

1) Family number: 31418010 (US2004258910A)

© PatBase

Title: WATER-DISPERSIBLE AND MULTICOMPONENT FIBERS FROM SULFOPOLYESTERS

Abstract: Disclosed are water-dispersible fibers derived from sulfopolyesters having a Tg of at least 25 degrees centigrade. The fibers may contain a single sulfopolyester or a blend of a sulfopolyester with a water-dispersible or water-nondispersible polymer. Also disclosed are multicomponent fibers comprising a water dispersible sulfopolyester having a Tg of at least 57 degrees centigrade and a water non-dispersible polymer. The multicomponent fibers may be used to produce microdenier fibers. Fibrous articles may be produced from the water-dispersible fibers, multicomponent fibers, and microdenier fibers. The fibrous articles include water-dispersible and microdenier nonwoven webs, fabrics, and multilayered articles such as wipes, gauze, tissue, diapers, panty liners, sanitary napkins, bandages, and surgical dressings. Also disclosed is a process for water-dispersible fibers, nonwoven fabrics, and microdenier webs. The fibers and fibrous articles have further applications in flushable personal care and cleaning products, disposable protective outerwear, and laminating binders.

Classifications:

International (IPC 8-9): A41D13/12 A41D19/00 A41D27/12 A47C20/02 A47G9/08 A47K7/02 A61B19/08 A61F13/00 A61F13/15 A61F13/49 A61F13/53 A61F13/551 A61K47/32 A61K47/34 A61K8/02 A61K8/85 A61K8/899 A61K9/00 A61K9/70 A61L15/22 A61L15/44 A61L15/46 A61L9/04 A61P17/00 A61Q13/00 A61Q19/00 A61Q19/10 B01D39/06 B01D39/14 B01F17/00 B02C19/00 B08B1/00 B28B3/20 B29C47/00 B29C47/06 B32B1/02 B32B25/02 B32B25/10 B32B27/02 B32B29/00 B32B3/00 B32B5/02 B32B5/16 B42D15/00 C08G63/00 C08G63/68 C08G63/688 C08G75/24 C08L101/00 C08L67/02 C08L81/08 C11D17/00 C11D37/37 D01D10/00 D01D5/00 D01D5/08 D01D5/088 D01D5/098 D01D5/10 D01D5/12 D01D5/16 D01D5/30 D01D5/32 D01D5/34 D01D5/36 D01F1/00 D01F1/04 D01F1/09 D01F1/10 D01F6/00 D01F6/62 D01F6/84 D01F6/86 D01F6/92 D01F8/00 D01F8/04 D01F8/14 D01F9/00 D02G1/00 D02G1/02 D02G3/00 D02G3/02 D02G3/04 D02G3/22 D02G3/36 D02J1/22 D03D15/00 D03D15/06 D03D23/00 D04B1/16 D04H1/00 D04H1/20 D04H1/42 D04H1/43 D04H1/435 D04H1/4374 D04H1/4382 D04H1/4391 D04H1/46 D04H1/485 D04H1/492 D04H1/50 D04H1/56 D04H13/00 D04H3/00 D04H3/011 D04H3/016 D04H3/02 D04H3/10 D04H3/14 D04H3/147 D04H3/16 D04H5/00 D04H5/10 D04H5/30 D04H5/32 D06M11/00 D06M11/05 D21H13/10 D21H13/20 D21H13/24 D21H13/40 D21H15/10 F21V1/00 H01M2/16 (Advanced/Invention); D01D5/08 D01D5/34 D01F8/00 D01F8/14 D03D15/06 D04H1/42 D06M101/32 (Advanced/Non-invention); A61K8/72 A61Q19/00 B28B3/20 B29C47/00 C08G63/00 D01D5/08 D01D5/30 D01F6/00 D01F6/62 D01F6/78 D01F6/84 D01F6/92 D01F8/00 D01F8/14 D02G3/00 D04H1/42 D04H3/00 D04H3/02 D04H3/16 D21H13/00 (Core/Invention)

International (IPC 1-7): B28B3/20 B29C47/00 D01D5/08 D01D5/30

CPC: D04B1/16 D03D15/00 D02J1/22 D04H3/10 D04H3/16 Y10T428/2913

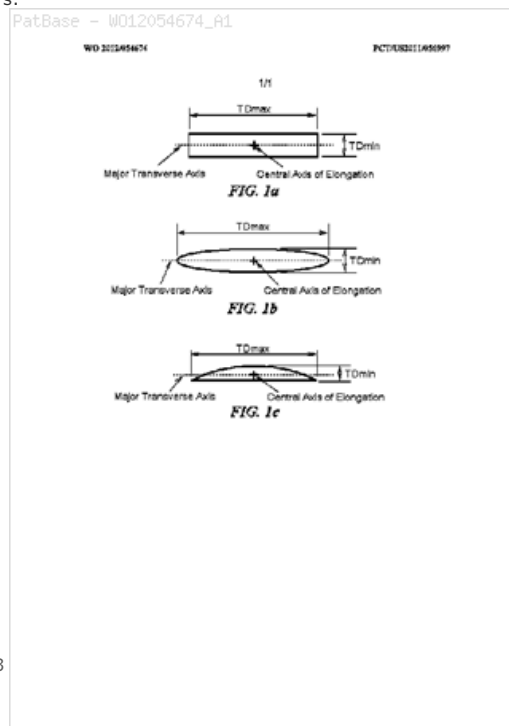
Y10T428/2918 Y10T428/2924 Y10T428/2929 Y10T428/2931 Y10T428/25 Y10T428/29 Y10T428/2915 Y10T428/2969 Y10T428/2904 Y10T428/298 Y10T428/1334 Y10T428/1345 Y10T428/24355 Y10T428/268 Y10T428/2927 Y10T442/2525 Y10T442/2861 Y10T442/30 Y10T442/3146 Y10T442/3154 Y10T442/3163 Y10T442/60 Y10T442/637 Y10T442/638 Y10T442/64 Y10T442/641 Y10T442/68 Y10T442/689 Y10T442/69 Y10T442/609 Y10T442/611 Y10T442/614 Y10T442/619 Y10T442/626 Y10T442/696 Y10T442/697 Y10T442/3065 Y10T428/249921 Y10T428/249938 D01D5/0985 D01D5/36 D04H1/4291 D04H1/435 D21H13/24 D21H13/40 D21H15/10 D04H1/492 D04H1/56 D04H1/4334 D04H1/4391 D04H1/4374 D01F6/84 A61K8/85 A61Q19/00 D01F6/86 D01F6/92 D21H13/20 D01F8/14 D04H1/4382 C08G63/6886 D04H1/485 D04H1/50

European: A61K8/85 A61Q19/00 D01D5/098B D01D5/36 D01F6/84 D01F6/86 D01F6/92 D01F8/14 D02J1/22 D04H1/42 D04H1/4291 D04H1/435 D04H1/4382 D04H1/56B D04H13/00B2 D04H3/10 D04H3/16 D21H13/20 D21H13/24 D21H13/40 D21H15/10

US: 128/849 15/104.93 15/104.930S 15/209.1 162/145 162/145S 162/146 162/146S 162/157.2 162/157.200S 162/157.3 162/157.300P 162/157.300S 2/114 2/114S 2/167 2/46 210/500.1 210/500.100P 241/1 241/1P 264/103 264/103P 264/103S 264/112 264/112 264/112P 264/115 264/115P 264/115S 264/129 264/129S 264/130 264/145 264/145S 264/164 264/172.11 264/172.110S 264/172.13 264/172.130P 264/172.130S 264/172.14 264/172.15 264/172.150P 264/172.150S 264/172.16 264/172.160S 264/172.17 264/172.170S 264/172.18 264/172.180S 264/173.16 264/173.160S 264/173.19 264/173.190S 264/176.1 264/176.100S 264/178.00FS 264/178F 264/210.6 264/210.8 264/211 264/211.12 264/211.120S 264/211.14 264/211.140S 264/211.15 264/211.16 264/211.22 264/211.220S 28/140 283/72 362/351 424/400 424/401 424/401P 424/443 424/443P 424/443S 425/437 428/141 428/221 428/221S 428/296.7 428/323 428/323S 428/338 428/35.2 428/35.5 428/357 428/357S 428/359 428/364 428/364P 428/364S 428/365 428/365S 428/367 428/367P 428/370 428/372 428/372S 428/373 428/373P 428/373S 428/374 428/374S 428/395 428/401 428/401S 429/247 442/123 442/164 442/164S 442/181 442/181S 442/189 442/199 442/199S 442/200 442/200P 442/201 442/201S 442/296.7 442/327 442/327S 442/335 442/337 442/340 442/344 442/344S 442/351 442/351P 442/351S 442/361 442/361S 442/362 442/362S 442/363 442/363S 442/364 442/364P 442/400 442/400S 442/401 442/401S 442/408 442/408S 442/409 442/409S 442/414 442/415 5/413R 5/653 510/130 510/130S 510/445 510/445S 510/476 510/476S 512/4 512/4S 514/772.3 514/772.300P 514/772.300S 516/200 516/200S 523/105 523/105S 524/500 524/500S 525/437 525/437P 525/535 525/535S 528/293 528/295 528/360 528/360S 55/527 55/527S 602/43 602/43P 602/48 604/358 604/359 604/359 604/359P 604/367 604/367S 604/372 604/372S

