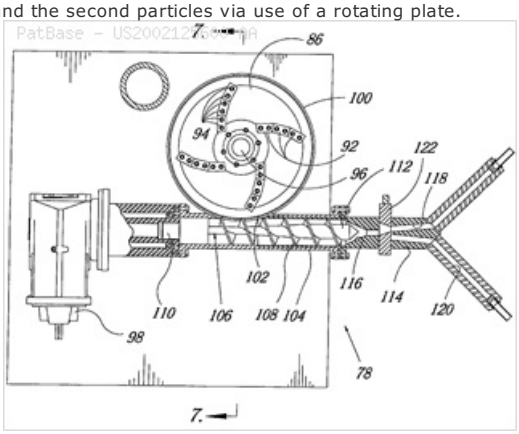
EP1733811 B8	20110729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20100612 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: GB
EP1733811 B8	20120831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20090805 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: CY
EP1733811 B8	20120928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20100612 Country of Ref document: LU
EP1733811 B8	20120928	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20100206 Country of Ref document: HU
EP1733811 B8	20121031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20090805 Country of Ref document: TR
NO20062804 A	20061218	LSPB	+	published / reissued	
NO20062804 A	20110704	LSRV	-FC2A	WITHDRAWAL, REJECTION OR DISMISSAL OF LAID OPEN PATENT APPLICATION	
OA13339 A	20070413	LSGT	+	granted / extensions (spc, cpc, pte)	
OA13339 A	20260613	PEXP		Calculated Patent Term Expiry	
RU2006121171 A	20071227	LSPB	+	published / reissued	
RU2006121171 A	20110420	LSWD	-FA94	ACKNOWLEDGEMENT OF APPLICATION WITHDRAWN (NON-PAYMENT OF FEES)	Effective date: 20110207
US2006286230 AA	20050829	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:SHAH, MANOJ;NEALE, KRISTIN G.;JANULIS, THEODORE N.;AND OTHERS;REEL/FRAME:016921/0277;SIGNING DATES FROM 20050805 TO 20050810 PartyType: owner Owner: KRAFT FOODS HOLDINGS, INC., ILLINOIS
US2006286230 AA	20061221	LSPB	+	published / reissued	
US2006286230 AA	20091105	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2006286230 AA	20091105		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2006286230 AA	20091116	LSAS	AS	ASSIGNMENT	PartyType: owner OldParty: MERGER;ASSIGNOR:KRAFT FOODS HOLDINGS, INC.;REEL/FRAME:023519/0396 Owner: KRAFT FOODS GLOBAL BRANDS LLC, ILLINOIS Effective date: 20080801
US2006286230 AA	20091116	LSAS	AS	ASSIGNMENT	OldParty: MERGER;ASSIGNOR:KRAFT FOODS HOLDINGS, INC.;REEL/FRAME:023519/0396 PartyType: owner Owner: KRAFT FOODS GLOBAL BRANDS LLC,ILLINOIS Effective date: 20080801

96) Family number: 23324195 (US2002125600 AA)

Title: PLASTIC RECYCLING SYSTEM AND PROCESS

Abstract: The present invention provides a plastic recycling system, including a first granulator for reducing plastic waste to a first particle size. The system also includes a second granulator for reducing plastic waste to a second particle size. A frictional melting structure is provided which melts the first particles and the second particles via use of a rotating plate.

Classifications:
International (IPC 8-9): B02C18/06 B02C18/14 B29B17/00 B29B17/04 B29C47/00 B29C47/36 B29C47/38 B29C47/52 B29C48/395
International (IPC 1-7): B02C18/10 B02C18/44 B02C19/12 B29B13/02 B29B17/00 B29B9/02 B29C47/00 B29C47/36 B29C47/52 B29C69/00
CPC: B02C18/144 B02C18/148 B29B17/0036 B29B17/0412 B29B2017/0021 B29B2017/046 B29B2017/048 B29C2793/009 B29C48/00 B29C48/0022 B29C48/03 B29C48/04 B29C48/395 B29C48/53 Y02W30/62 B29C47/00 B29C47/0009 B29C47/0011 B29C47/0066 B29C47/38 B29C47/52 B29C47/6018 Y02W30/625
US: 241/23 241/23P 241/65 241/65S 264/14 264/140 264/140S 264/176.1 264/176.100S 264/68 264/68P 264/92 264/920 264/920S 425/222 425/222S



Family:

Publication number	Publication date	Application number	Application date
AU200213657 A1	20020515	AU20020013657	20011031
AU200213657 A5	20020515	AU20020013657	20011031
AU2002213657 AA	20020515	AU20020213657	20011031
US2002125600 AA	20020912	US20010999734	20011024
US2005051646 AA	20050310	US20040769439	20040130
WO0236318 A1	20020510	WO2001AU01404	20011031

Priority:

US20000244649P 20001031 US20010999734 20011024 WO2001AU01404 20011031 US20040769439 20040130

Probable Assignee: COLLEX PTY LTD

Assignee(s): (std): COLLEX PTY LTD ; HORNE DAVID ; OMNIPOL PROPRIETARY LTD

Assignee(s): OMNIPOL PROPRIETARY LIMITED

Inventor(s): (std): HORNE DAVID

Inventor(s): DAVID HORNE

Agent(s): AKERMAN SENTERFITT

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AU200213657 A1	20020515	LSPB	+	published / reissued	
AU2002213657 AA	20020515	LSPB	+	published / reissued	
US2002125600 AA	20020201	LSAS	AS	ASSIGNMENT	OldParty: EMPLOYMENT AGREEMENT - AGREEMENT TO ASSIGN;ASSIGNOR:HORNE, DAVID;REEL/FRAME:012544/0387 PartyType: owner Effective date: 19990601 Owner: OMNIPOL PROPRIETARY LIMITED, AUSTRALIA
US2002125600 AA	20020912	LSPB	+	published / reissued	
US2002125600 AA	20040513	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2002125600 AA	20040513		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
US2005051646 AA	20040130	LSAS	AS	ASSIGNMENT	Owner: COLLEX PTY LTD, AUSTRALIA PartyType: owner Effective date: 20030317 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:OMNIPOL

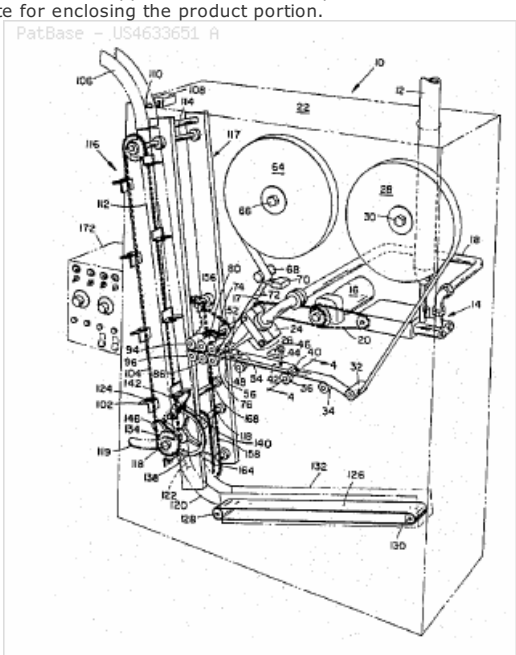
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US2005051646 AA	20050310	LSPB	+	published / reissued	
US2005051646 AA	20060509	LSWD	ABD3	Abandoned -- Failure to Respond to an Office Action	
US2005051646 AA	20060509		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: ABANDONED -- FAILURE TO RESPOND TO AN OFFICE ACTION
WO0236318 A1	20020510	LSPB	+	published / reissued	
WO0236318 A1	20021010		DFPE	REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH MONTH FROM PRIORITY DATE (PCT APPLICATION FILED BEFORE 20040101)	
WO0236318 A1	20021030		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	
WO0236318 A1	20030911	LSWD	REG	REFERENCE TO NATIONAL CODE	Ref legal event code: 8642 Ref country code: DE
WO0236318 A1	20031105		-32PN	EP: PUBLIC NOTIFICATION IN THE EP BULLETIN AS ADDRESS OF THE ADRESSEE CANNOT BE ESTABLISHED	Text: NOTHING OF LOSS OF RIGHTS PURSUANT TO RULE 69(1) EPC (EPO FORM 1205A DATED 13.08.2003)
WO0236318 A1	20040506	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	Ref country code: WO
WO0236318 A1	20050914	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: JP

97) Family number: 5182077 (US4633651 A)

Title: Apparatus and method for **extruding** and packaging portions of **extrudable**, form retaining products

Abstract: The present invention relates to an apparatus for packaging portions of an **extrudable** product, such as butter or margarine. The entire apparatus is driven by a single motor with all operations being synchronized therewith. The pliable product is pumped through an **extruder**, cut into portions, and deposited on one layer of channeled substrate and covered with another layer of substrate, which has an adhesive applied thereto. The substrates are then drawn between **compression** rollers and cut between the product portions and the product portions automatically fed to trays. As each tray is filled, a rapid advance moves the tray forward a predetermined amount so that the product portions will continue to **feed** into the next tray. As the trays move forward, they are removed from the entire apparatus for either shipment and/or storage. The adhesive holds the upper substrate to the lower substrate for enclosing the product portion.

