

Search history

Search 1: TAC=(ABSORBENTE~ AND ARTICLE~ AND EXPANDED~ AND INK~ AND PARTICLES~ AND THREE~ AND DIMENSIONAL~) (Results 6)

Search 2: TAC=(ABSORBENTE~ AND ARTICLE~ AND EXPANDED~ AND INK~ AND PARTICLES~) (Results 13)

Title: INFORMATION STORAGE USING PLURAL CODED INKS

Abstract: Source: US3340984A ABSTRACT OF THE DISCLOSURE A coding device is associated with a typewriter, consisting of a printing head located above or below the point where a type bar strikes through a ribbon onto a paper held by the typewriter platen. The head is provided with a plurality of printing heads, six for alphanumeric operation, each head actuated by solenoid and each head constituting a porous printing rod impregnated with or fed with an ink having a single and different component of the code. Striking a typewriter key makes electrical contact with one or more bars, each corresponding to a single hammer and thus to a single component of the code. The signals from the contacts cause actuation of one or more of the six printing hammers, depending on the number of components in the code corresponding to the symbol struck by the typewriter key. There is thereby imprinted on the paper one or more dots each in an ink carrying a different and single component of the code. The preferred coded inks have components which fluoresce under ultraviolet light and preferably have one or more of the components in the form of complexes of lanthanide ions, which fluoresce in extremely narrow bands. B

Classifications:

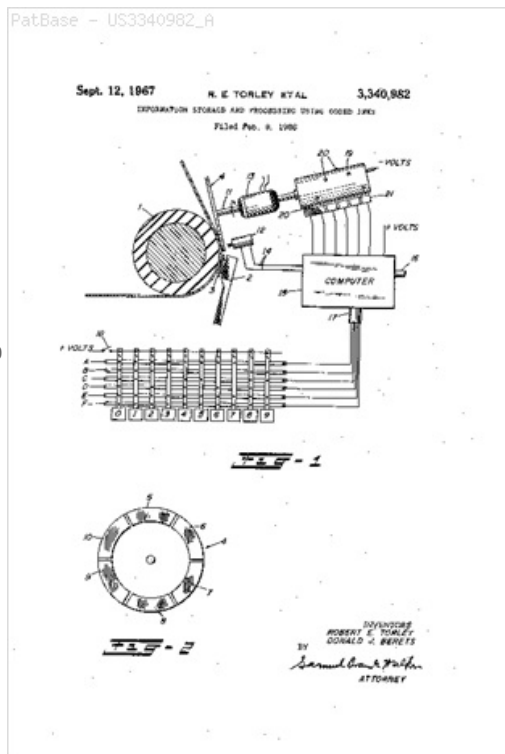
International (IPC 8-9): A47C7/18 B07C3/14 B07C3/18 B41B25/00 B41J31/05 B44F1/12 C07F5/00 C09B57/10 C09D11/00 C09D5/22 C09K11/02 C09K11/74 C09K11/77 F21K2/00 G01N21/64 G06K1/12 G06K19/00 G06K19/02 G06K19/06 G06K19/08 G06K7/12 G09C1/08 G11B7/003 (Advanced/Invention); G06K19/06 (Advanced/Non-invention); A47C7/18 B07C3/00 B07C3/10 B41B25/00 B41J31/05 B44F1/00 C07F5/00 C09B57/00 C09D11/00 C09D5/22 C09K11/02 C09K11/74 C09K11/77 F21K2/00 G01N21/64 G06K1/00 G06K19/00 G06K19/02 G06K19/06 G06K19/08 G06K7/12 G09C1/06 G11B7/00 (Core/Invention); G06K19/06 (Core/Non-invention)

International (IPC 1-7): A47C23/18 A47C7/24 B41J27/04 B41J31/00 B44F7/00 C09B67/00 C09D5/22 C09K11/00 C09K11/02 C09K11/06 C09K11/44 C09K11/46 C09K11/475 D21H5/10 G01D5/26 G01N21/38 G01N21/64 G01N23/04 G02B27/22 G06K1/12 G06K19/00 G06K19/02 G06K7/12 G06K9/00 G07C11/00 G11B7/04 G11C11/42 G11C13/04 G11C17/00

CPC: C09K11/025 F21K2/00 A47C7/282 B60N2/542 G01N21/6447 G01N2021/6421 Y02B20/181 B41B25/00 G11B7/003 B07C3/14 B07C3/18 B41J31/05 C07F5/003 C09B57/10 C09D5/22 C09D11/50 C09K11/74 C09K11/77 C09K11/7769 C09K11/7776 G01N21/64 G06K1/12 G06K1/123 G06K7/12 G06K19/00 G06K19/02 G06K19/06009 G06K19/08 G06K2019/06225 B42D25/387

European: A47C7/18B A47C7/28A B07C3/14 B07C3/18 B41B25/00 B41J31/05 B60N2/54B C07F5/00B C09B57/10 C09D11/50 C09D5/22 C09K11/02B C09K11/44 C09K11/46 C09K11/475B C09K11/475F C09K11/74 C09K11/77 C09K11/77S2H C09K11/77S8 F21K2/00 G01N21/64 G01N21/64M G06K1/12 G06K1/12B1 G06K19/00 G06K19/02 G06K19/06C G06K19/08 G06K7/12 G11B7/003 S01N21/64G3 S06K19/06W2 Y02B20/18B