Family:

Publication number	Publication date	Application number	Application date
AT399891 E	20080715	AT20040755058T	20040610
AT456689 E	20100215	AT20040019963T	20040610
BR112013009684 A2	20160712	BR20131109684	20111020



BR112014017441 A2	20170613	BR20141117441	20130117
BR112014017441 A8	20170704	BR20141117441	20130117
BR112014017441 A8	20170704	BR20141117441	20130117
BR112014017441 A8	20170613	BR20141117441	20130117
BRPI0909456 A2	20160816	BR2009PI09456	20090319
CN101356306 A	20090128	CN200780001225	20070116
CN101573482 A	20091104	CN200780049183	20071217
CN102046860 A	20110504	CN200980120628	20090319
CN102046860 B	20140312	CN200980120628	20090319
CN102704036 A	20121003	CN201210181276	20070116
CN102704036 B	20160203	CN201210181276	20070116
CN102877160 A	20130116	CN201210270183	20070116
CN102877160 B	20160316	CN201210270183	20070116
CN102888671 A	20130123	CN201210266165	20070116
CN102888671 B	20160817	CN201210266165	20070116
CN104145053 A	20141112	CN201380013603	20130117
CN104321486 A	20150128	CN201180050648	20111020
CN106435822 A	20170222	CN201610605400	20070116
DE602004014770 D1	20080814	DE200460014770T	20040610
DE602004025396 D1	20100318	DE200460025396T	20040610
DE602009013889 D1	20130508	DE200960013889T	20090319
DE602011038424 D1	20170713	DE201160038424T	20111020
DK2271797 T3	20130610	DK20090727198T	20090319
DK2363517 T3	20180903	DK20100192073T	20070116
EP1641966 A2	20060405	EP20040755058	20040610
EP1641966 B1	20080702	EP20040755058	20040610
EP1884581 A1	20080206	EP20070019963	20040610
EP1884581 B1	20100127	EP20070019963	20040610
EP1941084 A2	20080709	EP20070716653	20070116
EP1941084 B1	20171129	EP20070716653	20070116
EP2099961 A2	20090916	EP20070853404	20071217
EP2271797 A1	20110112	EP20090727198	20090319
EP2271797 B1	20130313	EP20090727198	20090319
EP2319965 A1	20110511	EP20100192015	20070116
EP2322700 A1	20110518	EP20100192041	20070116
EP2363517 A1	20110907	EP20100192073	20070116
EP2363517 B1	20180718	EP20100192073	20070116
EP2487281 A1	20120815	EP20120167235	20071217
EP2630297 A1	20130828	EP20110835114	20111020
EP2630297 A4	20140326	EP20110835114	20111020
EP2630297 B1	20170531	EP20110835114	20111020
EP2804968 A1	20141126	EP20130738753	20130117
EP2804968 A4	20151014	EP20130738753	20130117
ES2403114 T3	20130514	ES20090727198T	20090319
IN02478DN2008 A	20080627	IN2008DN02478	20080325
IN02887DN2013 A	20160401	IN2013DN02887	20130402
IN03816DN2009 A	20100402	IN2009DN03816	20090611
IN05310DN2014 A	20160831	IN2014DN05310	20140627
IN06786DN2010 A	20110729	IN2010DN06786	20100927
IN261009 B	20140606	IN2008DN02478	20080325
JP2006528282 T2	20061214	JP20060517231T	20040610
JP2009525409 T2	20090709	JP20080552321T	20070116
JP2010514956 T2	20100506	JP20090544835T	20071217
JP2011094288 A2	20110512	JP20100281964	20101217
JP2011516740 T2	20110526	JP20110502934T	20090319
JP2012057291 A2	20120322	JP20110235388	20111026
JP2012233294 A2	20121129	JP20120162858	20120723
JP2013136868 A2	20130711	JP20130039549	20130228
JP2013540212 T2	20131031	JP20130535068T	20111020
JP2014051770 A2	20140320	JP20130184106	20130905
JP2015180791 A2	20151015	JP20150122040	20150617
JP2015510553 T2	20150409	JP20140553388T	20130117
JP2017020157 A2	20170126	JP20160164614	20160825
JP5260551 B2	20130814	JP20090544835T	20071217
JP5415770 B2	20140212	JP20080552321T	20070116
JP5865012 B2	20160217	JP20110235388	20111026
JP6063163 B2	20170118	JP20120162858	20120723
KR101109868 B1	20120215	KR20087018814	20070116
KR101316578 B1	20131015	KR20097013868	20071217
KR101321738 B1	20131029	KR20117015227	20070116
KR101362617 B1	20140212	KR20107024652	20090319
KR101541627 B1	20150803	KR20137017905	20090319
KR20090009188 A	20090122	KR20087018814	20070116
KR20090096494 A	20090910	KR20097013868	20071217
KR20100134088 A	20101222	KR20107024652	20090319
KR20110082198 A	20110718	KR20117015227	20070116

KR20110084337 A	20110721	KR20117015228	20070116
KR20130089285 A	20130809	KR20137017905	20090319
KR20130132442 A	20131204	KR20137012667	20111020
KR20140110087 A	20140916	KR20147022533	20130117
US2004258910 AA	20041223	US20040850548	20040520
US2004260034 AA	20041223	US20030465698	20030619
US2005282008 AA	20051222	US20050204868	20050816
US2006194047 AA	20060831	US20060344320	20060131
US2007259177 AA	20071108	US20070648955	20070103
US2008311815 AA	20081218	US20080199304	20080827
US2011089594 AA	20110421	US20100975456	20101222
US2011089595 AA	20110421	US20100975484	20101222
US2011089600 AA	20110421	US20100975447	20101222
US2011089601 AA	20110421	US20100975463	20101222
US2011091513 AA	20110421	US20100975482	20101222
US2011092123 AA	20110421	US20100982001	20101230
US2011092931 AA	20110421	US20100975459	20101222
US2011092932 AA	20110421	US20100975487	20101222
US2011095444 AA	20110428	US20100981950	20101230
US2011095445 AA	20110428	US20100981982	20101230
US2011097580 AA	20110428	US20100975443	20101222
US2011097959 AA	20110428	US20100981960	20101230
US2011105628 AA	20110505	US20100975450	20101222
US2011105975 AA	20110505	US20100975452	20101222
US2011139386 AA	20110616	US20100909574	20101021
US2011139908 AA	20110616	US20100966507	20101213
US2011140297 AA	20110616	US20100966494	20101213
US2011142896 AA	20110616	US20100966502	20101213
US2011142909 AA	20110616	US20100966512	20101213
US2011143624 AA	20110616	US20100966487	20101213
US2011168625 AA	20110714	US20110053615	20110322
US2012043683 AA	20120223	US20100966483	20101213
US2012058163 AA	20120308	US20100966521	20101213
US2012091613 AA	20120419	US20100966518	20101213
US2012251597 AA	20121004	US20120352362	20120118
US2013298362 AA	20131114	US20130944458	20130717
US2013299108 AA	20131114	US20130941816	20130715
US6989193 BB	20060124	US20040850548	20040520
US7687143 BB	20100330	US20070648955	20070103
US7892993 BB	20110222	US20060344320	20060131
US7902094 BB	20110308	US20050204868	20050816
US8148278 BB	20120403	US20100982001	20101230
US8158244 BB	20120417	US20100975459	20101222
US8163385 BB	20120424	US20100975450	20101222
US8178199 BB	20120515	US20110053615	20110322
US8216953 BB	20120710	US20100966487	20101213
US8227362 BB	20120724	US20100966502	20101213
US8236713 BB	20120807	US20100981960	20101230
US8247335 BB	20120821	US20100966512	20101213
US8257628 BB	20120904	US20100975456	20101222
US8262958 BB	20120911	US20100981950	20101230
US8273451 BB	20120925	US20100975452	20101222
US8277706 BB	20121002	US20100981982	20101230
US8314041 BB	20121120	US20100975487	20101222
US8388877 BB	20130305	US20100975463	20101222
US8398907 BB	20130319	US20100975447	20101222
US8435908 BB	20130507	US20100966521	20101213
US8444895 BB	20130521	US20100966483	20101213
US8444896 BB	20130521	US20100966518	20101213
US8513147 BB	20130820	US20080199304	20080827
US8557374 BB	20131015	US20100975482	20101222
US8623247 BB	20140107	US20100966507	20101213
US8691130 BB	20140408	US20100975484	20101222
WO04113598 A2	20041229	WO2004US18682	20040610
WO04113598 A3	20050310	WO2004US18682	20040610
WO04113598 C1	20050901	WO2004US18682	20040610
WO07089423 A2	20070809	WO2007US01082	20070116
WO07089423 A3	20080313	WO2007US01082	20070116
WO08085307 A2	20080717	WO2007US25661	20071217
WO08085307 A3	20081231	WO2007US25661	20071217
WO09123678 A1	20091008	WO2009US01717	20090319
WO12054674 A1	20120426	WO2011US56997	20111020
WO13109666 A1	20130725	WO2013US21803	20130117
WO13109667 A1	20130725	WO2013US21804	20130117