Classifications:
International (IPC 8-9): B65B25/00 B65B25/06 B65B5/10
International (IPC 1-7): B65B63/00
CPC: B65B25/06 B65B5/10
US: 426/130 426/413 53/435 53/453 53/456 53/475 53/519 53/534 53/559



Family:

Publication number	Publication date	Application number	Application date
US4633651 A	19870106	US19850705905	19850226

Priority:
US19850705905 19850226

Probable Assignee: EDMUNDS RAYMOND S
Assignee(s): (std): EDMUNDS RAYMOND S
Assignee(s): KIRBY STATE BANK ; KIRBY STATE BANK PO BOX
Inventor(s): (std): EDMUNDS RAYMOND S

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
US4633651 A	19861104	LSGT	PAT1	Patented Case	
US4633651 A	19870106	LSGT	+	granted / extensions (spc, cpc, pte)	
US4633651 A	19870515	LSAS	AS	ASSIGNMENT	Effective date: 19870813 PartyType: owner OldParty: SECURITY INTEREST;ASSIGNOR:EDMUNDS, RAYMOND S.;REEL/FRAME:004710/0748 Owner: KIRBY STATE BANK, P.O. BOX 34330 BEXAR COUNTY, SAN
US4633651 A	19900814		REMI	MAINTENANCE FEE REMINDER MAILED	
US4633651 A	19910107	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 4
US4633651 A	19910107		+SULP	SURCHARGE FOR LATE PAYMENT	
US4633651 A	19940627	LSFE	+FPAY	FEE PAYMENT	Year of fee payment: 8
US4633651 A	19980728		REMI	MAINTENANCE FEE REMINDER MAILED	
US4633651 A	19990103	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US4633651 A	19990316	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE	Effective date: 19990106

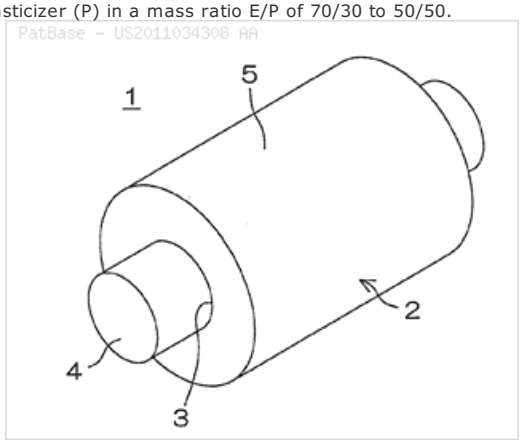
				FEE	
US4633651 A	20180131	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US4633651 A	20180131	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362

98) Family number: 48278146 (US2011034308 AA)

Title: PAPER FEED ROLLER

Abstract: The paper feed roller according to the present invention is made of a thermoplastic elastomer composition containing an ester thermoplastic elastomer urethane or an ether thermoplastic elastomer urethane (E) having microrubber hardness (type A) of not less than 60 and not more than 80 and a plasticizer (P) in a mass ratio E/P of 70/30 to 50/50.

Classifications:
International (IPC 8-9): B41J13/076 B65H27/00 B65H5/06 C08G18/40 C08K5/103 C08K5/11 C08K5/12 C08K5/521 C08L71/02 C08L75/04 F16C13/00
CPC: B65H2401/111 B65H2515/81 B65H27/00 B65H5/06 C08L23/16 F16C13/00 G03G2215/00683
US: 492/48 492/53 492/56 492/59 492/59P



Family:

Publication number	Publication date	Application number	Application date
CN101992968 A	20110330	CN201010217874	20100622
CN101992968 B	20150527	CN201010217874	20100622
JP2011037563 A2	20110224	JP20090185746	20090810
JP5302819 B2	20131002	JP20090185746	20090810
US2011034308 AA	20110210	US20100841419	20100722
US8986182 BB	20150324	US20100841419	20100722

Priority:
JP20090185746 20090810

Probable Assignee: SUMITOMO RUBBER IND LTD

Assignee(s): (std): MINE AKIHIRO ; NISHIMORI HIROKAZU ; OKUYAMA HIDEYUKI ; SUMITOMO RUBBER IND ; TAMURA TOSHIHIRO

Assignee(s): SUMITOMO RUBBER IND LTD ; SUMITOMO RUBBER INDUSTRIES LTD

Inventor(s): (std): AKIHIRO MINE ; HIDEYUKI OKUYAMA ; HIROKAZU NISHIMORI ; MINE AKIHIRO ; NISHIMORI HIROKAZU ; NISHIMORI KOICHI ; OKUYAMA HIDEYUKI ; TAMURA TOSHIHIRO ; TOSHIHIRO TAMURA

Agent(s): BIRCH STEWART KOLASCH AND BIRCH; BIRCH STEWART KOLASCH AND BIRCH LLP

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CN101992968 A	20110330	LSPB	+	published / reissued	
CN101992968 A	20110330	LSPB	+C06	PUBLICATION	
CN101992968 A	20121003		C10	ENTRY INTO SUBSTANTIVE EXAMINATION	
CN101992968 B	20150527	LSGT	+	granted / extensions (spc, cpc, pte)	
CN101992968 B	20150527	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN101992968 B	20300622	PEXP		Calculated Patent Term Expiry	
JP2011037563 A2	20110224	LSPB	+	published / reissued	
JP2011037563 A2	20111029	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	Effective date: 20111028 Text: JAPANESE INTERMEDIATE CODE: A621
JP2011037563 A2	20121219		A977	REPORT ON RETRIEVAL	Effective date: 20121219 Text: JAPANESE INTERMEDIATE CODE: A971007
JP2011037563 A2	20130111	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Effective date: 20130110 Text: JAPANESE INTERMEDIATE CODE: A131
JP2011037563 A2	20130306	LSRE	A521	WRITTEN	Effective date: 20130305

				AMENDMENT	Text: JAPANESE INTERMEDIATE CODE: A523
JP2011037563 A2	20130610	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2011037563 A2	20130614	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	Effective date: 20130613 Text: JAPANESE INTERMEDIATE CODE: A01
JP2011037563 A2	20130627	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	Effective date: 20130621 Text: JAPANESE INTERMEDIATE CODE: A61
JP2011037563 A2	20130628	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	Text: JAPANESE INTERMEDIATE CODE: R150
JP2011037563 A2	20130628	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	Ref document number: 5302819 Text: JAPANESE INTERMEDIATE CODE: R150 Country of Ref document: JP
JP5302819 B2	20130620	LSGT	+A01	特許査定書	
JP5302819 B2	20130620	LSGT	+A01	特許査定書	Effective date: 20130613
JP5302819 B2	20130625	LSFE	R100	特許料納付書	
JP5302819 B2	20130625	LSFE	R100	特許料納付書	Effective date: 20130621 Text: 51301304034
JP5302819 B2	20130628	LSGT	+R150	特許証	
JP5302819 B2	20130628	LSGT	+R150	特許証	Effective date: 20130709
JP5302819 B2	20131002	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5302819 B2	20160512	LSFE	R20	特許料納付書	
JP5302819 B2	20160512	LSFE	R20	特許料納付書	Effective date: 20160511 Text: 51600986603
JP5302819 B2	20160524	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
JP5302819 B2	20160524	LSFE	+R250	年金領収書, 年金領収書 (分納)	
JP5302819 B2	20160524	LSFE	+R250	年金領収書, 年金領収書 (分納)	Effective date: 20160531
JP5302819 B2	20170518	LSFE	R20	特許料納付書	
JP5302819 B2	20170518	LSFE	R20	特許料納付書	Effective date: 20170511 Text: 51701009765
JP5302819 B2	20170523	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
JP5302819 B2	20170523	LSFE	+R250	年金領収書, 年金領収書 (分納)	
JP5302819 B2	20170523	LSFE	+R250	年金領収書, 年金領収書 (分納)	Effective date: 20170530
JP5302819 B2	20180517	LSFE	R20	特許料納付書	
JP5302819 B2	20180517	LSFE	R20	特許料納付書	Effective date: 20180510 Text: 51800966461
JP5302819 B2	20180522	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
JP5302819 B2	20180522	LSFE	+R250	年金領収書, 年金領収書 (分納)	
JP5302819 B2	20180522	LSFE	+R250	年金領収書, 年金領収書 (分納)	Effective date: 20180529
JP5302819 B2	20190516	LSFE	R20	特許料納付書	
JP5302819 B2	20190516	LSFE	R20	特許料納付書	Effective date: 20190510 Text: 51900990526
JP5302819 B2	20190521	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
JP5302819 B2	20190521	LSFE	+R250	年金領収書, 年金領収書 (分納)	
JP5302819 B2	20190521	LSFE	+R250	年金領収書, 年金領収書 (分納)	Effective date: 20190531