US: 101/103 101/109 101/193 101/202 101/211 101/327 101/335 101/93 101/93.01 101/93.45 235/462.04 235/468 235/469 235/491 235/61.11 250/271 250/363.01 250/365 250/366 250/458.1 250/461.1 250/60 250/71 267/145 283/901 283/92 297/452.49 359/464 400/106 400/240.3 400/240.4 400/330.8 400/466 434/401 G9B/7.003

**Family:**

Publication number	Publication date	Application number	Application date
BE677516 A	19660908		19660308
CH488238 A	19700331	CH19670001861	19670208
CH498468 A	19701031	CH19660003285	19660308
CH516196 A	19711130	CH19660007215	19660308
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DE2100706 A1	19710715	DE19712100706	19710108
FR1471367 A	19670303	FR19660052600	19660308
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Priority:

CH19660003285 19660308	CH19670001861 19670208	DE1967A054860 19670209
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Probable Assignee: AMERICAN CYANAMID CO

Assignee(s): (std): AMERICAN CYANAMID CO ; GEN TIRE AND RUBBER CO ; THE GENERAL TIRE AND RUBBER CO

Assignee(s): THE GENERAL TIRE AND RUBBER COMPANY ; AMERICAN CYANAMID ; GENERAL TIRE AND RUBBER CO ; AMERICAN CYANAMID COMPANY

Inventor(s): (std): PHILIPS FREEMAN MARK ; WELCH JOHN A ; TORLEY ROBERT E ; SMITH RAYMOND J DUNSFORD ; SIEGEL LESTER A ; SCHWARTZ ROGER P ; POSTAL ROBERT H ; POST DANIEL ; PHILLIPS FREEMAN MARK ; LANE JR LESLIE C ; CLUTE LANE JUN LESLIE ; BERETS DONALD J ; AARON SIEGEL LESTER ; WELCH J ; SIEGEL LESTER AARON ; SIEGEL L ; SCHWARTZ R ; LANE LESLIE C JR ; HALVERSON FREDERICK ; HALVERSON F ; FREEMAN MARK PHILLIPS ; FREEMAN M ; ROBERT HARRISON ; ROBERT EDWARD TORLEY ; MARK PHILLIPS FREEMAN ; LESTER AARON SIEGEL ; LESLIE CLUTE JR LANE ; JOHN DUNSFORD SMITY RAYMOND ; JOSEPH BERETS DONALD ; JNR LESLIE C LANE ; HARROSON POSTAL ROBERT ; FREEMAN MARK P ; FREDERICK HALVERSON ; EDWARD TORLEY ROBERT ; DUNSFORD SMITH RAYMOND JOHN ; DONALD JOSEPH BERETS ; DANIEL POST

Inventor(s): CLUTE JR LANE LESLIE ; DONALD J BERETS ; HARRISON ROBERT ; DUNSFORD SMITY RAYMOND JOHN ; JR LESLIE C LANE ; CLUTE LANE JUN ; FREEMAN MARK PHILIPS ; MARK P FREEMAN ; LESTER A SIEGEL ; LESLIE C LANE JNR ; ROBERT H POSTAL ; ROBERT E TORLEY ; RAYMOND J DUNSFORD SMITH ; SMITH RAYMOND JOHN DUNSFORD

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
BE677516 A	19660908	LSGT	+	granted / extensions (spc, cpc, pte)	
CH488238 A	19700331	LSGT	+	granted / extensions (spc, cpc, pte)	
CH488238 A	19730914	LSLE	-PL	PATENT CEASED	
CH498468 A	19701031	LSGT	+	granted / extensions (spc, cpc, pte)	
CH498468 A	19751015	LSLE	-PL	PATENT CEASED	
CH516196 A	19711130	LSGT	+	granted / extensions (spc, cpc, pte)	
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DE1499575 A1	19700402	LSPB	+	published / reissued	
DE1524714 A1	19720824	LSPB	+	published / reissued	
DE1524714 A1	19720824	LSPB	+	published / reissued	
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FR1471367 A	19670303	LSGT	+	granted / extensions (spc, cpc, pte)	
FR1510602 A	19680119	LSGT	+	granted / extensions (spc, cpc, pte)	
FR1520520 A	19680412	LSGT	+	granted / extensions (spc, cpc, pte)	
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GB1186251 A	19700402	LSGT	+	granted / extensions (spc, cpc, pte)	
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GB1310481 A	19730321	LSGT	+	granted / extensions (spc, cpc, pte)
GB1310481 A	19730912	LSGT	+PS	PATENT SEALED
GB1310481 A	19751001	LSLE	-PLNP	PATENT LAPSED THROUGH NONPAYMENT OF RENEWAL FEES
NL6603007 A	19660909	LSPB	+	published / reissued
NL6701982 A	19670810	LSPB	+	published / reissued
SE304095 B	19680916	LSPB	+	published / reissued
SE342517 B	19720207	LSPB	+	published / reissued
US3328085 A	19670627	LSGT	+	granted / extensions (spc, cpc, pte)
US3340982 A	19670912	LSGT	+	granted / extensions (spc, cpc, pte)
US3340983 A	19670912	LSGT	+	granted / extensions (spc, cpc, pte)
US3340984 A	19670912	LSGT	+	granted / extensions (spc, cpc, pte)
US3371601 A	19680305	LSGT	+	granted / extensions (spc, cpc, pte)
US3473027 A	19691014	LSGT	+	granted / extensions (spc, cpc, pte)
US3482095 A	19691202	LSGT	+	granted / extensions (spc, cpc, pte)
US3486006 A	19691223	LSGT	+	granted / extensions (spc, cpc, pte)