Priority:

US20040755698 20040619 US20060352818 20040520 US20040858682 20040600

US20050204868 20050816 US20060344320 20060131 US20070648955 20070103
US20070648955 20070104 CN200780001225 20070116 EP20070716653 20070116
JP20080552321 20070116 JP20080552321T 20070116 JP20110235388 20070116
JP20120162858 20070116 WO2007US01082 20070116 EP20070853404 20071217
WO2007US25661 20071217 US20080041699P 20080402 US20080041699 20080402
US20080199304 20080827 EP20090727198 20090319 JP20110502934 20090319
JP20110502934T 20090319 JP20130184106 20090319 WO2009US01717 20090319
US20100909574 20101021 US20100966507 20101213 US20100966494 20101213
US20100966502 20101213 US20100966512 20101213 US20100966487 20101213
US20100966483 20101213 US20100966521 20101213 US20100966518 20101213
US20100975456 20101222 US20100975447 20101222 US20100975484 20101222
US20100975463 20101222 US20100975482 20101222 US20100975459 20101222
US20100975487 20101222 US20100975443 20101222 US20100975450 20101222
US20100975452 20101222 US20100982001 20101230 US20100981950 20101230
US20100981982 20101230 US20100981960 20101230 US20110053615 20110322
EP20110835114 20111020 WO2011US56997 20111020 US20120352362 20120118
WO2013US21803 20130117 US20130941816 20130715 US20130944458 20130717
JP20150122040 20150617 JP20160164614 20160825

Probable Assignee: EASTMAN CHEMICAL CO

Assignee(s): (std): ANDERSON CHRIS DELBERT ; CLARK MARK DWIGHT ; CRAIN ALLEN L ; CRAIN ALLEN LYNN ; EASTMAN CHEM CO ; GEORGE SCOTT E ; GUPTA RAKESH K ; FLEENOR CORALIE M ; HAILE WILLIAM ALSTON ; HALE WESLEY RAYMOND ; JENKINS WAYLON LEWELLYN ; HAILE WILLIAM A ; HALE WESLEY R ; JENKINS WAYLON L ; KLOSIEWICZ DANIEL W ; SEO KAB S ; GUPTA RAKESH KUMAR ; SEO KAB SIK ; KLOSIEWICZ DANIEL WILLIAM ; MITCHELL MELVIN GLENN ; GEORGE SCOTT ELLERY ; EASTMAN CHEMICAL CO ; FLEENOR CORALIE MCKENNA

Assignee(s): EASTMAN CHEMICAL CO KINGSFORT ; EASTMAN CHEMICAL CO ; EASTMAN CHEMICAL COMPANY ; EAST CHEMICAL CO

Inventor(s): (std): HAILE WILLIAM ; HAILE WILLIAM A ; HAILE WILLIAM ALSTON ; HALE WESLEY ; HALE WESLEY R ; HALE WESLEY RAYMOND ; JENKINS WAYLON ; JENKINS WAYLON L ; JENKINS WAYLON LEWELLYN ; DANIEL WILLIAM KLOSIEWICZ ; ELLERY GEORGE SCOTT ; FLEENOR CORALIE MC KENNA ; GEORGE SCOTT ; GEORGE SCOTT E ; GEORGE SCOTT ELLERY ; KUMAR GUPTA RAKESH ; LYNN CRAIN ALLEN ; MARK DWIGHT CLARK ; RAKESH KUMAR GUPTA ; SCOTT ELLERY GEORGE ; SIK SEO KAB ; WILLIAM KLOSIEWICZ DANIEL ; MCKENNA FLEENOR CORALIE ; MELVIN GLENN MITCHELL ; MITCHELL MELVIN GLENN ; CHRIS DELBERT ANDERSON ; WOLFE AMBER LAYNE ; SEO KAB SIK ; MITCHELL PAULA HINES ; MITCHELL MARVIN LYNN ; KLOSIEWICZ DANIEL WILLIAM ; GUPTA RAKESH KUMAR ; FLEENOR CORALIE MCKENNA ; CRAIN ALLEN LYNN ; CLARK MARK DWIGHT ; ANDERSON CHRIS DELBERT ; MITCHELL MELVIN GLEN ; SEO KAB S ; KLOSIEWICZ DANIEL W ; GUPTA RAKESH K ; GLENN MITCHELL MELVIN ; FLEENOR CORALIE M ; CROSIEWICZ DANIEL WILLIAM ; CRAIN ALLEN LIN ; CRAIN ALLEN L ; MITCHELL MELVIN ; KLOSIEWICZ DANIEL ; GUPTA RAKESH ; KLOSIEWICZ DANIEL WILLIAM

Inventor(s): DANIEL WILLIAM KLOSIEWICZ ; ALLEN LYNN CRAIN ; MELVIN GLEN MITCHELL ; MITCHELL PAULA HINES PARKER ; CORALIE MCKENNA FLEENOR ; MITCHELL MELVIN GLENN PENROSE ; PAULA HINES MITCHELL ; SEO KAB ; MITCHELL MARVIN LYNN PARKER ; FLEENOR CORALIE ; CRAIN ALLEN ; CLARK MARK DWIGHT KINGSFORT ; ANDERSON CHRIS DELBERT PERRYSBURG ; AMBER LAYNE WOLFE ; WOLFE AMBER LAYNE LANDRUM ; MARVIN LYNN MITCHELL ; GUPTA RAKESH KUMAR KINGSFORT ; KAB SIK SEO ; KLOSIEWICZ DANIEL WILLIAM KINGSFORT

Agent(s): LEDERER AND KELLER PATENTANWALTE PARTNERSCHAFT MBB ; RICKER MATHIAS ET AL ; TOSTMANN HOLGER CARL ; BEST MICHAEL ET AL ; BEST MICHAEL ; BROWN FRASER GREGORY JAMES ; DE ELZABURU ALBERTO ; AOKI ATSUSHI ; ISHIDA TAKASHI ; KOGA TETSUJI ; YAMAMOTO OSAMU ; TAKEUCHI SHIGEO ; ONO SHINJIRO ; KOBAYASHI YASUSHI ; HOSHINO OSAMU ; TOMITA HIROYUKI ; ERIC D MIDDLEMAS EASTMAN CHEMICAL CO ; POLLY C OWEN EASTMAN CHEMICAL CO ; POLLY C OWEN ; POLLY C ; BERNARD J ; TAMMYE L ; TAMMYE ; OWEN POLLY C

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 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 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 YU ZA ZM ZW

2) Family number: 41770093 (US2008098780A)

© PatBase

Title: SYSTEMS AND METHODS FOR TREATING SOLID WASTE

Abstract: A system and method for treating solid waste includes a trommel screen and a composting unit. The trommel screen includes an inlet hopper and a rotating screening drum, which can be equipped with internal channeling members and bag rippers with blades. A composting and/or dewatering apparatus has a vessel portion, a cover portion and an internal auger. The apparatus includes a plurality of openings along its vessel portion to permit a volume of liquid from within the composting apparatus to be eliminated. The composting/dewatering unit can also include a sleeve member along the outside of the vessel portion. In one embodiment, waste items passing through the screening drum of the trommel screen are conveyed into the composting unit. In another embodiment, the discharged liquid is collected in one or more liquid collection structures and is conveyed to a clarifier tank.

Classifications:

International (IPC 8-9): C05F11/08 C05F17/02

C12M1/02 (Advanced/Invention);

C05F11/00 C05F17/02 C12M1/02 (Core/Invention)

CPC: Y02W10/37 Y02W30/43 C02F11/121 B01F7/241 B01F7/242

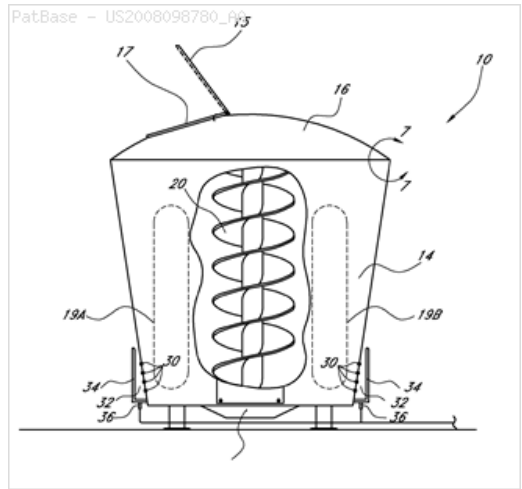
C02F11/16 C02F2203/008 C05F17/02 C05F17/0211 C05F17/0258

F26B11/14 F26B17/20 Y02P20/145

European: B01F7/24B B01F7/24C C02F11/12C C05F17/02 C05F17/02D

C05F17/02K F26B11/14 F26B17/20 M02F11/16 M02F203/00M

US: 435/290.2 435/290.200 71/9



Family:

Publication number	Publication date	Application number	Application date
US2008098780 AA	20080501	US20070876672	20071022
WO08051876 A2	20080502	WO2007US82017	20071019
WO08051876 A3	20081120	WO2007US82017	20071019