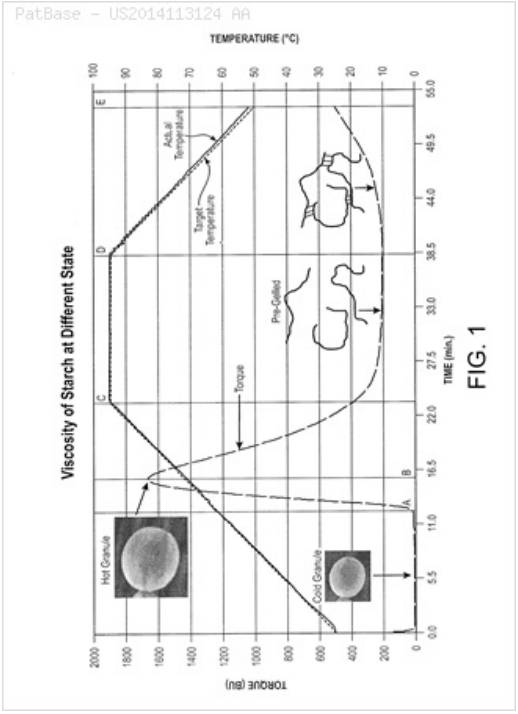
JP5302819 B2	20200513	LSFE	R20	特許料納付書	Effective date: 20200512 Text: 52000980162
JP5302819 B2	20200514	LSFE	+R250	RECEIPT OF ANNUAL FEES	Text: JAPANESE INTERMEDIATE CODE: R250
JP5302819 B2	20200514	LSFE	+R250	年金領収書, 年金領収書 (分納)	Effective date: 20200529
JP5302819 B2	20290810	PEXP		Calculated Patent Term Expiry	
US2011034308 AA	20110210	LSPB	+	published / reissued	
US2011034308 AA	20150304	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US8986182 BB	20100723	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:TAMURA, TOSHIHIRO;MINE, AKIHIRO;NISHIMORI, HIROKAZU;AND OTHERS;SIGNING DATES FROM 20100518 TO 20100519;REEL/FRAME:024731/0992 Owner: SUMITOMO RUBBER INDUSTRIES, LTD., JAPAN PartyType: owner
US8986182 BB	20150304	LSGT	PAT1	Patented Case	
US8986182 BB	20150324	LSGT	+	granted / extensions (spc, cpc, pte)	
US8986182 BB	20180913	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	Year of fee payment: 4
US8986182 BB	20311026	PEXP		Calculated Patent Term Expiry (PTA 461 days)	

99) Family number: 56296193 (US2014113124 AA)

Title: PREGELATINIZED STARCH WITH MID-RANGE VISCOSITY, AND PRODUCT, SLURRY AND METHODS RELATED THERETO

Abstract: Disclosed are product (e.g., panels), slurry, and methods relating to a pregelatinized starch having a mid-range viscosity (i.e., from about 20 centipoise to about 700 centipoise).

Classifications:
International (IPC 8-9): B01J13/00 B01J19/18 B28B1/16 B32B13/00 B32B37/15 B32B9/02 C01B15/01 C04B C04B103/10 C04B103/20 C04B103/32 C04B11/00 C04B111/00 C04B111/20 C04B22/16 C04B24/00 C04B24/10 C04B24/22 C04B24/28 C04B24/38 C04B24/383 C04B28/00 C04B28/04 C04B28/14 C04B28/16 C04B38/10 C04B40/00 C07K16/28 C08B C08B30/12 C08B30/14 C08B30/18 C08B31/00 C08B31/06 C08B31/10 C08B31/18 C08D30/14 C08L3/02 C08L3/08 C09D5/34 C09J103/02 C09J103/08 C13K1/06 E04B1/86 E04C2/04 E04C2/26
CPC: B28B1/16 C04B2111/0062 C04B2111/00672 C04B24/38 C04B28/14 C08B30/14 C08L3/02 C08L3/08 C09J103/02 C09J103/08 E04C2/043 Y02W30/91 Y10T428/253 Y10T428/31971 C04B2103/10 C04B2103/20 C04B24/283 C04B28/16 C04B38/106 C08B30/12 C08B30/18 C04B24/383 Y02W30/97 B32B13/00 C04B2103/32 C04B2111/20 C04B40/00 B32B27/08 C04B2103/40 C04B22/16 C04B24/42 C04B14/28 C04B18/24 E04C2/26
US: 1/1 106/776 106/779 106/804 127/38 127/71 156/348 156/39 252/62 264/138 428/220 428/326 428/532



Family:

Publication number	Publication date	Application number	Application date
AR093072 AA	20150513	AR2013P103798	20131018
AR097880 AA	20160420	AR2014P103654	20141001
AU2013335106 AA	20150521	AU20130335106	20131014
AU2013335106 BB	20180308	AU20130335106	20131014
AU2014329817 AA	20160505	AU20140329817	20140929
AU2014329817 BB	20181129	AU20140329817	20140929
AU2014329817 BI	20190103	AU20140329817	20140929
AU2018203602 AA	20180614	AU20180203602	20180522
AU2018279047 AA	20190117	AU20180279047	20181217
AU2018279047 BB	20200903	AU20180279047	20181217
AU2020200531 AA	20200213	AU20200200531	20200124
AU2020200532 AA	20200213	AU20200200532	20200124
BR112015008774 A2	20170704	BR20151108774	20131014
BR112016007044 A2	20170801	BR20161107044	20140929
CA2887346 AA	20150409	CA20132887346	20131014
CA2925619 AA	20160324	CA20142925619	20140929
CL2015000989 A1	20150904	CL20150000989	20150417
CL2016000722 A1	20161021	CL20160000722	20160329
CN105121475 A	20151202	CN201380064231	20131014
CN105121475 B	20180413	CN201380064231	20131014
CN105722861 A	20160629	CN201480062755	20140929
CN105722861 B	20181102	CN201480062755	20140929
CN106673579 A	20170517	CN201710052339	20131014
CN106673579 B	20200303	CN201710052339	20131014
CN109721661 A	20190507	CN201811128449	20140929
CO16098183 A2	20160909	CO20160098183	20160418
DK2912071 T3	20200727	DK20130783185T	20131014
EP2912071 A2	20150902	EP20130783185	20131014
EP2912071 B1	20200527	EP20130783185	20131014
EP3052527 A1	20160810	EP20140789654	20140929
EP3650471 A1	20200513	EP20190211044	20131014
HR20201112 T1	20201030	HR20200001112	20200715
ID201603852 A	20160610	ID2015P0002723	20131014
ID201709493 A	20170901	ID2016P0002489	20140929
IN03612DN2015 A	20151120	IN2015DN03612	20150428
IN201617012883 A	20160831	IN201617012883	20160412
JP2016500639 T2	20160114	JP20150537757T	20131014
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JP6560196 B2	20190814	JP20160518449T	20140929
JP2018150237 A2	20180927	JP20180099285	20180524
JP6659768 B2	20200304	JP20180099285	20180524

JP2019206710 A2	20191205	JP20190132452	20140929	
KR20150077437 A	20150707	KR20157012060	20131014	
KR20160065869 A	20160609	KR20167009760	20140929	
LT2912071 T	20200910	LT20130783185T	20131014	
MX2015004978 A1	20150717	MX20150004978	20131014	
MX369731 B	20191120	MX20150004978	20131014	
MX2016004060 A1	20160622	MX20160004060	20140929	
MX2019013822 A1	20200115	MX20190013822	20150420	
NZ707559 A	20190329	NZ20130707559	20131014	
NZ747277 A	20200327	NZ20130747277	20131014	
PE10332015 A1	20150819	PE20150000526	20131014	
PE20151033 A1	20150819	PE20150000526	20131014	
PE06672016 A1	20160709	PE20160000418	20140929	
PE20160667 A1	20160709	PE20160000418	20140929	
PE20200087 A1	20200115	PE20190002467	20131014	
PL2912071 T3	20201116	PL20130783185T	20131014	
PT2912071 T	20200727	PT20130783185T	20131014	
RU2015117913 A	20161210	RU20150117913	20131014	
RU2641350 C2	20180117	RU20150117913	20131014	
RU2016114846 A	20171023	RU20160114846	20140929	
RU2016114846 A3	20180510	RU20160114846	20140929	
RU2671467 C2	20181031	RU20160114846	20140929	
RU2018137709 A	20190322	RU20180137709	20140929	
TH167533 A	20170907	TH20151002178	20131014	
TH159395 A	20170118	TH20161001804	20140929	
TW201416225 A	20140501	TW20130137827	20131018	
TWI623418 B	20180511	TW20130137827	20131018	
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UA118570 C2	20190211	UA20160004338	20140929	
US2014113128 AA	20140424	US20130044582	20131002	
US9540810 BB	20170110	US20130044582	20131002	
US10399899 BB	20190903	US20130835002	20130315	
US2014113124 AA	20140424	US20130835002	20130315	
US2015010767 AA	20150108	US20140494547	20140923	
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US2018037671 AA	20180208	US20170787264	20171018	
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Priority:

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WO2013US64776	20131014	AU20130335106	20131014	CN201380064231	20131014
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AU20200200531	20200124	AU20200200532	20200124		

Probable Assignee: UNITED STATES GYPSUM CO

Assignee(s): (std): UNITED STATES GYPSUM CO ; USG CORP ; YUNAJTED STEJTS DZHIPSEM KOMPANI ; YUNAJTED STEJTS DZHIPSUM KOMPANI

Assignee(s): CHAN CESAR ; LEE CHRIS C ; SANG YIJUN ; SONG WEIXIN D ; US GYPSUM CO

Inventor(s): (std): CESAR CHAN ; CHAN CESAR ; CHAN SIZAR ; CHEN C ; CHRIS C LEE ; CHRIS LEE ; LEE CHRIS ; LEE CHRIS C ; LI C C ; LI KRIS S ; SAN ITSZYUN ; SANG Y ; SANG YI JUN ; SONG W D ; SONG WEIXIN D ; SONG WEIXIN DAVID ; SUN VEJSIN D ; WEISING SONG ; WEIXIN D SONG ; WEIXIN DAVID SONG ; YIJUN SANG