Title: Encapsulated liquid crystal and method

Abstract: Source: US4435047A Briefly, according to one aspect of the invention, liquid crystal material, and especially nematic material, is encapsulated; according to another aspect the encapsulated liquid crystal material is used in liquid crystal devices, such as relatively large size visual display devices; and according to further aspects there are provided methods for encapsulating liquid crystal material and for making a liquid crystal device using such encapsulated liquid crystal material.

Classifications:

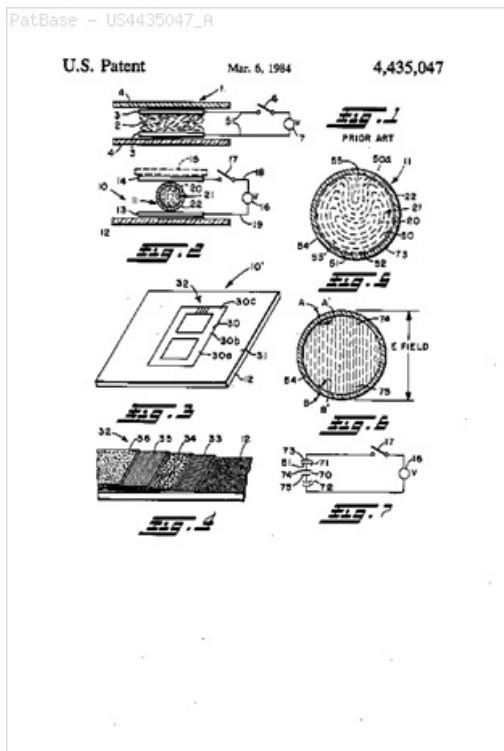
International (IPC 8-9): B01J13/00 C09K19/00 C09K19/02 C09K19/52 C09K19/54 G02F1/13 G02F1/133 G02F1/1334 G02F1/1335 G02F1/137 G09F9/00 G09F9/35 (Advanced/Invention); C09K19/00 G02F1/13 G09F9/00 G09F9/35 (Advanced/Non-invention); B01J13/00 C09K19/00 C09K19/02 C09K19/52 C09K19/54 G02F1/13 G09F9/35 (Core/Invention); G01T G02F G09F (Subclass/Invention)

International (IPC 1-7): B01J13/00 B01J13/02 C09K19/00 C09K19/02 C09K19/52 C09K19/56 C09K3/34 G01T G02F1/13 G02F1/133 G02F1/1333 G02F1/1335 G02F1/135 G02F1/137 G09F9/00 G09F9/35

CPC: Y10S359/90 C09K19/36 C09K19/60 C09K2019/528 Y10T428/2984 Y10T428/2985 Y10T428/1055 G02F1/133524 G02F1/137 G02F1/1334 C09K19/544 G02F1/1335 G02F2202/043 Y10T428/249997

European: C09K19/54A3 G02F1/1334 G02F1/1335 G02F1/1335J G02F1/137 S02F202/04A

US: 252/299.01 252/299.1 264/4 345/50 349/105 349/106 349/11 349/110 349/113 349/122 349/139 349/158 349/165 349/177 349/187 349/33 349/35 349/66 349/86 349/89 349/90 349/94 349/98 350/320 350/331R 350/334 350/336 350/340 350/344 350/345 350/346 350/347V 350/349 350/350R 359/51 359/52 359/70 359/77 359/900 359/94 40/448 40/624 427/213.3 427/213.35 427/213.36 428/1 428/1.4 428/321.5 428/402.2 428/402.21 428/402.81



Family:

Publication number	Publication date	Application number	Application date
AT105321 E	19940515	AT19850901686T	19850228
AT117099 E	19950115	AT19840111941T	19840321
AT60526 E	19910215	AT19820903099T	19820914
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Priority:

AU19830012015	19830303	AU19840024834	19840222	AU19850040692	19850228
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Probable Assignee: MANCHESTER R AND D PARTNERSHIP LTD

Assignee(s): (std): BELL JAMES R JR ; BELL JAMES ROEDER ; III BELL ; FERGUSON J L ; BELL L M ; FERGASON J L ; FERGASON JAMES L ; BELL J F ; BELL J R ; BELL J R JNR BELL J R III BELL ; BELL J R JNR BELL J R III BELL L M BELL J F AND ; JNR ; L M BELL J F ; MANCHESTER R END D PARTNERSHIP ; MANCHESTER R AND D PARTNERSHIP ; MANCHIESUTAA AARU ANDO DEII PA ; MANCHESTER R AND D PARTN LTD ; MANCHESTER R END D PARTNERSHIP FA ; MANCHESTER R AND D PARTNERSHIP C ; MANCHIESUTAA R AND D PAATONAASHI