Priority:

US20060853361P 20061020 US20070888498P 20070206 US20070916793P 20070508
 US20070876672 20071022

Probable Assignee: FED DISPOSAL SERVICES INC

Assignee(s): (std): FED DISPOSAL SERVICES INC ; SHUBIN DON

Assignee(s): FEDERAL DISPOSAL SERVICES INC

Inventor(s): (std): SHUBIN DON

Agent(s): KNOBBE MARTENS OLSON AND BEAR LLP; LEE SABING H

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 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

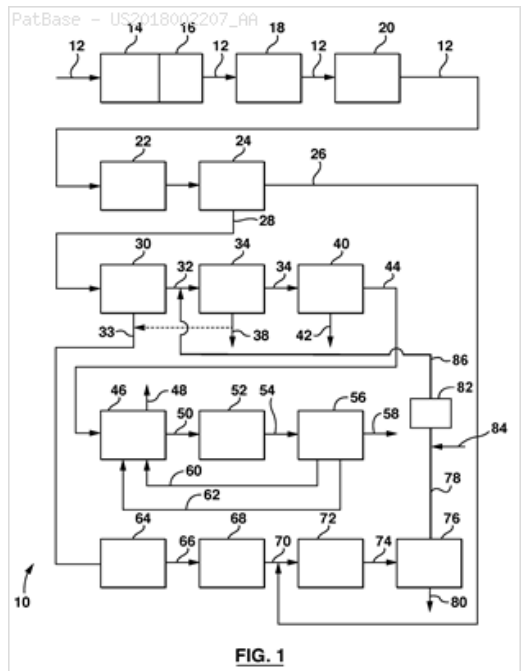
3) Family number: 67013293 (US2018002207A) © PatBase

Title: SOLID WASTE PROCESSING WITH DIVERSION OF CELLULOSIC WASTE

Abstract: Waste, such as municipal solid waste (MSF), is separated into a wet fraction and rejects. For example, the waste may be separated in a press. A cellulosic fraction is separated from the rejects. In a wet method the rejects are treated in a pulper to extract the cellulosic fraction. In a dry method, the rejects are treated with an optical sorter. The cellulosic fraction is treated in an anaerobic digester, optionally with the wet fraction.

Classifications:

International (IPC 8-9): A62D3/40 B07C5/342 B09B B09B3/00 C02F C02F11/04 C02F3/28 C10B53/07 C10B57/14 C12M1/00 D21B1/02 D21B1/32 D21B1/34 D21C5/00 D21H11/14 (Advanced/Invention)
CPC: C02F3/2893 D21H11/14 D21B1/026 D21C5/005 D21C5/00 C02F11/04 C02F11/10 C02F11/121 D21B1/345 D21B1/32 Y02W30/646 B09B3/0083 C10B53/07 B07C5/363 C12M43/00 B07C5/342 C10B57/14 B09B5/00 C10L3/08 C10L5/44 C10L5/46 C10L9/08 C10L2290/02 C10L2290/10 C10L2290/26 C10L2290/30 C10L2290/546 C12P5/023 B03B9/06 B09B3/00 F23G5/027
US: 162/201



Family:

Publication number	Publication date	Application number	Application date
CA3017033 AA	20180907	CA20173017033	20170314
EP3429701 A1	20190123	EP20170765614	20170314
US2018002207 AA	20180104	US20170705704	20170915
US2018195236 AA	20180712	US20180867224	20180110
US2019091739 AA	20190328	US20170083000	20170314
WO17156629 A1	20170921	WO2017CA50336	20170314
WO18129616 A1	20180719	WO2018CA50019	20180110
ZA201602521 A	20180725	ZA20160002521	20160413

Priority:

US20160310341P 20160318 US20170445347P 20170112 US20170083000 20170314
WO2017CA50336 20170314 US20170705704 20170915 US20180867224 20180110

Probable Assignee: ANAERGIA INC

Assignee(s): (std): ANAERGIA INC

Assignee(s): BENEDEK ANDREW ; JOSSE JUAN CARLOS

Inventor(s): (std): BENEDEK ANDREW ; JOSSE JUAN CARLOS ; OUELLET HANS FREDERICK ; SCHERSON YANIV D

Inventor(s): JOOSE JUAN CARLOS

Agent(s): BORDEN LADNER GERVAIS LLP; BSB PATENTANWALTE SCHUETTE AND ENGELN PARTNERSCHAFT MBB;
PUNDSACK SCOTT R

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

4) Family number: 48201338 (US2012122194A)

© PatBase

Title: METHOD FOR THE TOTAL GASIFICATION OF GARBAGE OR WASTE

Abstract: A method for treating garbage or waste in which the garbage or refuse is subjected to at least one compression step (14) under conditions enabling the separation thereof into a putrescible fraction (15) in the form of a moist pulp, and into a dry fraction (16) with a relative moisture of less than 20 percent, then the putrescible fraction is subjected to a treatment (17) by anaerobic fermentation producing a biogas (18), characterized in that the resulting dry fraction (16) is subjected to an endothermic gasification treatment (19).

Classifications:

International (IPC 8-9): B03B9/06 B09B3/00 C02F3/28

C10J3/00 (Advanced/Invention)

CPC: B09B3/00 C10J3/00 C10J2300/0903 C10J2300/0946

C10J2300/0956 C10J2300/1284 C10J2300/1606 C10J2300/1681

C10J2300/1693 F23G2201/20 F23G2206/10 F23G2209/262

F23G2900/50208 F23G2900/50212 F23G2900/50214 Y02E50/343

European: B09B3/00 C10J3/00 M10J300/09B M10J300/09D14

M10J300/09F2 M10J300/12V M10J300/16B2 M10J300/16P M10J300/16V

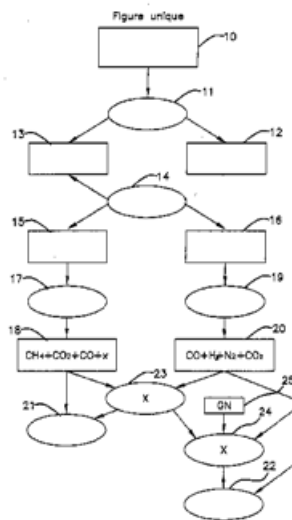
R23G201/20 R23G206/10 R23G209/262 R23G900/50208 R23G900/50212

R23G900/50214 Y02E50/34B

US: 435/262 435/262P

PatBase - US2012122194_AA

Patent Application Publication May 17, 2012 US 2012/0122194 A1

**Family:**

Publication number	Publication date	Application number	Application date
CA2768526 AA	20110117	CA20092768526	20090720
EP2456579 A1	20120530	EP20090736611	20090720
US2012122194 AA	20120517	US20090386123	20090720
WO11010002 A1	20110127	WO2009FR51441	20090720

Priority:

WO2009FR51441 20090720

Probable Assignee: DMS

Assignee(s): (std): D M S ; DUMONS PIERRE
Assignee(s): DMS
Inventor(s): (std): DUMONS PIERRE
Agent(s): GOUDREAU GAGE DUBUC; CABINET BARRE LAFORGUE AND ASSOCIES
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 TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

5) Family number: 29326438 (US2003198826A)

© PatBase

Title: MOISTURE RESISTANT, REPULPABLE PAPER PRODUCTS AND METHOD OF MAKING SAME

Abstract: Hydrogenated triglycerides having melting points above 50 degrees centigrade are substituted for paraffin as a coating material for the surface of paper products and the resulting paper products have improved wet strength and moisture resistance in addition to being repulpable thereby providing a distinct environmental advantage over paraffin coated products.

Classifications:

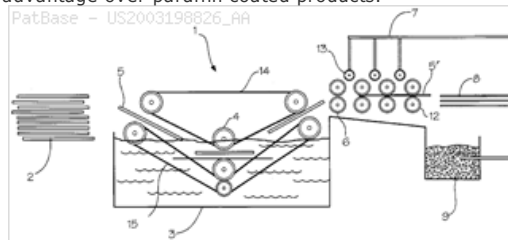
International (IPC 8-9): B32B23/04 D21H21/20 (Advanced/Invention);
D21H19/14 (Advanced/Non-invention);
B32B23/00 D21H21/14 (Core/Invention);
D21H19/00 (Core/Non-invention)

International (IPC 1-7): B05D1/02 B05D1/30 B32B29/00 B32B9/06
C09D4/00 D21C11/00 D21C3/20

CPC: Y10T428/1303 D21H21/20 D21H19/14 Y10T428/31808
Y10T428/31848 Y10T428/31851 Y10T428/31986 Y10T428/31993

European: D21H21/20 N21H19/14

US: 156/325 156/328 156/332 156/333 427/324 427/326 427/334
427/339 427/415 427/416 427/420 427/420S 427/422 427/422S
427/427.1 427/427.100S 428/34.2 428/486 428/486P 428/498 428/498S 428/499 428/499S 428/536 428/537.5 428/537.500P



Family:

Publication number	Publication date	Application number	Application date
AU2003228467 AA	20031103	AU20030228467	20030408
US2003198826 AA	20031023	US20030409238	20030408
US2005123780 AA	20050609	US20050032477	20050110
US6846573 BB	20050125	US20030409238	20030408
US6846573 C1	20140421	US20030409238	20030408
US7244509 BA	20070717	US20050041573	20050124
WO03089527 A1	20031030	WO2003US10739	20030408

Priority:

US20020373952P 20020419 US20030409238 20030408 WO2003US10739 20030408
US20050032477 20050110 US20050041573 20050124

Probable Assignee: AKZO NOBEL NV

Assignee(s): (std): EVCO RES LLC ; EVCO RESEARCH LLC ; SEYDEL SCOTT O

Assignee(s): SEYDEL COMPANIES INC ; AKZO NOBEL CHEMICALS INC ; AKZO NOBEL CHEMICALS LLC ; AKZO NOBEL NV

Inventor(s): (std): SCOTT O SEYDEL ; SEYDEL SCOTT O

Inventor(s): SEYDEL SCOTT

Agent(s): MCNAIR LAW FIRM PA; WILLIAM D

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH 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 SC SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

6) Family number: 40833438 (WO07132080A1)

© PatBase

Title: FILTER, METHOD FOR THE PRODUCTION THEREOF, AND INSTALLATION FOR TREATING EFFLUENTS USING SUCH A FILTER

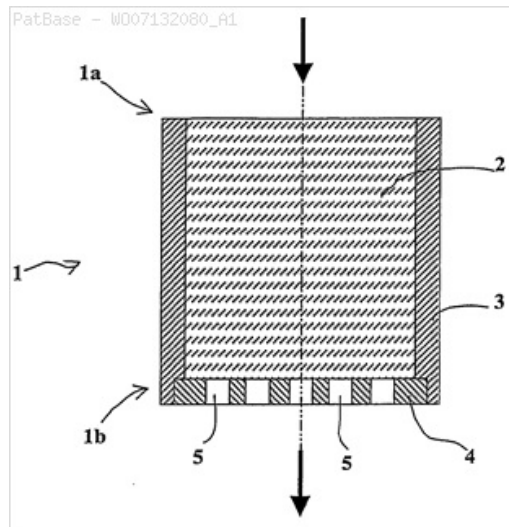
Abstract: The invention relates to a filter (1), especially for organic effluents, said filter being characterised in that it comprises a least one layer (2) of a compacted fibrous organic material of plant or animal origin inserted into a sheath (3) consisting of a biodegradable material. Said filter can be used in the production of installations for treating organic effluents.

Classifications:

International (IPC 8-9): B01D39/06 B01D39/16 (Advanced/Invention);
B01D39/02 B01D39/16 (Core/Invention)

CPC: B01D39/04 B01D2239/0266

European: B01D39/04 L01D239/02M



Family:

Publication number	Publication date	Application number	Application date
FR2900840 A1	20071116	FR20060004278	20060515
FR2900840 B1	20081010	FR20060004278	20060515
W007132080 A1	20071122	WO2007FR00782	20070509

Priority:

FR20060004278 20060515

Probable Assignee: GIAT IND SA

Assignee(s): (std): DELAINE PATRICK ; GIAT IND SA ; NEXTER MUNITIONS

Assignee(s): GIAT INDUSTRIES SOCIETE ANONYME ; GIAT IND

Inventor(s): (std): DELAINE PATRICK

Inventor(s): PATRICK DELAINE

Agent(s): CABINET CELANIE

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 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

7) Family number: 43872443 (US2009260288A)

© PatBase

Title: MANUFACTURE OF GAS FROM HYDROGEN-BEARING STARTING MATERIALS.

Abstract: In a process for manufacturing gas from hydrogen-bearing starting materials-such as those also containing carbon, carbonaceous materials, hydrocarbons or other hydrogen-bearing materials-the starting materials are fed into a 3-dimentional plasma region to produce two output streams: a gas substantially containing hydrogen, and a by-products stream. Apparatus and a method are disclosed for generating gas which is substantially hydrogen gas (but may also contain other gaseous species) from the essentially complete dissociation of the starting materials in a plasma operating under pyrolytic conditions.1 Starting materials are fed into a plasma reactor. These starting materials are heated by one or more disclosed plasma sheets and/or plasma arrays in a reactor. The manufactured gas is vented from the reactor through an outlet. By-products are also removed from the reactor after being processed to remove the manufactured gas constituents. In addition, organic and inorganic matter that is input to the plasma is rendered ecologically and biologically safe and the by-products are extracted from the reactor for disposal (e.g., carbon sequestering) or to be recycled into various uses (e.g., ceramic tiles, carbon black, carbon nanotubes,2 pyrolytic graphite, for insulation and road paving materials).

Classifications:

International (IPC 8-9): C10J3/00 C10J3/08

C10J3/26 (Advanced/Invention);

C10J3/00 (Core/Invention)

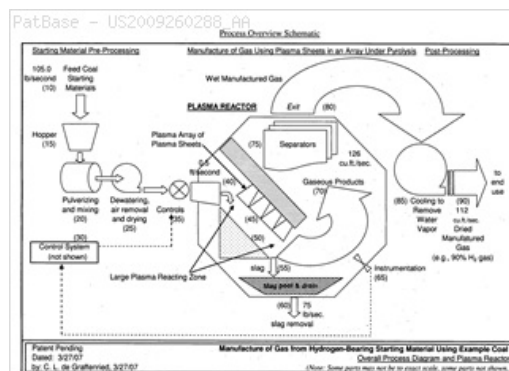
CPC: C10J3/08 C10J3/26 C10J2300/0903 C10J2300/0906 C10J2300/093

C10J2300/1238 Y02E20/18

European: C10J3/08 C10J3/26 M10J300/09B M10J300/09B2

M10J300/09D6 M10J300/12H2 T05K999/99 Y02E20/18

US: 1/1 48/113 48/113S 48/197FM



Family:

Publication number	Publication date	Application number	Application date
US2009260288 AA	20091022	US20080106488	20080421

Priority:

US20080106488 20080421

Probable Assignee: DE GRAFFENRIED SR CHRISTOPHER LAWRENCE

Assignee(s): (std): DE GRAFFENRIED SR CHRISTOPHER ; DE GRAFFENRIED SR CHRISTOPHER LAWRENCE

Inventor(s): (std): DE GRAFFENRIED SR CHRISTOPHER LAWRENCE ; DE GRAFFENRIED SR CHRISTOPHER

Agent(s): CHRIS DE GRAFFENRIED; GEARHART LAW LLC

8) Family number: 60906508 (US2017158574A)

© PatBase

Title: METHOD AND INSTALLATION FOR TREATING A WASTE MIXTURE, INCLUDING SEPARATION AND COMPOSTING OF SAID MIXTURE

Abstract: Wastes sorting.

Classifications:

International (IPC 8-9): B03B9/06 B03C1/23 B07B1/24 B07B1/46

B07B13/04 B07B13/16 B09B3/00 C05F17/00 C05F17/02

C05F9/00 (Advanced/Invention);

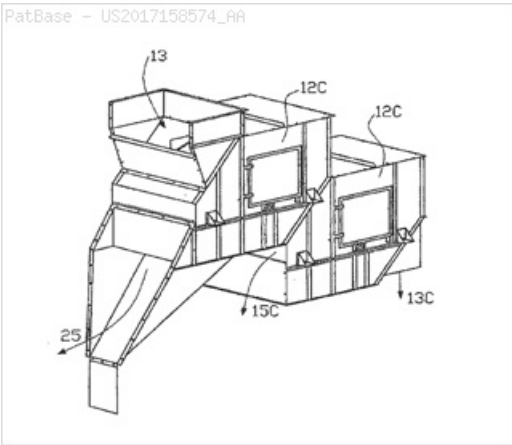
B09B3/00 C05F17/00 (Core/Invention)

CPC: C05F17/0027 C05F17/0045 C05F17/0276 B07B1/18 B07B1/469

B07B13/16 Y02W30/43 Y02P20/145 Y02W30/523 C05F17/0258

C05F17/00 C05F9/00 B03C1/23 B03B9/06 B07B1/24 B09B3/00

Y02A40/214



Family:

Publication number	Publication date	Application number	Application date
AU2015263137 AA	20170105	AU20150263137	20150522
AU2015263137 AA	20151126	AU20150263137	20150522
BR112016027407 A2	20170815	BR20161127407	20150522
CA2949917 AA	20161122	CA20152949917	20150522
CO20160005456 A2	20170510	CO20160005456	20161216
CU20160175 A7	20170605	CU20160000175	20150522
DOP2016000303 A	20170215	DO20160000303	20161122
EP3145898 A1	20170329	EP20150732793	20150522
FR3021238 A1	20151127	FR20140054708	20140523
IN201627042659 A	20170908	IN201627042659	20161214
KR20170010837 A	20170201	KR20167036149	20150522
MA39544 A1	20170630	MA20150039544	20150522
MX2016015321 A1	20170510	MX20160015321	20150522
PH2016502328 A	20170206	PH20160502328	20161122
RU2016148700 A	20180626	RU20160148700	20150522
RU2016148700 A3	20181003	RU20160148700	20150522
SG10201810424V A1	20181228	SG20181010424	20150522
SG11201609808X A1	20161229	SG20161109808	20150522
TH166259 A	20170817	TH20161006812	20150522
US2017158574 AA	20170608	US20150313425	20150522
WO15177485 A1	20151126	WO2015FR51370	20150522