Agent(s): BSB INTELLECTUAL PROPERTY LAW; BSB PATENTANWAELTE SCHUETTE AND ENGELEN PARTNERSCHAFT MBB; BUDI RAHMAT; BUDI RAHMAT SH; DANILO ROMERO RAAD; GREER BURNS AND CRAIN LTD; HASAN SALIM ET AL; JAMES AND WELLS INTELLECTUAL PROPERTY; JOHANSSON AND LANGLOIS LTDA; LEYDIG VOIT AND MAYER LTD; MADDERNS PATENT AND TRADE MARK ATTORNEYS; MOFFAT AND CO; PETTI PHILIP T; PHILIP T; PRADIP K; RYBINA N A; RYBINOJ NA; SAHU PRADIP; SAHU PRADIP K

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

View legal status timeline

Patent	Date recorded	Event group	Code	Event	Details
AR093072 AA	20150513	LSPB	+	published /	

				reissued	
AR093072 AA	20200214	LSGT	+FG	GRANT, REGISTRATION	
AR097880 AA	20160420	LSPB	+	published / reissued	
AR097880 AA	20191216	LSGT	+FG	GRANT, REGISTRATION	
AU2013335106 AA	20150521	LSPB	+	published / reissued	
AU2013335106 BB	20180308	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2013335106 BB	20180621	LSOP	-CB	OPPOSITION LODGED BY	Opponent: CSR BUILDING PRODUCTS LIMITED PartyType: opponent
AU2013335106 BB	20190404	LSOP	ON	DECISION OF A DELEGATE OR DEPUTY OF THE COMMISSIONER OF PATENTS (RESULT OF PATENT OFFICE HEARING)	Effective date: 20190329 OldParty: (2019) APO 15: DECISION: THE OPPONENT HAS MET THE REQUIREMENTS OF PARAGRAPH 5.9(2)(A) OF THE PATENT REGULATIONS 1991 (CTH) (PATENT REGULATIONS). I GRANT AN EXTENSION OF TIME FOR FILING EVIDENCE IN SUPPORT UNTIL 21 DECEMBER 2018. FOR THE PURPOSES OF SUBREGULATION 5.8(2), THIS DECISION REPRESENTS NOTICE THAT ALL OF THE EVIDENCE IN SUPPORT HAS BEEN FILED. THE TIME FOR FILING EVIDENCE IN ANSWER IS 3 MONTHS FROM THE DATE OF THIS DECISION. I AWARD COSTS ACCORDING TO SCHEDULE 8 AGAINST UNITED STATES GYPSUM COMPANY. Opponent: CSR BUILDING PRODUCTS LIMITED PartyType: opponent
AU2013335106 BB	20200604	LSGT	+CH	OPPOSITION WITHDRAWN	Opponent: CSR BUILDING PRODUCTS LIMITED PartyType: opponent
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AU2014329817 AA	20160505	LSPB	+	published / reissued	
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				DOCUMENTS AND/OR TRANSLATIONS NEEDED AFTER AN EXAMINATION REQUEST ACCORDING ART. 34 INDUSTRIAL PROPERTY LAW	
BR112015008774 A2	20180313		B06F	OBJECTIONS, DOCUMENTS AND/OR TRANSLATIONS NEEDED AFTER AN EXAMINATION REQUEST ACCORDING ART. 34 INDUSTRIAL PROPERTY LAW	
BR112015008774 A2	20180320		B06I	TECHNICAL AND FORMAL REQUIREMENTS: PUBLICATION CANCELLED	
BR112015008774 A2	20180320		B06I	TECHNICAL AND FORMAL REQUIREMENTS: PUBLICATION CANCELLED	Text: ANULADA A PUBLICACAO CODIGO 6.6.1 NA RPI NO 2462 DE 13/03/2018 POR TER SIDO INDEVIDA.
BR112015008774 A2	20200526		B06U	PRELIMINARY REQUIREMENT: REQUESTS WITH SEARCHES PERFORMED BY OTHER PATENT OFFICES: SUSPENSION OF THE PATENT APPLICATION PROCEDURE	
BR112016007044 A2	20170801	LSPB	+	published / reissued	
BR112016007044 A2	20180227		B06F	OBJECTIONS, DOCUMENTS AND/OR TRANSLATIONS NEEDED AFTER AN EXAMINATION REQUEST ACCORDING ART. 34 INDUSTRIAL PROPERTY LAW	
BR112016007044 A2	20200128		B06U	PRELIMINARY REQUIREMENT: REQUESTS WITH SEARCHES PERFORMED BY OTHER PATENT OFFICES: SUSPENSION OF THE PATENT APPLICATION PROCEDURE	
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CA2925619 AA	20191009	LSES	+EEER	EXAMINATION REQUEST	Effective date: 20190923
CL2015000989 A1	20150904	LSPB	+	published / reissued	
CL2016000722 A1	20161021	LSPB	+	published / reissued	
CN105121475 A	20151202	LSPB	+	published / reissued	
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CN105121475 B	20331014	PEXP		Calculated Patent Term Expiry	
CN105722861 A	20160629	LSPB	+	published /	

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CN105722861 A	20161116		C10	ENTRY INTO SUBSTANTIVE EXAMINATION	
CN105722861 B	20181102	LSGT	+	granted / extensions (spc, cpc, pte)	
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CN106673579 A	20170517	LSPB	+	published / reissued	
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CN106673579 A	20170517	LSPB	PB01	公开 (The publication of application)	Text: 公开 (Disclosure)
CN106673579 A	20170609		SE01	ENTRY INTO FORCE OF REQUEST FOR SUBSTANTIVE EXAMINATION	
CN106673579 A	20170609		SE01	实质审查请求的生效 (The entry into substantive examination)	Text: 实质审查的生效 (Force of substantive review)
CN106673579 B	20200303	LSGT	+	granted / extensions (spc, cpc, pte)	
CN106673579 B	20200303	LSGT	+GR01	PATENT GRANT	
CN106673579 B	20200303	LSGT	+GR01	授权 (The grant of patent right)	Text: 授权 (Authorization)
CN106673579 B	20331014	PEXP		Calculated Patent Term Expiry	
CN109721661 A	20190507	LSPB	+	published / reissued	
CN109721661 A	20190507	LSPB	PB01	PUBLICATION	
CN109721661 A	20190507	LSPB	PB01	公开 (The publication of application)	Text: 公开 (Disclosure)
CN109721661 A	20190531		SE01	ENTRY INTO FORCE OF REQUEST FOR SUBSTANTIVE EXAMINATION	
CN109721661 A	20190531		SE01	实质审查请求的生效 (The entry into substantive examination)	Text: 实质审查的生效 (Force of substantive review)
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EP2912071 A2	20150902		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A2 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP2912071 A2	20150902		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Country of Ref document: BA ME
EP2912071 A2	20151111	LSES	R17D	DEFERRED SEARCH REPORT PUBLISHED (CORRECTED)	Effective date: 20151008
EP2912071 A2	20160914		DAX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT (DELETED)	
EP2912071 A2	20190327	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 20190225
EP2912071 A2	20191129		REG	REFERENCE TO A NATIONAL CODE	ClassificationScheme: IPC ClassificationSymbol:

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EP2912071 A2	20191219		+GRAP	DESPATCH OF COMMUNICATION OF INTENTION TO GRANT A PATENT	Text: ORIGINAL CODE: EPIDOSNIGR1
EP2912071 A2	20200108		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: E04C 2/04 20060101ALI20191129BHEP
EP2912071 A2	20200108		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: C08B 30/14 20060101ALI20191129BHEP
EP2912071 A2	20200108		RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: C04B 28/14 20060101AFI20191129BHEP
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EP2912071 B1	20200527	LSGT	REG	REFERENCE TO A NATIONAL CODE	Ref country code: GB Ref legal event code: FG4D
EP2912071 B1	20200529	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: EP
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EP2912071 B1	20200727		REG	REFERENCE TO A NATIONAL CODE	Effective date: 20200722 Ref country code: DK Ref legal event code: T3
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EP2912071 B1	20200902		REG	REFERENCE TO A NATIONAL CODE	Ref country code: NL Ref legal event code: FP
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EP2912071 B1	20201016		REG	REFERENCE TO A NATIONAL CODE	Payment date: 20200922 Ref country code: HR Ref document number: P20201112T Ref legal event code: ODRP Year of fee payment: 8

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EP2912071 B1	20201030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20200927 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: IS
EP2912071 B1	20201030	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200924 Year of fee payment: 8 Country of Ref document: TR
EP2912071 B1	20201030	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200923 Year of fee payment: 8 Country of Ref document: PT
EP2912071 B1	20201030	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200924 Year of fee payment: 8 Country of Ref document: CZ
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EP2912071 B1	20201030	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20200922 Year of fee payment: 8 Country of Ref document: RO
EP2912071 B1	20201030		REG	REFERENCE TO A NATIONAL CODE	Ref country code: HR Ref document number: P20201112 Ref legal event code: T1PR Country of Ref document: HR
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EP2912071 B1	20201231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20200527 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: AL
EP2912071 B1	20201231	LSFE	+PGFP	ANNUAL FEE PAID TO NATIONAL OFFICE [ANNOUNCED FROM NATIONAL OFFICE TO EPO]	Payment date: 20201026 Year of fee payment: 8 Country of Ref document: NL
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EP3052527 A1	20160810		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP3052527 A1	20160810		+AX	REQUEST FOR EXTENSION OF THE EUROPEAN PATENT	Country of Ref document: BA ME
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EP3052527 A1	20200325	LSES	+17Q	FIRST EXAMINATION REPORT DESPATCHED	Effective date: 20200221
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EP3650471 A1	20200513		AC	DIVISIONAL APPLICATION: REFERENCE TO EARLIER APPLICATION	Kind code of Ref document: P Ref document number: 2912071 Country of Ref document: EP
EP3650471 A1	20200513		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: A1 Country of Ref document: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
EP3650471 A1	20200812		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: SANG, YIJUN PartyType: inventor
EP3650471 A1	20200812		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: LEE, CHRIS PartyType: inventor
EP3650471 A1	20200812		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: SONG, WEIXIN DAVID PartyType: inventor
EP3650471 A1	20200812		RIN1	INFORMATION ON INVENTOR PROVIDED BEFORE GRANT (CORRECTED)	Inventor: CHAN, CESAR PartyType: inventor
EP3650471 A1	20201223	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20201112
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ID201709493 A	20170901	LSPB	+	published / reissued	
IN03612DN2015 A	20151120	LSPB	+	published / reissued	
IN201617012883 A	20160831	LSPB	+	published / reissued	
JP2016500639 T2	20151104		RD03	NOTIFICATION OF APPOINTMENT OF POWER OF ATTORNEY	Effective date: 20151104 Text: JAPANESE INTERMEDIATE CODE: A7423
JP2016500639 T2	20151126		RD04	NOTIFICATION OF RESIGNATION OF POWER OF ATTORNEY	Text: JAPANESE INTERMEDIATE CODE: A7424 Effective date: 20151126
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JP2016500639 T2	20170621		A977	REPORT ON RETRIEVAL	Text: JAPANESE INTERMEDIATE CODE: A971007 Effective date: 20170621