Assignee(s): MANCHIESUTAA AARU ANDO DEII PAATONAASHITSUPU ; POE LESLIE MB ; MANCHESTER R AND D PARTNERSHIP LTD ; MANCHESTER R AND D PARTNERSHIP A PARTNERSHIP OF OH ; JAMES ROEDER BELL JR ; JAMES ROEDER BELL III ; MANCHESTER R AND D LTD PARTNERSHIP PEPPER PIKE OHIO US ; MANCHESTER RAND D PARTNERSHIP LTD ; MANCHESTER R AND D PARTNERSHIP PEPPER PIKE OHIO US ; MANCHESTER R AND D LTD PARTNERSHIP PEPPER PIKE OHI ; MANCHESTER R AND D PARTNERSHIP PEPPER PIKE OHIO ; MANSNEDZTER R ENND D RARTNERDZNIR FA ; MANCHESTER R AND D LIMITED PARTNERSHIP ; MANCHIESUTA R AND D PAATONAASHIP ; JAMES R BELL JR ; MANSNEDZTER R ENND D RARTNERDZNIR FIRMA ; MANCHESTER R AND D PARTNERSHIP AN OH LTD ; MANCHESTER R AND D PARTNERSHIP A LTD ; MANCHESTER R AND D LTD ; MANCHESUTAA AARU

Inventor(s): (std): ANDO DEI LP ; MANCHESUTA AARU ANDO DEI PAATONAASHITSUPU ; MANCHIESUTAA R AND D PAATONAASHIP ; MANCHESTER R AND D PARTNERSHIP C O JAMES R BELL JR ; BELL JOHN F ; BELL JR ; FERGUSON JL ; BELL JR BELL JR BELL LM BELL JF ; FERGASON JL ; BELL JAMES R III ; BELL J R BELL J R BELL L M BELL J F ; FERGASON JAMES LEE ; BELL JOHN FARMER ; BELL LESLIE MERIAM ; BELL JAMES ROEDER III ; BELL JAMES ROEDER JR

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Agent(s): CULLENS PATENT AND TRADE MARK ATTORNEYS; CULLENS PTY LTD; SWABEY OGILVY RENAULT; OGILVY RENAULT LLP SENCRL SRL; EITAN PEARL LATZER AND COHEN ZEDEK; REINHOLD COHN AND PARTNERS

Designated states: AT AU BE BR CH DE FR GB IT JP KP LI LU NL SE SU

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT105321 E	19940515	LSGT	+	granted / extensions (spc, cpc, pte)	
AT105321 E	19941115	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	
AT105321 E	20050515	LSLE	-EELA	CANCELLED DUE TO LAPSE OF TIME	
AT117099 E	19950115	LSGT	+	granted / extensions (spc, cpc, pte)	
AT117099 E	19950615	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	
AT117099 E	20011215	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AT60526 E	19910215	LSGT	+	granted / extensions (spc, cpc, pte)	
AT60526 E	19940815	LSAS	EEFA	CHANGE OF THE COMPANY NAME	
AT60526 E	19950715	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	
AT60526 E	20021215	LSLE	-EELA	CANCELLED DUE TO LAPSE OF TIME	
AT77886 E	19920715	LSGT	+	granted / extensions (spc, cpc, pte)	
AT77886 E	19921215	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	
AT77886 E	19940815	LSAS	EEFA	CHANGE OF THE COMPANY NAME	
AT77886 E	20011215	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AU198312015 A1	19840906	LSPB	+	published / reissued	
AU198424834 A1	19840927	LSPB	+	published / reissued	
AU198540692 A1	19850924	LSPB	+	published / reissued	
AU198821808 A1	19881208	LSPB	+	published / reissued	
AU198935085 A1	19890914	LSPB	+	published / reissued	
AU567868 B2	19871210	LSGT	+	granted / extensions (spc, cpc, pte)	
AU567868 B2	20011004	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU579092 B2	19881117	LSGT	+	granted / extensions (spc, cpc, pte)	
AU579092 B2	20020926	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU614370 B2	19910829	LSGT	+	granted / extensions (spc, cpc, pte)	