Priority:

FR20140054708 20140523RU20160148700 20150522WO2015FR51370 20150522

RU20160148700 20155222

Probable Assignee: FINANCE DEV ENVIRONNEMENT CHARREYRE FIDEC

Assignee(s): (std): FINANCE DEV ENVIRONNEMENT CHARREYRE FIDEC ; FINANCE DEVELOPPEMENT ENVIRONNEMENT CHARREYRE FIDEC

Assignee(s): CHARREYRE FABIEN MICHEL ALAIN

Inventor(s): (std): CHARREYRE FABIEN MICHEL ALAIN ; FABIEN MICHEL ALAIN CHARREYRE ; CHARREYRE FABIEN

Inventor(s): FABIEN CHARREYRE ; MICHEL CHARREYRE ; ALAIN CHARREYRE

Agent(s): MICHAEL BUCK IP; BLAKE CASSELS AND GRAYDON LLP; ALVARO CORREA ORDONEZ; WEBER JEAN FRANCOIS; CABINET DIDIER MARTIN; VIERING JENTSCHURA AND PARTNER LLP; MARTIN DIDIER 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 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

Title: METHOD OF DISPOSAL FOR DISPERSIBLE COMPOSITIONS AND ARTICLES

Abstract: Method of disposing aqueous-alkali disposable articles is disclosed. The articles are made from films or non-woven webs or composites of films and webs where the film or non-woven web comprises a hydrolytically degradable polymer and preferably also comprises a water soluble polymer. Multilayer microfibers of at least one layer of a hydrolytically degradable polymer and at least one layer of a water soluble polymer are particularly disclosed. The articles have water resistance during preparation, storage, and use with mammals but are dispersible when submersed in water at conditions of elevated temperature, elevated pH, and during a single commercial laundry cycle. The articles solve both the problem of solid waste disposal prevalent with single use garments and the problem of repeated cleansing and recycling of multiple use garments. Contamination associated with the articles of the invention after their use will be disinfected during the commercial laundry cycle that is utilized to disperse the article.

Classifications:

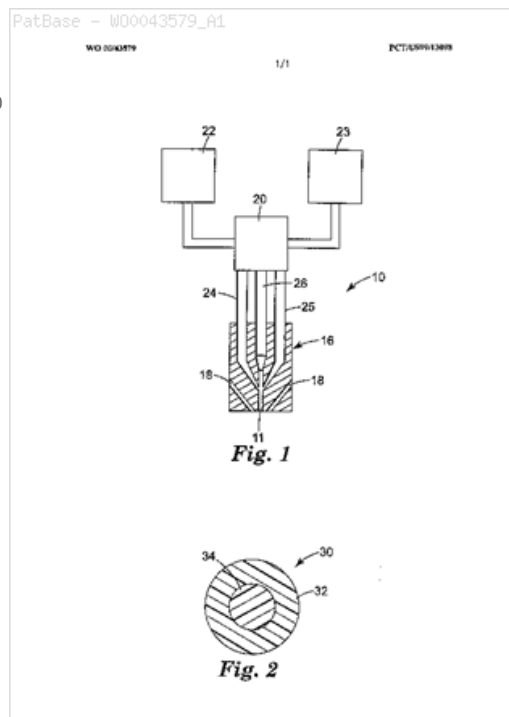
International (IPC 8-9): A41D31/00 A61F13/15 A61F13/49 A61F13/53 A61F13/551 A61F5/44 A61F5/445 A61L15/00 A61L15/26 A61L15/62 A61L17/00 A61L17/12 A61L17/14 A61L31/10 B09B3/00 B32B5/00 B32B5/26 D01F8/04 D01F8/10 D01F8/14 D04H1/42 D04H1/56 D04H13/00 D04H3/00 D04H3/16 (Advanced/Invention); A41D31/00 A61F13/15 A61F5/44 A61F5/445 A61L15/00 B32B5/00 D04H1/42 D04H3/16 (Advanced/Non-invention); A41D31/00 A61F13/15 A61L15/00 A61L15/16 B09B3/00 B32B5/00 B32B5/22 D01F8/04 D04H1/42 D04H1/56 D04H13/00 D04H3/16 (Core/Invention)

International (IPC 1-7): A41D31/00 A61F13/15 A61F13/46 A61F13/49 A61F13/551 A61F5/44 A61F5/445 A61L15/00 A61L17/00 B08B3/08 B32B27/00 B32B5/00 B32B5/26 B32B7/02 D01F8/04 D01F8/10 D01F8/14 D01F8/18 D04H1/00 D04H1/42 D04H1/56 D04H1/58 D04H13/00 D04H3/00 D04H3/16

CPC: Y10S428/903 Y10S428/913 Y10T428/2929 Y10T428/2913 D01F8/14 A61L15/26 A61L15/62 A61L17/12 A61L17/145 A61L31/10 B09B3/00 B09B3/0075 D01F8/04 Y10T442/614 Y10T442/622 Y10T442/641 Y10T442/68 Y10T442/2025 Y10T442/626 D04H1/56 D04H1/435 D04H1/4382

European: A61L15/26 A61L15/62 A61L17/12 A61L17/14C A61L31/10 B09B3/00 B09B3/00M D01F8/04 D01F8/14 D04H1/42 D04H1/56B D04H13/00B2

US: 134/34 134/42 264/103 264/172.14 264/555 423/658.5 428/219 428/284 428/286 428/288 428/296 428/297 428/298 428/364 428/373 428/903 428/913 442/340 442/347 442/351 442/364 442/400 442/62 604/364 8/137 8/141



Family:

Publication number	Publication date	Application number	Application date
AU199642404 A1	19960724	AU19960042404	19951117
AU199945591 A1	20000807	AU19990045591	19990610
AU199945591 A5	20000807	AU19990045591	19990610
AU209945591 A1	20000807	AU19990045591	19990610
AU693978 B2	19980709	AU19960042404	19951117
AU752662 B2	20020926	AU19990045591	19990610
CA2206921 AA	19970604	CA19952206921	19951117
CA2368511 AA	20010716	CA19992368511	19990610
CN1070942 C	20010912	CN19951097236	19951117
CN1171825 A	19980128	CN19951097236	19951117
CN1338010 A	20020227	CN1998016379	19990610
DE69521342 D1	20010719	DE19956021342	19951117
DE69521342 T2	20020228	DE19956021342T	19951117
EP0800595 A1	19971015	EP19950940755	19951117
EP0800595 B1	20010613	EP19950940755	19951117
EP1161578 A1	20011212	EP19990928547	19990610
JP10511748 T2	19981110	JP19960520974T	19951117
JP2002535500 T2	20021022	JP20000594980T	19990610
JP3790802 B2	20060628	JP19960520974T	19951117
US5472518 A	19951205	US19940367026	19941230
US5508101 A	19960416	US19950454555	19950530
US5567510 A	19961022	US19950452795	19950530
US5630972 A	19970520	US19950453245	19950530
US5763065 A	19980609	US19970780606	19970108
US6579814 BA	20030617	US19990236864	19990125
WO0043579 A1	20000727	WO1999US13098	19990610
WO9621057 A1	19960711	WO1995US15073	19951117
ZA9510502 A	19970611	ZA19950010502	19951211

Priority:

US19940367026 19941230 US19950452795 19950530 US19950454555 19950530
 US19950453245 19950530 US19950452922 19950530 WO1995US15073 19951117

Probable Assignee: 3M CO

Assignee(s): (std): 3M CO ; 3M INNOVATIVE PROPERTIES CO ; 3M INNOVATIVE PROPERTIES COMAP ; 3M INNOVATIVE PROPERTIES COMAPNY ; 3M INNOVATIVE PROPERTIES COMPANY ; MINNESOTA MINING AND MFG ; MINNESOTA MINING AND MFG CO

Assignee(s): MINNESOTA MINING AND MANUFACTURING CO ; LINDQUIST TIMOTHY J ; BRUNO JOHN E ; RUTHERFORD DENISE R ; PATNODE GREGG A ; SCHLEI DIETMAR ; MINNESOTA MINING AND MFG CO SAINT PAUL ; SCHLEI DIETMER ; SANDISON WALTER B ; MINNESOTA MINING AND MANUFACTURING COMPANY