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JP2016500639 T2	20171010		A601	WRITTEN REQUEST FOR EXTENSION OF TIME	Effective date: 20171010 Text: JAPANESE INTERMEDIATE CODE: A601
JP2016500639 T2	20171211	LSRE	A521	WRITTEN AMENDMENT	Effective date: 20171211 Text: JAPANESE INTERMEDIATE CODE: A523
JP2016500639 T2	20180109	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Text: JAPANESE INTERMEDIATE CODE: A131 Effective date: 20180109
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JP2016500639 T2	20180424	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	Effective date: 20180424 Text: JAPANESE INTERMEDIATE CODE: A01
JP2016500639 T2	20180531	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	Effective date: 20180524 Text: JAPANESE INTERMEDIATE CODE: A61
JP2016500639 T2	20180601	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	Ref document number: 6346186 Text: JAPANESE INTERMEDIATE CODE: R150 Country of Ref document: JP
JP2016535116 T2	20160822		RD04	NOTIFICATION OF RESIGNATION OF POWER OF ATTORNEY	Text: JAPANESE INTERMEDIATE CODE: A7424 Effective date: 20160822
JP2016535116 T2	20161110	LSPB	+	published / reissued	
JP2016535116 T2	20170925	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	Effective date: 20170925 Text: JAPANESE INTERMEDIATE CODE: A621
JP2016535116 T2	20181009	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Effective date: 20181009 Text: JAPANESE INTERMEDIATE CODE: A131
JP2016535116 T2	20190108		A601	WRITTEN REQUEST FOR EXTENSION OF TIME	Effective date: 20190108 Text: JAPANESE INTERMEDIATE CODE: A601
JP2016535116 T2	20190311		A601	WRITTEN REQUEST FOR EXTENSION OF TIME	Text: JAPANESE INTERMEDIATE CODE: A601 Effective date: 20190311
JP2016535116 T2	20190409	LSRE	A524	WRITTEN SUBMISSION OF COPY OF AMENDMENT UNDER SECTION 19 (PCT)	Text: JAPANESE INTERMEDIATE CODE: A524 Effective date: 20190409
JP2016535116 T2	20190613	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2016535116 T2	20190618	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	Effective date: 20190618 Text: JAPANESE INTERMEDIATE CODE: A01
JP2016535116 T2	20190725	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	Effective date: 20190718 Text: JAPANESE INTERMEDIATE CODE: A61
JP2016535116 T2	20190726	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	Ref document number: 6560196 Text: JAPANESE INTERMEDIATE CODE: R150 Country of Ref document: JP
JP2018150237 A2	20180927	LSPB	+	published / reissued	
JP2018150237 A2	20190524		A977	REPORT ON RETRIEVAL	Effective date: 20190524 Text: JAPANESE INTERMEDIATE CODE: A971007
JP2018150237 A2	20190604	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Effective date: 20190604 Text: JAPANESE INTERMEDIATE CODE: A131
JP2018150237 A2	20190830		A601	WRITTEN REQUEST FOR EXTENSION OF	Effective date: 20190830 Text: JAPANESE INTERMEDIATE CODE:

				TIME	A601
JP2018150237 A2	20191101	LSRE	A521	WRITTEN AMENDMENT	Effective date: 20191101 Text: JAPANESE INTERMEDIATE CODE: A523
JP2018150237 A2	20191226	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2018150237 A2	20200107	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	Effective date: 20200107 Text: JAPANESE INTERMEDIATE CODE: A01
JP2018150237 A2	20200210	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	Effective date: 20200206 Text: JAPANESE INTERMEDIATE CODE: A61
JP2018150237 A2	20200210	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	Ref document number: 6659768 Text: JAPANESE INTERMEDIATE CODE: R150 Country of Ref document: JP
JP2019206710 A2	20190718		A63	特許願 (Request for a Patent)	Effective date: 20190718
JP2019206710 A2	20190816	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	Effective date: 20190816 Text: JAPANESE INTERMEDIATE CODE: A621
JP2019206710 A2	20190816	LSES	+A621	出願審査請求書 (Request for Examination)	Effective date: 20190816
JP2019206710 A2	20191021		A972001	要約不備職権訂正 (Notification of Ex Officio Correction of Defective Abstract)	Effective date: 20191021
JP2019206710 A2	20191205	LSPB	+	published / reissued	
JP2019206710 A2	20200108	LSRE	A521	WRITTEN AMENDMENT	Effective date: 20200108 Text: JAPANESE INTERMEDIATE CODE: A523
JP2019206710 A2	20200108		A523	手続補正書 (Written amendment)	Effective date: 20200108
JP2019206710 A2	20200108		A781	上申書 (Appeal)	Effective date: 20200108
JP2019206710 A2	20200108		A781	上申書 (Written Statement)	
JP2019206710 A2	20200421	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Effective date: 20200421 Text: JAPANESE INTERMEDIATE CODE: A131
JP2019206710 A2	20200421	LSES	-A131	拒絶理由通知書 (Notice of Reasons for Refusal)	Effective date: 20200421
JP2019206710 A2	20200720		A601	WRITTEN REQUEST FOR EXTENSION OF TIME	Effective date: 20200720 Text: JAPANESE INTERMEDIATE CODE: A601
JP2019206710 A2	20200720		A601	期間延長請求書 (Request for Extension of Time Limits)	Effective date: 20200720
JP2019206710 A2	20200915	LSRE	A521	WRITTEN AMENDMENT	Effective date: 20200915 Text: JAPANESE INTERMEDIATE CODE: A523
JP2019206710 A2	20200915		A523	手続補正書 (Written amendment)	Effective date: 20200915
JP2019206710 A2	20200915		A53	意見書 (Written opinion)	Effective date: 20200915
JP2019206710 A2	20210126	LSRV	-A02	DECISION OF REFUSAL	Effective date: 20210126 Text: JAPANESE INTERMEDIATE CODE: A02
JP2019206710 A2	20210126	LSRV	-A02	拒絶査定 (Rejection assessment)	Effective date: 20210126
JP6346186 B2	20180426	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP6346186 B2	20180529	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP6346186 B2	20180601	LSGT	+R150	特許証 (Patent certificate)	
JP6346186 B2	20180620	LSGT	+	granted / extensions (spc, cpc, pte)	
JP6346186 B2	20331014	PEXP		Calculated Patent Term Expiry	

JP6560196 B2	20190620	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP6560196 B2	20190723	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP6560196 B2	20190726	LSGT	+R150	特許証 (Patent certificate)	
JP6560196 B2	20190814	LSGT	+	granted / extensions (spc, cpc, pte)	
JP6560196 B2	20340929	PEXP		Calculated Patent Term Expiry	
JP6659768 B2	20180620	LSRE	A521	WRITTEN AMENDMENT	Effective date: 20180620 Text: JAPANESE INTERMEDIATE CODE: A523
JP6659768 B2	20200109	LSGT	+A01	特許査定書 (Decision of patent grant)	Effective date: 20200107
JP6659768 B2	20200207	LSFE	R100	特許料納付書 (Patent fee payment form)	Effective date: 20200206
JP6659768 B2	20200210	LSGT	+R150	特許証 (Patent certificate)	Effective date: 20200225
JP6659768 B2	20200304	LSGT	+	granted / extensions (spc, cpc, pte)	
JP6659768 B2	20380524	PEXP		Calculated Patent Term Expiry	
KR20150077437 A	20150707	LSPB	+	published / reissued	
KR20150077437 A	20200227	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20150077437 A	20201130	LSRV	-E90F	NOTIFICATION OF REASON FOR FINAL REFUSAL	
KR20160065869 A	20160609	LSPB	+	published / reissued	
KR20160065869 A	20190926	LSES	A201	REQUEST FOR EXAMINATION	
LT2912071 T	20200910	LSGT	+	granted / extensions (spc, cpc, pte)	
LT2912071 T	20331014	PEXP		Calculated Patent Term Expiry	
MX2015004978 A1	20150717	LSPB	+	published / reissued	
MX2015004978 A1	20191120	LSGT	+FG	GRANT OR REGISTRATION	
MX2016004060 A1	20160622	LSPB	+	published / reissued	
MX2019013822 A1	20200115	LSPB	+	published / reissued	
MX369731 B	20191120	LSGT	+	granted / extensions (spc, cpc, pte)	
MX369731 B	20331014	PEXP		Calculated Patent Term Expiry	
NZ707559 A	20190329	LSPB	+	published / reissued	
NZ707559 A	20190726	LSGT	+PSEA	PATENT SEALED	
NZ707559 A	20190927	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	Effective date: 20190918 Text: PATENT RENEWED FOR 1 YEAR UNTIL 14 OCT 2020 BY COMPUTER PACKAGES INC
NZ707559 A	20200925	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	Effective date: 20200918 Text: PATENT RENEWED FOR 1 YEAR UNTIL 14 OCT 2021 BY COMPUTER PACKAGES INC
NZ747277 A	20200327	LSPB	+	published / reissued	
NZ747277 A	20200731	LSGT	+PSEA	PATENT SEALED	
NZ747277 A	20200925	LSFE	+RENW	RENEWAL (RENEWAL FEES ACCEPTED)	Effective date: 20200918 Text: PATENT RENEWED FOR 1 YEAR UNTIL 14 OCT 2021 BY COMPUTER PACKAGES INC
PE06672016 A1	20160709	LSPB	+	published / reissued	
PE10332015 A1	20150819	LSPB	+	published / reissued	