AU614370 B2	20001019	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
AU617354 B2	19911128	LSGT	+	granted / extensions (spc, cpc, pte)	
AU617354 B2	20040923	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
BR8207867 A	19830830	LSPB	+	published / reissued	
BR8207867 A	20080701	LSLE	-B21A	EXPIRY ACC. ART. 78, ITEM I OF IPL- EXPIRY OF THE TERM OF PROTECTION	DESCRIPTION : PATENTE EXTINTA EM 14/09/97
CA1186502 A1	19850507	LSPB	+	published / reissued	
CA1186502 A1	20020508	LSRE	+MKEC	EXPIRY (CORRECTION)	
CA1186502 A1	20020915	LSLE	-MKEX	EXPIRY	
CA1261042 A1	19890926	LSPB	+	published / reissued	
CA1261042 A1	20060926	LSLE	-MKEX	EXPIRY	
CA1262485 A1	19891024	LSPB	+	published / reissued	
CA1262485 A1	20021024	LSLE	-MKLA	LAPSED	
DE3280302 D1	19920206	LSOP	-8363	OPPOSITION AGAINST THE PATENT	
DE3280302 D1	19950309	LSOP	+8366	RESTRICTED MAINTAINED AFTER OPPOSITION PROCEEDINGS	
DE3280302 D1	19950316	LSAS	8327	CHANGE IN THE PERSON/NAME/ADDRESS OF THE PATENT OWNER	OWNER NAME : MANCHESTER R AND D LTD. PARTNERSHIP, PEPPER PIKE, OH
DE3485793 D1	19930729	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE3485793 D1	19950316	LSAS	8327	CHANGE IN THE PERSON/NAME/ADDRESS OF THE PATENT OWNER	OWNER NAME : MANCHESTER R AND D LTD. PARTNERSHIP, PEPPER PIKE, OH
DE3485793 T2	19921224	LSGT	+	granted / extensions (spc, cpc, pte)	
DE3486365 D1	19960215	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE3486365 D1	20020627	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE3486365 T2	19950518	LSGT	+	granted / extensions (spc, cpc, pte)	
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DE3587812 T2	19940811	LSGT	+	granted / extensions (spc, cpc, pte)	
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EP0088126 A1	19830914	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19830502
EP0088126 A1	19870204	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 19861223
EP0088126 A1	19901031	LSAS	RAP1	TRANSFER OF RIGHTS OF AN EP PUBLISHED APPLICATION	OWNER NAME : MANCHESTER R AND D PARTNERSHIP
EP0088126 A1	19911227	LSOP	-26	OPPOSITION FILED	OPPONENT NAME : KENT STATE UNIVERSITY EFFECTIVE DATE : 19911030
EP0088126 A1	19911227	LSOP	-26	OPPOSITION FILED	OPPONENT NAME : TANAKA, MASAHISA EFFECTIVE DATE : 19911030
EP0088126 A1	19920302	LSOP	-NLR1	NL: OPPOSITION HAS BEEN FILED WITH THE EPO	OPPONENT NAME : TANAKA, MASAHISA
EP0088126 A1	19920302	LSOP	-NLR1	NL: OPPOSITION HAS BEEN FILED WITH THE EPO	OPPONENT NAME : KENT STATE UNIVERSITY
EP0088126 A1	19931231	LSAS	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PFA DESCRIPTION : MANCHESTER

					R AND D LIMITED PARTNERSHIP
EP0088126 A1	19940401	LSAS	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : CD
EP0088126 A1	19950104	LSRE	27A	MAINTAINED AS AMENDED	EFFECTIVE DATE : 19950104
EP0088126 A1	19950131	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : AEN
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EP0088126 A1	20001004	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : LU PAYMENT DATE : 20001004 YEAR OF FEE PAYMENT : 19
EP0088126 A1	20011010	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : AT PAYMENT DATE : 20011010 YEAR OF FEE PAYMENT : 20
EP0088126 A1	20011012	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : FR PAYMENT DATE : 20011012 YEAR OF FEE PAYMENT : 20
EP0088126 A1	20011018	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : SE PAYMENT DATE : 20011018 YEAR OF FEE PAYMENT : 20
EP0088126 A1	20011019	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : GB PAYMENT DATE : 20011019 YEAR OF FEE PAYMENT : 20
EP0088126 A1	20011022	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : CH PAYMENT DATE : 20011022 YEAR OF FEE PAYMENT : 20
EP0088126 A1	20011026	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : NL PAYMENT DATE : 20011026 YEAR OF FEE PAYMENT : 20
EP0088126 A1	20011029	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : DE PAYMENT DATE : 20011029 YEAR OF FEE PAYMENT : 20
EP0088126 A1	20011115	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : BE PAYMENT DATE : 20011115 YEAR OF FEE PAYMENT : 20
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EP0088126 A1	20020913	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : GB DESCRIPTION : LAPSE BECAUSE OF EXPIRATION OF PROTECTION EFFECTIVE DATE : 20020913
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EP0088126 A1	20020914	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : AT DESCRIPTION : LAPSE BECAUSE OF EXPIRATION OF PROTECTION EFFECTIVE DATE : 20020914
EP0088126 A1	20020914	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : NL DESCRIPTION : LAPSE BECAUSE OF EXPIRATION OF PROTECTION EFFECTIVE DATE : 20020914
EP0088126 A1	20020914	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : LU DESCRIPTION : LAPSE BECAUSE OF EXPIRATION OF PROTECTION EFFECTIVE DATE : 20020914
EP0088126 A1	20020930	LSLE	-BE20	BE: PATENT EXPIRED	OWNER NAME : *MANCHESTER R AND D LTD PARTNERSHIP EFFECTIVE DATE : 20020914