Inventor(s): (std): D R RUTHERFORD ; DENISE R RUTHERFORD ; DENISE ROBIN RUTHERFORD ; DIETMAR SCHLEI ; DIETMER SCHLEI ; DR BUTHRFORD ; DR RUTHERFORD ; G A PATNODE ; GA PATNODE ; GREGG A PATNODE ; GREGG ANDRE PATNODE ; J E BRUNO ; JE BRUNO ; JOHN E BRUNO ; JOHN EDWARD BRUNO ; LINDQUIST TIMOTHY J ; LOINDQUIST T J ; PATNODE GREGG A ; RUTHERFORD DENISE R ; SCHLEI DIETMER ; TIMOTHY J LINDQUIST ; TJ LOINDQUIST ; WALTER B SANDISON ; WALTER BRUCE SANDISON ; SCHLEI DIETMAR ; SANDISON WALTER BRUCE ; SANDISON WALTER B ; SANDISON B ; RUTHERFORD R ; RUTHERFORD DENISE ROBIN ; PATNODE GREGG ANDRE ; PATNODE A ; BRUNO JOHN EDWARD ; BRUNO JOHN E ; BRUNO E ; RUTHERFORD D R ; PATNODE G A ; BRUNO J E ; BUTHRFORD D R

Inventor(s): D R BUTHRFORD ; T J LOINDQUIST

Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD; DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; SMART AND BIGGAR; NISHIYAMA MASAYA; ISHIDA TAKASHI; TSURUTA JUNICHI; HIGUCHI SOTOJI; FUKUMOTO TSUMORU

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 UZ VN YU ZA ZW

10) Family number: 23916689 (US6328234B)

© PatBase

Title: Apparatus and method for recycling solid waste

Abstract: The invention relates to apparatus and method for the treatment of recyclable materials from solid waste. The material is introduced into a pressure vessel where it is heated and shredded. Fluid jets within the vessel produce a cutting/agitating action on the waste material as it flows through the vessel.

Classifications:

International (IPC 8-9): B02C17/00 B02C19/06

B02C23/24 (Advanced/Invention);

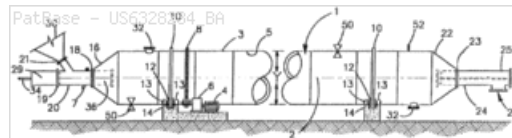
B02C17/00 B02C19/06 B02C23/18 (Core/Invention)

International (IPC 1-7): B02C19/18

CPC: B02C17/007 B02C19/06 B02C23/24

European: B02C17/00R B02C19/06 B02C23/24

US: 241/1 241/23 241/24.12 241/299 241/301



Family:

Publication number	Publication date	Application number	Application date
US6328234 BA	20011211	US20000506985	20000218
WO02068123 A1	20020906	WO2001US05584	20010221

Priority:

US20000506985 20000218 WO2001US05584 20010221

Probable Assignee: WET SYSTEMS INC

Assignee(s): (std): GEISS HARRY J ; SAUCIER KENNETH C

Assignee(s): UCIER KENNETH C SA ; WASTE ELUTRIATION TECHNOLOGIES LTD ; WET SYSTEMS INC ; WSI MANAGEMENT LLC ; ADS POWER RESOURCE INC

Inventor(s): (std): GEISS HARRY J ; SAUCIER KENNETH C

Designated states: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

11) Family number: 60951765 (US2017151585A)

© PatBase

Title: MACHINE FOR SORTING A MIXTURE OF WASTE, AND ASSOCIATED SORTING METHOD

Abstract: The invention concerns a rotary machine (1) for sorting a mixture of wastes (2), said sorting machine (1) being characterized in that it comprises at least:

- a first trammel section (3), provided with a first separation wall (5) extending over a first length (L1) allowing separating the mixture of wastes (2) into a first fraction of wastes (13) getting through said first separation wall (5) and into a residual second fraction of wastes (14), and
- a second trammel section (4), provided with a second separation wall (6) extending over a second length (L2) smaller than the first length (L1), and allowing separating the residual second fraction of wastes (14) into a subfraction of small-sized wastes (15) getting through said second separation wall (6) and into a residual subfraction of large-sized wastes (16).
- Wastes sorting.

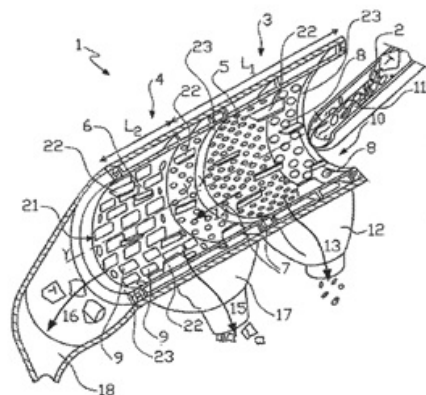
Classifications:

International (IPC 8-9): B07B1/22 B07B1/24 B07B13/04

B09B3/00 (Advanced/Invention);

B07B1/22 (Core/Invention)

CPC: B07B1/24 B07B1/469 B07B1/22 B07B13/04

**Family:**

Publication number	Publication date	Application number	Application date
AU2015279024 AA	20170105	AU20150279024	20150522
AU2015279024 AA	20151230	AU20150279024	20150522
BR112016027412 A2	20170815	BR20161127412	20150522
CA2949919 AA	20161122	CA20152949919	20150522
CO20160005463 A2	20170510	CO20160005463	20161216
DOP2016000305 A	20170215	DO20160000305	20161122
EP3145644 A1	20170329	EP20150734425	20150522
FR3021235 A1	20151127	FR20140054709	20140523
IN201627042660 A	20170908	IN201627042660	20161214
KR20170008305 A	20170123	KR20167036154	20150522
MA39546 A1	20180330	MA20150039546	20150522
MX2016015320 A1	20170509	MX20160015320	20150522
PH2016502326 A	20170206	PH20160502326	20161122
RU2016148697 A	20180626	RU20160148697	20150522
RU2016148697 A3	20181221	RU20160148697	20150522
SG11201609833Q A1	20161229	SG20161109833	20150522
TH166261 A	20170817	TH20161006950	20150522
US2017151585 AA	20170601	US20150313459	20150522
US10086406 BB	20181002	US20150313459	20150522
WO15197928 A1	20151230	WO2015FR51372	20150522

Priority:

FR20140054709 20140523 RU20160148697 20150522 WO2015FR51372 20150522
RU20160148697 20155222

Probable Assignee: FINANCE DEVELOPPEMENT ENVIRONNEMENT CHARREYRE FIDEC

Assignee(s): (std): FINANCE DEV ENVIRONNEMENT CHARREYRE FIDEC ; FINANCE DEVELOPMENT ENV CHARREYRE FIDEC

Assignee(s): FINANCE DEVELOPMENT ENVIRONNEMENT CHARREYRE FIDEC ; FINANCE DEVELOPPEMENT ENVIRONNEMENT CHARREYRE FIDEC ; FINANCE DEVELOPPEMENT ENVIRONNEMENT CHARREYRE FIDEC ; CHARREYRE FABIEN MICHEL ALAIN

Inventor(s): (std): FABIEN MICHEL ALAIN CHARREYRE ; CHARREYRE FABIEN MICHEL ALAIN ; CHARREYRE FABIEN

Inventor(s): FABIEN CHARREYRE ; MICHEL CHARREYRE ; ALAIN CHARREYRE

Agent(s): MICHAEL BUCK IP; BLAKE CASSELS AND GRAYDON LLP; ALVARO CORREA ORDONEZ; WEBER JEAN FRANCOIS; CABINET DIDIER MARTIN; NATH GOLDBERG AND MEYER; MEYER JERALD L; MARTIN DIDIER 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 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

12) Family number: 47108842 (EP2241499A1)

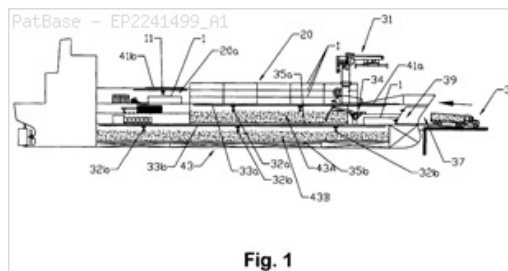
© PatBase

Title: Marine vessel based system and method of managing municipal solid waste

Abstract: A marine vessel provided with the appropriate layout and equipment for the reception, segregation and treatment of municipal solid waste so as to deliver discrete quantities of various recyclable materials, along with a mainstream product of dried, biologically stabilised, waste. The vessel is provided with an upper deck whereupon containers (1) which can be of any type (C1-C5) are parked along a plurality of rows and columns. Whilst containers (C3,C4,C5) loaded with used oils, batteries and medical hazardous waste and containers (C2) loaded with used appliances remain onto the upper deck, containers (C1,C2) loaded with MMSW, SMSW, green waste, sewage sludge, bulky waste and tyres are selectively rearwardly led at a plurality of waste treatment decks (D1-D3) underlying the upper deck and/or into a biotreatment area (43). Following segregation, shredding, baling operations, packaged recyclable paper, plastic and aluminium is loaded back into containers (C1), whilst collected recyclable glass and shredded tyres and bulky waste is loaded into containers (C2) and the dried, biologically stabilised, product extracted from the biotreatment area (43) is loaded into containers (C1), all these containers being transferred and parked onto the upper deck, ready for delivery at a final destination.