PE20151033 A1	20150819	LSPB	+	published / reissued	
PE20160667 A1	20160709	LSPB	+	published / reissued	
PE20200087 A1	20200115	LSPB	+	published / reissued	
PL2912071 T3	20201116	LSGT	+	granted / extensions (spc, cpc, pte)	
PT2912071 T	20200727	LSGT	+	granted / extensions (spc, cpc, pte)	
PT2912071 T	20331014	PEXP		Calculated Patent Term Expiry	
RU2015117913 A	20161210	LSPB	+	published / reissued	
RU2016114846 A	20171023	LSPB	+	published / reissued	
RU2018137709 A	20190322	LSPB	+	published / reissued	
RU2641350 C2	20180117	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2641350 C2	20331014	PEXP		Calculated Patent Term Expiry	
RU2671467 C2	20181031	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2671467 C2	20340929	PEXP		Calculated Patent Term Expiry	
TH159395 A	20170118	LSPB	+	published / reissued	
TH167533 A	20170907	LSPB	+	published / reissued	
TW201416225 A	20140501	LSPB	+	published / reissued	
TW201514315 A	20150416	LSPB	+	published / reissued	
TWI623418 B	20180511	LSGT	+	granted / extensions (spc, cpc, pte)	
TWI623418 B	20331018	PEXP		Calculated Patent Term Expiry	
TWI638050 B	20181011	LSGT	+	granted / extensions (spc, cpc, pte)	
TWI638050 B	20340930	PEXP		Calculated Patent Term Expiry	
UA118570 C2	20190211	LSGT	+	granted / extensions (spc, cpc, pte)	
UA118570 C2	20340929	PEXP		Calculated Patent Term Expiry	
US10399899 BB	20130909	LSAS	AS	ASSIGNMENT	Owner: UNITED STATES GYPSUM COMPANY, ILLINOIS PartyType: owner Effective date: 20130903 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:SANG, YIJUN;SONG, WEIXIN D;REEL/FRAME:031166/0436
US10399899 BB	20190903	LSGT	+	granted / extensions (spc, cpc, pte)	
US10399899 BB	20330315	PEXP		Calculated Patent Term Expiry	
US10464847 BB	20161122	LSAS	AS	ASSIGNMENT	Owner: UNITED STATES GYPSUM COMPANY, ILLINOIS PartyType: owner OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:SANG, YIJUN;LEE, CHRIS C.;CHAN, CESAR;AND OTHERS;SIGNING DATES FROM 20131001 TO 20131002;REEL/FRAME:040404/0884
US10464847 BB	20191105	LSGT	+	granted / extensions (spc, cpc, pte)	

US10464847 BB	20331202	PEXP		Calculated Patent Term Expiry (PTA 262 days and a terminal disclaimer has been filed)	
US10875935 BB	20171018	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:SANG, YIJUN;SONG, WEIXIN D.;CHAN, CESAR;AND OTHERS;SIGNING DATES FROM 20140925 TO 20140926;REEL/FRAME:043896/0303 Owner: UNITED STATES GYPSUM COMPANY, ILLINOIS PartyType: owner
US10875935 BB	20171018	LSFE	FEPP	FEE PAYMENT PROCEDURE	Text: ENTITY STATUS SET TO UNDISCOUNTED (ORIGINAL EVENT CODE: BIG.); ENTITY STATUS OF PATENT OWNER: LARGE ENTITY
US10875935 BB	20201229	LSGT	+	granted / extensions (spc, cpc, pte)	
US10875935 BB	20330315	PEXP		Calculated Patent Term Expiry	
US2014113124 AA	20140424	LSPB	+	published / reissued	
US2014113124 AA	20150504		RFE1	Docketed New Case - Ready for Examination	
US2014113124 AA	20170505		RSP1	Response after Final Action Forwarded to Examiner	
US2014113124 AA	20170519	LSES	ADV2	Advisory Action Counted, Not Yet Mailed	
US2014113124 AA	20170523	LSES	ADV1	Advisory Action Mailed	
US2014113124 AA	20170713		RFE1	Docketed New Case - Ready for Examination	
US2014113124 AA	20170807	LSES	NFA1	Non Final Action Mailed	
US2014113124 AA	20171114		RSP4	Response to Non-Final Office Action Entered and Forwarded to Examiner	
US2014113124 AA	20180104		FRM1	Final Rejection Mailed	
US2014113124 AA	20180416		RSP1	Response after Final Action Forwarded to Examiner	
US2014113124 AA	20180508	LSES	ADV1	Advisory Action Mailed	
US2014113124 AA	20180619	LSES	NFA1	Non Final Action Mailed	
US2014113124 AA	20181231	LSES	NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2014113124 AA	20181231		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: NOTICE OF ALLOWANCE MAILED -- APPLICATION RECEIVED IN OFFICE OF PUBLICATIONS
US2014113124 AA	20190409		RFE1	Docketed New Case - Ready for Examination	
US2014113124 AA	20190409		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: DOCKETED NEW CASE - READY FOR EXAMINATION
US2014113124 AA	20190503	LSES	NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2014113124 AA	20190503		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND	Text: NOTICE OF ALLOWANCE MAILED -- APPLICATION RECEIVED IN OFFICE OF PUBLICATIONS

				GRANTING PROCEDURE IN GENERAL	
US2014113124 AA	20190808	LSFE	PPV1	Publications -- Issue Fee Payment Verified	
US2014113124 AA	20190808		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: PUBLICATIONS -- ISSUE FEE PAYMENT VERIFIED
US2014113124 AA	20190814	LSGT	PAT1	Patented Case	
US2014113124 AA	20190814	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2014113128 AA	20140424	LSPB	+	published / reissued	
US2014113128 AA	20161221	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2015010767 AA	20150108	LSPB	+	published / reissued	
US2015010767 AA	20170417		RSP4	Response to Non-Final Office Action Entered and Forwarded to Examiner	
US2015010767 AA	20170725	LSES	NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2015010767 AA	20171023	LSFE	PPR1	Publications -- Issue Fee Payment Received	
US2015010767 AA	20171024	LSFE	PPV1	Publications -- Issue Fee Payment Verified	
US2015010767 AA	20171108	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2017073272 AA	20170306		RFE1	Docketed New Case - Ready for Examination	
US2017073272 AA	20170316	LSPB	+	published / reissued	
US2017073272 AA	20181106	LSES	NFA1	Non Final Action Mailed	
US2017073272 AA	20190317		RSP4	Response to Non-Final Office Action Entered and Forwarded to Examiner	
US2017073272 AA	20190317		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: RESPONSE TO NON-FINAL OFFICE ACTION ENTERED AND FORWARDED TO EXAMINER
US2017073272 AA	20190624	LSES	NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2017073272 AA	20190624		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: NOTICE OF ALLOWANCE MAILED -- APPLICATION RECEIVED IN OFFICE OF PUBLICATIONS
US2017073272 AA	20191001	LSFE	PPV1	Publications -- Issue Fee Payment Verified	
US2017073272 AA	20191001		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: PUBLICATIONS -- ISSUE FEE PAYMENT VERIFIED
US2017073272 AA	20191016	LSGT	PAT1	Patented Case	
US2017073272 AA	20191016	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2018037671 AA	20180208	LSPB	+	published /	

				reissued	
US2018037671 AA	20180308		RFE1	Docketed New Case - Ready for Examination	
US2018037671 AA	20190326	LSES	NFA1	Non Final Action Mailed	
US2018037671 AA	20190326		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: NON FINAL ACTION MAILED
US2018037671 AA	20190816		RSP4	Response to Non-Final Office Action Entered and Forwarded to Examiner	
US2018037671 AA	20190816		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: RESPONSE TO NON-FINAL OFFICE ACTION ENTERED AND FORWARDED TO EXAMINER
US2018037671 AA	20191031		FRM1	Final Rejection Mailed	
US2018037671 AA	20191031		-STCB	INFORMATION ON STATUS: APPLICATION DISCONTINUATION	Text: FINAL REJECTION MAILED
US2018037671 AA	20200211	LSES	ADV1	Advisory Action Mailed	
US2018037671 AA	20200211		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: ADVISORY ACTION MAILED
US2018037671 AA	20200314		RFE1	Docketed New Case - Ready for Examination	
US2018037671 AA	20200512	LSES	NFA1	Non Final Action Mailed	
US2018037671 AA	20200512		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: NON FINAL ACTION MAILED
US2018037671 AA	20200804		RSP4	Response to Non-Final Office Action Entered and Forwarded to Examiner	
US2018037671 AA	20200901	LSES	NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US2018037671 AA	20200901		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: NOTICE OF ALLOWANCE MAILED -- APPLICATION RECEIVED IN OFFICE OF PUBLICATIONS
US2018037671 AA	20201120	LSFE	PPR1	Publications -- Issue Fee Payment Received	
US2018037671 AA	20201120		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: PUBLICATIONS -- ISSUE FEE PAYMENT RECEIVED
US2018037671 AA	20201209	LSGT	PAT1	Patented Case	
US2018037671 AA	20201209	LSGT	STCF	INFORMATION ON STATUS: PATENT GRANT	Text: PATENTED CASE
US2018339944 AA	20180802	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:SANG, YIJUN;LEE, CHRIS C.;CHAN, CESAR;AND OTHERS;SIGNING DATES FROM 20131001 TO 20131002;REEL/FRAME:046543/0125 Owner: UNITED STATES GYPSUM COMPANY, ILLINOIS PartyType: owner
US2018339944 AA	20180912		RFE1	Docketed New Case	