EP0088126 A1	20021009	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EFFECTIVE DATE : 20020913
EP0088126 A1	20021015	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0088126 A1	20021022	LSLE	-EUG	SE: EUROPEAN PATENT HAS LAPSED	REF DOCUMENT NUMBER : 82903099.8 FORMAT OF REF DOCUMENT (F/P) : F
EP0088126 A1	20021101	LSLE	-NLV7	NL: LAPSED DUE TO REACHING THE MAXIMUM LIFETIME OF A PATENT	EFFECTIVE DATE : 20020914
EP0088126 B1	19910130	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0088126 B2	19950104	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0122737 A1	19841024	LSPB	+	published / reissued	
EP0122737 A1	19850703	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19850419
EP0122737 A1	19870121	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 19861208
EP0122737 A1	19930623	LSGT	+26N	NO OPPOSITION FILED	
EP0122737 A1	19931223	LSAS	ITPR	IT: CHANGES IN OWNERSHIP OF A EUROPEAN PATENT	OWNER NAME : CAMBIO RAGIONE SOCIALE; MANCHESTER R AND D LIMITED PA
EP0122737 A1	19931231	LSAS	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PFA DESCRIPTION : MANCHESTER R AND D LIMITED PARTNERSHIP
EP0122737 A1	19940401	LSAS	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : CD
EP0122737 A1	20000407	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : AT PAYMENT DATE : 20000407 YEAR OF FEE PAYMENT : 17
EP0122737 A1	20000417	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : CH PAYMENT DATE : 20000417 YEAR OF FEE PAYMENT : 17
EP0122737 A1	20000417	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : SE PAYMENT DATE : 20000417 YEAR OF FEE PAYMENT : 17
EP0122737 A1	20000425	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : NL PAYMENT DATE : 20000425 YEAR OF FEE PAYMENT : 17
EP0122737 A1	20000515	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : BE PAYMENT DATE : 20000515 YEAR OF FEE PAYMENT : 17
EP0122737 A1	20000515	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : LU PAYMENT DATE : 20000515 YEAR OF FEE PAYMENT : 17
EP0122737 A1	20010321	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : AT DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20010321
EP0122737 A1	20010321	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : LU DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20010321
EP0122737 A1	20010322	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : SE DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20010322
EP0122737 A1	20010331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA	REF COUNTRY CODE : CH DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF

EP0122737 A1	20010331	LSLE	-PG25	POSTGRANT INFORM. FROM NAT. OFFICE TO EPO LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	DUE FEES EFFECTIVE DATE : 20010331 REF COUNTRY CODE : BE DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20010331
EP0122737 A1	20010331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : LI DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20010331
EP0122737 A1	20010930	LSLE	-BERE	BE: LAPSED	OWNER NAME : MANCHESTER R AND D LTD PARTNERSHIP EFFECTIVE DATE : 20010331
EP0122737 A1	20011001	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : NL DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20011001
EP0122737 A1	20011105	LSLE	-EUG	SE: EUROPEAN PATENT HAS LAPSED	REF DOCUMENT NUMBER : 84301911.8 FORMAT OF REF DOCUMENT (F/P) : F
EP0122737 A1	20011115	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0122737 A1	20011203	LSLE	-NLV4	NL: LAPSED OR ANULLED DUE TO NON- PAYMENT OF THE ANNUAL FEE	EFFECTIVE DATE : 20011001
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EP0122737 A1	20030417	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : GB PAYMENT DATE : 20030417 YEAR OF FEE PAYMENT : 20
EP0122737 A1	20030428	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : DE PAYMENT DATE : 20030428 YEAR OF FEE PAYMENT : 20
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EP0122737 A1	20040414	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20
EP0122737 B1	19920701	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0174982 A1	19860326	LSPB	+	published / reissued	
EP0174982 A1	19860326	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19851116
EP0174982 A1	19890118	LSES	+A4	DESPATCH OF SUPPLEMENTARY SEARCH REPORT	EFFECTIVE DATE : 19881128
EP0174982 A1	19900516	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 19900329
EP0174982 A1	19930908	LSAS	RAP1	TRANSFER OF RIGHTS OF AN EP PUBLISHED APPLICATION	OWNER NAME : MANCHESTER R AND D LIMITED PARTNERSHIP
EP0174982 A1	19950426	LSGT	+26N	NO OPPOSITION FILED	
EP0174982 A1	20040511	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : AT PAYMENT DATE : 20040511 YEAR OF FEE PAYMENT : 20
EP0174982 A1	20040513	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : FR PAYMENT DATE : 20040513 YEAR OF FEE PAYMENT : 20
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EP0174982 A1	20040519	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : CH PAYMENT DATE : 20040519 YEAR OF FEE PAYMENT : 20
EP0174982 A1	20040520	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : DE PAYMENT DATE : 20040520 YEAR OF FEE PAYMENT : 20
EP0174982 A1	20040521	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : SE PAYMENT DATE : 20040521 YEAR OF FEE PAYMENT : 20
EP0174982 A1	20040525	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : LU PAYMENT DATE : 20040525 YEAR OF FEE PAYMENT : 20
EP0174982 A1	20040616	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : BE PAYMENT DATE : 20040616 YEAR OF FEE PAYMENT : 20
EP0174982 A1	20050227	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : GB DESCRIPTION : LAPSE BECAUSE OF EXPIRATION OF PROTECTION EFFECTIVE DATE : 20050227
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EP0174982 A1	20050228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : NL DESCRIPTION : LAPSE BECAUSE OF EXPIRATION OF PROTECTION EFFECTIVE DATE : 20050228
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EP0174982 A1	20050323	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20
EP0174982 A1	20050331	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0174982 A1	20050502	LSLE	-NLV7	NL: LAPSED DUE TO REACHING THE MAXIMUM LIFETIME OF A PATENT	EFFECTIVE DATE : 20050228
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EP0174982 A1	20071231	LSLE	-BE20	BE: PATENT EXPIRED	OWNER NAME : MANCHESTER *R AND D LTD PARTNERSHIP EFFECTIVE DATE : 20050228
EP0174982 B1	19940504	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0260455 A1	19880323	LSPB	+	published / reissued	
EP0260455 A1	19880323	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19870818
EP0260455 A1	19910123	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 19901207
EP0260455 A1	19930908	LSAS	RAP1	TRANSFER OF RIGHTS OF AN EP PUBLISHED APPLICATION	OWNER NAME : MANCHESTER R AND D LIMITED PARTNERSHIP
EP0260455 A1	19960103	LSGT	+26N	NO OPPOSITION FILED	
EP0260455 A1	20000407	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : AT PAYMENT DATE : 20000407 YEAR OF FEE PAYMENT : 17