Classifications:

International (IPC 8-9): B63B25/00 B63B35/44 (Advanced/Invention)
CPC: B63B11/00 B63B25/004 B63B35/44 B63B2035/4473
European: B63B25/00B2 B63B35/44 L63B11/00 L63B35/44F



Family:

Publication number	Publication date	Application number	Application date
DE602009009263 D1	20121025	DE200960009263T	20090415
EP2241499 A1	20101020	EP20090386011	20090415
EP2241499 B1	20120829	EP20090386011	20090415

Priority:

EP20090386011 20090415

Probable Assignee: HELLENIC ENVIRONMENTAL SYSTEMS

Assignee(s): (std): HELLENIC ENVIRONMENTAL SYSTEMS ; HELLENIC ENVIRONMENTAL SYSTEMS INDUSTRY S A

Assignee(s): HELLENIC ENVIRONMENTAL SYSTEMS IND SA

Inventor(s): (std): ANDRIANOPOULOS ATHANASIOS ; FOUNTOULAKIS MICHAEL ; MANIOS THRASSYVOULOS

Inventor(s): MANIOS THRASSYVOULOS 714 09 HERAKLION

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 MT NL NO PL PT RO RS SE SI SK TR

13) Family number: 48164884 (US2012121477A)

© PatBase

Title: THERMAL GASIFICATION REACTOR FOR PRODUCING HEAT ENERGY FROM WASTE

Abstract: A thermal reactor for producing usable heat energy by destroying waste including a vessel wherein organic waste upon entering said vessel gasifies as it falls onto a carbon bed and is transformed into a synthesis gas with high heat and kinetic energy that can be harnessed to produce electricity. Inorganic waste upon entering melts as it falls onto the carbon bed and exits via slag ports to form an inert slag. Because there is no oxygen present in the gasification zone, the waste is not combusted and neither furan or dioxin are formed. The waste includes either prepared refuse derived fuel (RDF) or unprepared raw waste or a combination thereof.

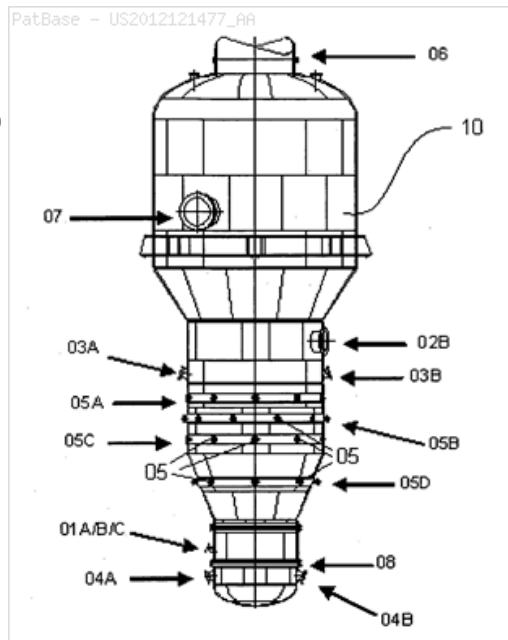
Classifications:

International (IPC 8-9): A62D3/20 A62D3/40 B01J19/00 B01J7/00 B09B3/00 C02F9/10 C10B1/00 C10B1/02 C10B21/00 C10J3/02 C10J3/06 C10J3/08 C10J3/18 C10J3/20 C10J3/46 C10J3/72 C10K1/00 C10K1/02 C10K1/08 C10K1/12 C10K1/32 F01D13/00 F01D15/10 F01K23/06 F23G5/00 F23G5/027 F23G5/033 F23G5/04 F23G5/08 F23G5/46 F23G7/00 F23G7/12 F23J15/02 (Advanced/Invention)

CPC: C10J2200/158 C10J2300/0906 C10J2300/1621 C10J2300/1675 C10K1/004 C10K1/122 Y02E20/18 C10J2300/0956 C10J2300/1653 C10J2300/1671 C10K1/024 C10K1/08 C10K1/32 F01K23/067 F23G5/033 F23G5/04 F23G2900/50209 F23G5/027 F23J15/02 F01D15/10 F01D13/00 C10J3/18 C10J3/08 C10J3/20 C10J2300/0943 C10J2300/0946 C10J2300/0996 C10J2300/1238 F23G5/0276 F23G5/085 F23G5/46 F23G7/003 F23G7/12 F23G2202/20 F23G2203/403 F23G2206/203 F23G2207/30 F23G2207/60 F23G2209/281 Y02E20/12 Y02E20/16 Y02P20/129 Y02E50/12 Y02E50/32

European: C10J3/00 C10K1/02D C10K1/08 C10K1/32 F01K23/06G F23G5/027C F23G5/033 F23G5/04 F23G5/08C F23G5/46 F23G7/00G F23G7/12 R23G202/20 R23G203/403 R23G206/203 R23G207/30 R23G207/60 R23G209/281 Y02E20/12

US: 110/203 110/216 110/221 110/229 110/230 110/346 290/52 422/184.1 422/184.100P



Family:

Publication number	Publication date	Application number	Application date
EP2571962 A1	20130327	EP20100851847	20100813
EP2571962 A4	20140115	EP20100851847	20100813
EP2571962 B1	20181010	EP20100851847	20100813
MY151894 A	20140714	MY20090003009	20090717
MY163127 A	20170815	MY20120000178	20100519
US2012121477 AA	20120517	US20100384573	20100519
US2013300121 AA	20131114	US20100698254	20100813
US9568189 BB	20170214	US20100384573	20100519

US9702552 BB	20170711	US20100698254	20100813
WO11008069 A1	20110120	WO2010MY00082	20100519
WO11145917 A1	20111124	WO2010MY00144	20100813

Priority:

MY20090003009 20090717 WO2010MY00082 20100519 WO2010MY00144 20100813

Probable Assignee: GREEN ENERGY AND TECHNOLOGY SDN BHD

Assignee(s): (std): ALI MAZLAN ; GREEN ENERGY AND TECH SDN BHD ; GREEN ENERGY AND TECHNOLOGY SDN BHD ; WEBB CHRISTOPHER JOHN ; MOHD SHARIFF SITI FATIMAH

Assignee(s): GREEN ENERGY AND TECHNOLOGY SDNBHD

Inventor(s): (std): WEBB CHRISTOPHER JOHN ; MOHD SHARIFF SITI FATIMAH ; ALI MAZLAN ; SHARIFF SITI FATIMAH BINTI MOHD ; ALI MAZLAN BIN

Inventor(s): CHRISTOPHER JOHN WEBB ; MAZLAN BIN ALI ; SITI FATIMAH BINTI MOHD SHARIFF

Agent(s): HAMER CHRISTOPHER K; MASCHOFF BRENNAN; DAMODHARAN RAMAKRISHNA

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

14) Family number: 64166928 (WO16189053A1)

© PatBase

Title: SENSOR ARRANGEMENT

Abstract: The invention relates to a sensor arrangement (10) and to a method for ascertaining the content of a material within a measured object, in particular within a body part from which steam or vapor containing a material is continuously exiting, comprising a measuring chamber (3) which delimits a region of the surface of the measured object. The invention is characterized in that - the sensor arrangement (10) comprises a moisture sensor (2), said moisture sensor (2) being arranged such that the moisture within the measuring chamber (3) can be measured, - the sensor arrangement (10) comprises at least one additional sensor (4) for detecting the content of at least one material within the measuring chamber (3), - a processing unit (40) connected downstream of the moisture sensor (2) and the sensor (4) is provided, said processing unit being supplied with the detected measurement values of the sensor (4) and the moisture sensor (2), and - the processing unit (40) ascertains the content of the material within the measured object, wherein the processing unit relates the ascertained content of the material in the measuring chamber (3) to the moisture ascertained in the measuring chamber (3).

Classifications:

International (IPC 8-9): A61B5/00 A61B5/145 A61B5/1455 G01N1/22 G01N25/56 G01N25/60 G01N33/497 (Advanced/Invention); G01N25/60 (Advanced/Non-invention)
CPC: A61B5/14521 A61B5/14539 A61B5/441 G01N33/497 G01N2001/2241 A61B5/4266 A61B5/14532 A61B5/14542 A61B5/14551 A61B2562/029 G01N25/56

PatBase - WO16189053_A1

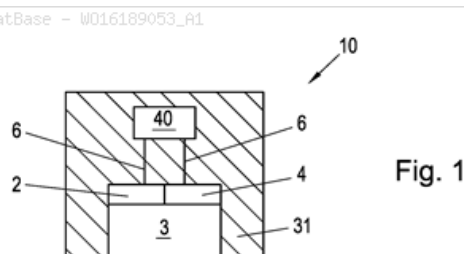


Fig. 1

Family:

Publication number	Publication date	Application number	Application date
AT517281 A1	20161215	AT20150050432	20150528
EP3302271 A1	20180411	EP20160724678	20160525
WO16189053 A1	20161201	WO2016EP61839	20160525

Priority:

AT20150050432 20150528 WO2016EP61839 20160525

Probable Assignee: VASEMA DIAGNOSTICS AG

Assignee(s): (std): VASEMA DIAGNOSTICS AG ; VASEMA GMBH

Inventor(s): (std): HAGL PETER ; HAGL PETER DIPL ING

Inventor(s): HAGL PETER DIPLING

Agent(s): WILDHACK AND JELLINEK PATENTANWALTE

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