				- Ready for Examination	
US2018339944 AA	20180912		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: DOCKETED NEW CASE - READY FOR EXAMINATION
US2018339944 AA	20181129	LSPB	+	published / reissued	
US2018339944 AA	20200526	LSES	NFA1	Non Final Action Mailed	
US2018339944 AA	20200720		RSP4	Response to Non-Final Office Action Entered and Forwarded to Examiner	
US2018339944 AA	20200720		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: RESPONSE TO NON-FINAL OFFICE ACTION ENTERED AND FORWARDED TO EXAMINER
US2020024190 AA	20190828	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:SANG, YIJUN;SONG, WEIXIN D.;REEL/FRAME:050204/0261 Effective date: 20130903 Owner: UNITED STATES GYPSUM COMPANY, ILLINOIS PartyType: owner
US2020024190 AA	20200121		RFE1	Docketed New Case - Ready for Examination	
US2020024190 AA	20200121		STPP	INFORMATION ON STATUS: PATENT APPLICATION AND GRANTING PROCEDURE IN GENERAL	Text: DOCKETED NEW CASE - READY FOR EXAMINATION
US2020024190 AA	20200123	LSPB	+	published / reissued	
US9540810 BB	20131008	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:SANG, YIJUN;LEE, CHRIS C;CHAN, CESAR;AND OTHERS;SIGNING DATES FROM 20131001 TO 20131002;REEL/FRAME:031361/0296 Owner: UNITED STATES GYPSUM COMPANY, ILLINOIS PartyType: owner
US9540810 BB	20150730	LSES	NFA1	Non Final Action Mailed	
US9540810 BB	20151210		RSP4	Response to Non-Final Office Action Entered and Forwarded to Examiner	
US9540810 BB	20161221	LSGT	PAT1	Patented Case	
US9540810 BB	20170110	LSGT	+	granted / extensions (spc, cpc, pte)	
US9540810 BB	20200710	LSFE	+MAFP	MAINTENANCE FEE PAYMENT	Year of fee payment: 4
US9540810 BB	20330315	PEXP		Calculated Patent Term Expiry	
US9828441 BB	20140926	LSAS	AS	ASSIGNMENT	OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:SANG, YIJUN;SONG, WEIXIN D;CHAN, CESAR;AND OTHERS;SIGNING DATES FROM 20140925 TO 20140926;REEL/FRAME:033831/0685 Owner: UNITED STATES GYPSUM COMPANY, ILLINOIS PartyType: owner
US9828441 BB	20150117		RFE1	Docketed New Case - Ready for Examination	
US9828441 BB	20171108	LSGT	PAT1	Patented Case	
US9828441 BB	20171128	LSGT	+	granted / extensions (spc, cpc, pte)	
US9828441 BB	20330315	PEXP		Calculated Patent Term Expiry	

WO14066079 A2	20140501	LSPB	+	published / reissued	
WO14066079 A2	20140618		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Kind code of Ref document: A2 Ref document number: 13783185 Country of Ref document: EP
WO14066079 A2	20150409	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 2887346 Country of Ref document: CA
WO14066079 A2	20150417	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 2015537757 Country of Ref document: JP
WO14066079 A2	20150420	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: MX/A/2015/004978 Country of Ref document: MX
WO14066079 A2	20150422	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 000526-2015 Country of Ref document: PE
WO14066079 A2	20150423	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO14066079 A2	20150428		REG	REFERENCE TO NATIONAL CODE	Ref country code: BR Ref document number: 112015008774 Ref legal event code: B01A Country of Ref document: BR
WO14066079 A2	20150501	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2013783185 Country of Ref document: EP
WO14066079 A2	20150506	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: IDP00201502723 Country of Ref document: ID
WO14066079 A2	20150508	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 20157012060 Country of Ref document: KR
WO14066079 A2	20150508	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 15105909 Country of Ref document: CO
WO14066079 A2	20150513	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 2015117913 Country of Ref document: RU
WO14066079 A2	20150521	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Date of Ref document: 20131014 Kind code of Ref document: A Ref document number: 2013335106 Country of Ref document: AU
WO14066079 A3	20170704	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Effective date: 20150417 Kind code of Ref document: A2 Ref document number: 112015008774 Country of Ref document: BR
WO15050804 A1	20150409	LSPB	+	published / reissued	
WO15050804 A1	20150520		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Kind code of Ref document: A1 Ref document number: 14789654 Country of Ref document: EP
WO15050804 A1	20160324	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Ref document number: 2925619 Country of Ref document: CA
WO15050804 A1	20160328	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 000418-2016 Country of Ref document: PE
WO15050804 A1	20160329	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 2016518449 Country of Ref document: JP
WO15050804 A1	20160330	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: MX/A/2016/004060 Country of Ref document: MX
WO15050804 A1	20160404	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE
WO15050804 A1	20160412		REG	REFERENCE TO NATIONAL CODE	Ref country code: BR Ref document number: 112016007044 Ref legal event code: B01A Country of Ref document: BR

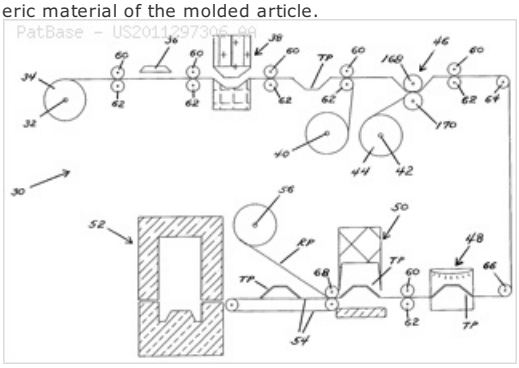
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WO15050804 A1	20160414	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 20167009760 Country of Ref document: KR
WO15050804 A1	20160418	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Kind code of Ref document: A Ref document number: 2016114846 Country of Ref document: RU
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WO15050804 A1	20160419	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: A201604338 Country of Ref document: UA
WO15050804 A1	20160420		+REEP	REQUEST FOR ENTRY INTO THE EUROPEAN PHASE	Ref document number: 2014789654 Country of Ref document: EP
WO15050804 A1	20160420	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2014789654 Country of Ref document: EP
WO15050804 A1	20160505	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Date of Ref document: 20140929 Kind code of Ref document: A Ref document number: 2014329817 Country of Ref document: AU
WO15050804 A1	20170801	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE	Effective date: 20160330 Kind code of Ref document: A2 Ref document number: 112016007044 Country of Ref document: BR
ZA201503140 A	20160127	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA201503140 A	20350506	PEXP		Calculated Patent Term Expiry	
ZA201602499 A	20180328	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA201602499 A	20360412	PEXP		Calculated Patent Term Expiry	

100) Family number: 43489220 (US2011297306 AA)

Title: METHOD FOR MOLDING AN OBJECT CONTAINING A RADIO FREQUENCY IDENTIFICATION TAG

Abstract: A method for applying a radio frequency identification tag to an object, e.g., a container, by means of an insert molding process or in-mold decorating process. Such a method can be utilized to simplify the **manufacturing** processes for applying a radio frequency identification tag to an object, e.g., a container. The molding process can be a conventional molding process, such as, for example, injection molding, blow molding, **compression** molding, transfer molding, and rotational molding. However, the conventional molding process is modified by inserting a radio frequency identification tag into the cavity of the mold prior to forming the molded article. The modified molding process results in a molded article having a radio frequency identification tag encapsulated by the polymeric material of the molded article.