EP0260455 A1	20000411	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : FR PAYMENT DATE : 20000411 YEAR OF FEE PAYMENT : 17
EP0260455 A1	20000417	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : CH PAYMENT DATE : 20000417 YEAR OF FEE PAYMENT : 17
EP0260455 A1	20000417	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : SE PAYMENT DATE : 20000417 YEAR OF FEE PAYMENT : 17
EP0260455 A1	20000419	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : GB PAYMENT DATE : 20000419 YEAR OF FEE PAYMENT : 17
EP0260455 A1	20000425	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : NL PAYMENT DATE : 20000425 YEAR OF FEE PAYMENT : 17
EP0260455 A1	20000425	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : DE PAYMENT DATE : 20000425 YEAR OF FEE PAYMENT : 17
EP0260455 A1	20000515	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : LU PAYMENT DATE : 20000515 YEAR OF FEE PAYMENT : 17
EP0260455 A1	20000515	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : BE PAYMENT DATE : 20000515 YEAR OF FEE PAYMENT : 17
EP0260455 A1	20010321	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : AT DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20010321
EP0260455 A1	20010321	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : GB DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20010321
EP0260455 A1	20010321	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : LU DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20010321
EP0260455 A1	20010322	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : SE DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20010322
EP0260455 A1	20010331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : LI DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20010331
EP0260455 A1	20010331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : CH DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20010331
EP0260455 A1	20010331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : BE DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20010331
EP0260455 A1	20010930	LSLE	-BERE	BE: LAPSED	OWNER NAME : MANCHESTER R AND D LTD PARTNERSHIP EFFECTIVE DATE : 20010331
EP0260455 A1	20011001	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : NL DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20011001
EP0260455 A1	20011105	LSLE	-EUG	SE: EUROPEAN PATENT HAS LAPSED	REF DOCUMENT NUMBER : 87111941.8 FORMAT OF REF DOCUMENT (F/P) : F
EP0260455 A1	20011114	LSLE	-GBPC	GB: EUROPEAN PATENT	EFFECTIVE DATE : 20010321

					CEASED THROUGH NON-PAYMENT OF RENEWAL FEE
EP0260455 A1	20011115	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0260455 A1	20011130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : FR DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20011130
EP0260455 A1	20011203	LSLE	-NLV4	NL: LAPSED OR ANULLED DUE TO NON-PAYMENT OF THE ANNUAL FEE	EFFECTIVE DATE : 20011001
EP0260455 A1	20011228	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST
EP0260455 A1	20020101	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : DE DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20020101
EP0260455 B1	19950111	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0268877 A2	19880601	LSPB	+	published / reissued	
EP0268877 A2	19880601	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19871102
EP0268877 A2	19920318	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 19920205
EP0268877 A2	19930908	LSAS	RAP1	TRANSFER OF RIGHTS OF AN EP PUBLISHED APPLICATION	OWNER NAME : MANCHESTER R AND D LIMITED PARTNERSHIP
EP0268877 A2	19951011	LSDW	-18D	DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 19940906
EP0268877 A2	20070808	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : FERGASON, JAMES LEE
ES530757 A1	19980616	LSAS	+PC1A	TRANSFER GRANTED	
ES530757 A1	19980616	LSAS	+PC1A	TRANSFER GRANTED	
ES530757 A1	20070301	LSLE	-FD1A	PATENT LAPSED	EFFECTIVE DATE : 20050425
ES530757 A1	20070301	LSLE	-FD1A	PATENT LAPSED	EFFECTIVE DATE : 20050425
ES8600667 A1	19860116	LSPB	+	published / reissued	
FI841091 A	19840922	LSPB	+	published / reissued	
FI89311 B	19930531	LSPB	+	published / reissued	
FI89311 B	19930503	LSPB	BB	Publication of examined application	
FI89311 B	19980224	LSAS	TC	NAME/ COMPANY CHANGED IN PATENT	OWNER NAME : MANCHESTER R AND D LIMITED PARTNERSHIP
FI89311 B	20040831	LSLE	-MA	PATENT EXPIRED	OWNER NAME : MANCHESTER R AND D LIMITED PARTNERSHIP
FI89311 C	19930910	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2128626 A1	19840502	LSPB	+	published / reissued	
GB2128626 A1	19860219	LSGT	+PG	PATENT GRANTED	
GB2128626 A1	19980506	LSLE	-PCNP	PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	EFFECTIVE DATE : 19970914
GB2128626 B2	19860219	LSGT	+	granted / extensions (spc, cpc, pte)	
HK42789 A	19890609	LSGT	+	granted / extensions (spc, cpc, pte)	
HK42789 A	20041215	LSLE	-PC	PATENT CEASED (I.E. PATENT HAS LAPSED DUE TO THE FAILURE TO PAY THE RENEWAL FEE)	
HK51194 A	19940527	LSGT	+	granted / extensions (spc, cpc, pte)	