Classifications:
International (IPC 8-9): B29C35/04 B29C35/08 B29C45/14 B29C49/24 B29C51/10 B29C51/14 B29K105/26 B29K25/00 B29K67/00 B29L31/00 B29L9/00 B32B37/02 B32B37/06 B32B37/12 B32B38/10 G01S13/75 G01S13/76 G01S13/79 G08B13/14
CPC: B29C2035/047 B29C2035/0822 B29C2045/1404 B29C2045/14049 B29C2045/14237 B29C2045/14254 B29C2045/14844 B29C2045/14852 B29C2049/2412 B29C2049/2466 B29C2049/2472 B29C2791/001 B29C2791/006 B29C2791/007 B29C2793/00 B29C2793/009 B29C45/14008 B29C45/14221 B29C45/14836 B29C51/10 B29K2023/06 B29K2023/12 B29K2025/00 B29K2067/00 B29K2105/26 B29L2009/001 B29L2031/712
US: 156/242 235/375 235/492 340/572.1 340/572.8



Family:

Publication number	Publication date	Application number	Application date
CA2706570 AA	20090709	CA20082706570	20081212
DE602008032636 D1	20140717	DE200860032636T	20081212
EP2231379 A1	20100929	EP20080868545	20081212
EP2231379 B1	20140604	EP20080868545	20081212
JP2011518681 T2	20110630	JP20100539641T	20081212
JP5265701 B2	20130814	JP20100539641T	20081212
US2011297306 AA	20111208	US20070960149	20071219
US8094027 BB	20120110	US20070960149	20071219
WO09085646 A1	20090709	WO2008US86526	20081212

Priority:
US20070960149 20071219 WO2008US86526 20081212 EP20080868545 20081212

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Assignee(s): (std): ABBOTT LAB ; YANG TAHUA
Assignee(s): ABBOTT LABORATORIES ; ABBOTT LABORATORIES ABBOTT PARK
Inventor(s): (std): YANG TAHUA
Agent(s): KAWAGUTI AND PARTNERS; MODIANO MICAELA NADIA; TIMOTHY P; WEINSTEIN DAVID L ET AL
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CA2706570 AA	20090709	LSPB	+	published / reissued	
CA2706570 AA	20131204	LSES	+EEER	EXAMINATION REQUEST	Effective date: 20131125
CA2706570 AA	20170125	LSLE	-FZDE	DEAD	Effective date: 20161214
DE602008032636 D1	20131114		R079	AMENDMENT OF IPC MAIN CLASS	ClassificationScheme: IPC ClassificationSymbol: B29C0045140000 Text: PREVIOUS MAIN CLASS: B29C0045140000
DE602008032636 D1	20150701	LSDW	-R119	APPLICATION DEEMED WITHDRAWN, OR IP RIGHT LAPSED, DUE TO NON-PAYMENT OF RENEWAL FEE	
EP2231379 A1	20100929	LSPB	+	published / reissued	
EP2231379 A1	20100929	LSES	+17P	REQUEST FOR EXAMINATION FILED	Effective date: 20100617
EP2231379 A1	20100929		+AK	DESIGNATED CONTRACTING	Kind code of Ref document: A1 Country of Ref document: AT BE BG

			STATES	CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR
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EP2231379 A1	20131030	RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: B29C 35/04 20060101ALN20130926BHEP
EP2231379 A1	20131030	RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: B29C 49/24 20060101ALN20130926BHEP
EP2231379 A1	20131030	RIC1	INFORMATION PROVIDED ON IPC CODE ASSIGNED BEFORE GRANT	ClassificationScheme: IPC ClassificationSymbol: B29K 105/26 20060101ALN20130926BHEP
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EP2231379 B1	20140604	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2231379 B1	20140604		+AK	DESIGNATED CONTRACTING STATES	Kind code of Ref document: B1 Country of Ref document: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR
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EP2231379 B1	20140613	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: EP
EP2231379 B1	20140615	LSNP	REG	REFERENCE TO A NATIONAL CODE	Ref document number: 670808 Ref legal event code: REF Ref country code: AT Effective date: 20140615 Kind code of Ref document: T Country of Ref document: AT
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EP2231379 B1	20140717	LSPB	REG	REFERENCE TO A NATIONAL CODE	Ref document number: 602008032636 Ref country code: DE Effective date: 20140717 Ref legal event code: R096 Country of Ref document: DE
EP2231379 B1	20141015	LSRV	REG	REFERENCE TO A NATIONAL CODE	Ref country code: AT Ref document number: 670808 Effective date: 20140604 Ref legal event code: MK05 Kind code of Ref document: T Country of Ref document: AT
EP2231379 B1	20141029	LSRV	REG	REFERENCE TO A NATIONAL CODE	Ref legal event code: VDEP Effective date: 20140604 Ref country code: NL
EP2231379 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20140604 Country of Ref document: CY

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EP2231379 B1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20140604 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: FI
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EP2231379 B1	20141125	LSRV	REG	REFERENCE TO A NATIONAL CODE	Ref country code: LT Ref legal event code: MG4D
EP2231379 B1	20141128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20140604 Country of Ref document: AT
EP2231379 B1	20141128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20140604 Country of Ref document: LV
EP2231379 B1	20141128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20140604 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: SE
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EP2231379 B1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20140604 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: EE
EP2231379 B1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20140604 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: ES
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EP2231379 B1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20140604 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT

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EP2231379 B1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20140604 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: SK
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EP2231379 B1	20150227	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20140604 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: NL
EP2231379 B1	20150227	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20141004 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: IS
EP2231379 B1	20150227	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20140604 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: PL
EP2231379 B1	20150305	LSRE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: DE Ref document number: 602008032636 Ref legal event code: R097 Country of Ref document: DE
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EP2231379 B1	20150701	LSDW	REG	REFERENCE TO A NATIONAL CODE	Ref country code: DE Ref document number: 602008032636 Ref legal event code: R119 Country of Ref document: DE
EP2231379 B1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20141212 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: LU
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EP2231379 B1	20150731	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: CH Ref legal event code: PL
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EP2231379 B1	20150923	LSLE	REG	REFERENCE TO A NATIONAL CODE	Ref country code: IE Ref legal event code: MM4A
EP2231379 B1	20150925	LSLE	REG	REFERENCE TO A NATIONAL CODE	Effective date: 20150831 Ref country code: FR Ref legal event code: ST
EP2231379 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20141212 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: GB
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EP2231379 B1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Lapsed date: 20141212 Country of Ref document: IE
EP2231379 B1	20151130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20141231 NotificationOfLapse: LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES Country of Ref document: FR
EP2231379 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20140604 Country of Ref document: MC
EP2231379 B1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20140604 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: BG
EP2231379 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	Lapsed date: 20140604 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Country of Ref document: TR
EP2231379 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT INFORMATION FROM NATIONAL OFFICE TO EPO]	NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT Lapsed date: 20140604 Country of Ref document: MT
EP2231379 B1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE [ANNOUNCED VIA POSTGRANT	Lapsed date: 20081212 NotificationOfLapse: LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE

				INFORMATION FROM NATIONAL OFFICE TO EPO]	DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO Country of Ref document: HU
EP2231379 B1	20281212	PEXP		Calculated Patent Term Expiry	
JP2011518681 T2	20110630	LSPB	+	published / reissued	
JP2011518681 T2	20110802	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	Effective date: 20110801 Text: JAPANESE INTERMEDIATE CODE: A621
JP2011518681 T2	20121219		A977	REPORT ON RETRIEVAL	Effective date: 20121219 Text: JAPANESE INTERMEDIATE CODE: A971007
JP2011518681 T2	20121226	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	Effective date: 20121225 Text: JAPANESE INTERMEDIATE CODE: A131
JP2011518681 T2	20130302	LSRE	A521	WRITTEN AMENDMENT	Effective date: 20130301 Text: JAPANESE INTERMEDIATE CODE: A523
JP2011518681 T2	20130326	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2011518681 T2	20130403	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	Effective date: 20130402 Text: JAPANESE INTERMEDIATE CODE: A01
JP2011518681 T2	20130509	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	Effective date: 20130501 Text: JAPANESE INTERMEDIATE CODE: A61
JP2011518681 T2	20130510	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	Text: JAPANESE INTERMEDIATE CODE: R150
JP5265701 B2	20130404	LSGT	+A01	特許査定書 (Decision of patent grant)	
JP5265701 B2	20130507	LSFE	R100	特許料納付書 (Patent fee payment form)	
JP5265701 B2	20130510	LSGT	+R150	特許証 (Patent certificate)	
JP5265701 B2	20130814	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5265701 B2	20160510	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP5265701 B2	20281212	PEXP		Calculated Patent Term Expiry	
US2011297306 AA	20111208	LSPB	+	published / reissued	
US8094027 BB	20080624	LSAS	AS	ASSIGNMENT	Effective date: 20080624 OldParty: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:YANG, TAHUA;REEL/FRAME:021143/0176 Owner: ABBOTT LABORATORIES, ILLINOIS PartyType: owner
US8094027 BB	20111221	LSGT	PAT1	Patented Case	
US8094027 BB	20120110	LSGT	+	granted / extensions (spc, cpc, pte)	
US8094027 BB	20150821		REMI	MAINTENANCE FEE REMINDER MAILED	
US8094027 BB	20160110	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US8094027 BB	20160208	LSLE	PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US8094027 BB	20160208	LSLE	-STCH	INFORMATION ON STATUS: PATENT DISCONTINUATION	Text: PATENT EXPIRED DUE TO NONPAYMENT OF MAINTENANCE FEES UNDER 37 CFR 1.362
US8094027 BB	20160301	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	Effective date: 20160110

US8094027 BB	20301108	PEXP		Calculated Patent Term Expiry (PTA 1055 days)	
WO09085646 A1	20090709	LSPB	+	published / reissued	
WO09085646 A1	20090909		121	EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION	Kind code of Ref document: A1 Ref document number: 08868545 Country of Ref document: EP
WO09085646 A1	20100521	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2706570 Country of Ref document: CA
WO09085646 A1	20100617	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2008868545 Country of Ref document: EP
WO09085646 A1	20100618	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	Ref document number: 2010539641 Country of Ref document: JP
WO09085646 A1	20100622	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE	Ref country code: DE