HK51194 A	20041215	LSLE	-PC	PATENT CEASED (I.E. PATENT HAS LAPSED DUE TO THE FAILURE TO PAY THE RENEWAL FEE)	
HK78191 A	19911011	LSGT	+	granted / extensions (spc, cpc, pte)	
HK78191 A	20041215	LSLE	-PE	PATENT EXPIRED	
IE59619 B	19940309	LSGT	+	granted / extensions (spc, cpc, pte)	
IE59619 B	20040505	LSLE	MK9A	PATENT EXPIRED	
IL71049 A0	19990312	LSAS	HCE	CHANGE OF NAME AND ADDRESS OF PROPRIETOR(S)	
IL71049 A0	20020523	LSFE	+KB	PATENT RENEWED	
IL71049 A0	20040512	LSLE	-EXP	PATENT EXPIRED	
IL71049 A1	19931228	LSPB	+	published / reissued	
JP2013528 C3	19960202	LSGT	+	granted / extensions (spc, cpc, pte)	
JP2134882 C3	19980213	LSGT	+	granted / extensions (spc, cpc, pte)	
JP2136683 C3	19980605	LSGT	+	granted / extensions (spc, cpc, pte)	
JP2776684 B2	19980716	LSGT	+	granted / extensions (spc, cpc, pte)	
JP3052843 B4	19910813	LSPB	+	published / reissued	
JP4305620 A2	19921028	LSPB	+	published / reissued	
JP58501631 T2	19830929	LSPB	+	published / reissued	
JP59178428 A2	19841009	LSPB	+	published / reissued	
JP6011691 A2	19940121	LSPB	+	published / reissued	
JP6011692 A2	19940121	LSPB	+	published / reissued	
JP6011693 A2	19940121	LSPB	+	published / reissued	
JP6011696 A2	19940121	LSPB	+	published / reissued	
JP6011697 A2	19940121	LSPB	+	published / reissued	
JP6051284 A2	19940225	LSPB	+	published / reissued	
JP61501345 T2	19860703	LSPB	+	published / reissued	
JP7009512 B4	19950201	LSPB	+	published / reissued	
JP7036068 B4	19950419	LSPB	+	published / reissued	
JP7062742 B4	19950705	LSPB	+	published / reissued	
KR840004266 A	19841010	LSPB	+	published / reissued	
KR840008996 A	19841220	LSPB	+	published / reissued	
KR970000345 B1	19970108	LSGT	+	granted / extensions (spc, cpc, pte)	
KR970000345 B1	19880215	LSES	A201	REQUEST FOR EXAMINATION	
KR970000345 B1	19930525	LSRV	-E601	DECISION TO REFUSE APPLICATION	
KR970000345 B1	19930824	LSAL	J2X1	APPEAL (BEFORE THE PATENT COURT)	DESCRIPTION : APPEAL AGAINST DECISION TO DECLINE REFUSAL
KR970000345 B1	19960521	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR970000345 B1	19961212	LSPB	G160	DECISION TO PUBLISH PATENT APPLICATION	
KR970000345 B1	19970403	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR970000345 B1	19970609	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR970000345 B1	20030108	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20030109 YEAR OF FEE PAYMENT : 7
KR970000345 B1	20030315	LSLE	-EXPY	EXPIRATION OF TERM	
MX163255 B	19920324	LSGT	+	granted / extensions (spc, cpc, pte)	
NO173078 B	19930712	LSPB	+	published / reissued	

NO173078 C	19931020	LSGT	+	granted / extensions (spc, cpc, pte)	
NO841067 A	19840924	LSPB	+	published / reissued	
NZ207420 A	19880212	LSPB	+	published / reissued	
PH26717 A	19920915	LSGT	+	granted / extensions (spc, cpc, pte)	
SG8990110 A	19890929	LSPB	+	published / reissued	
SU1620056 A3	19910107	LSGT	+	granted / extensions (spc, cpc, pte)	
US4435047 A	19840306	LSGT	+	granted / extensions (spc, cpc, pte)	
US4435047 A	19811019	LSAS	AS	ASSIGNMENT	OWNER NAME : MANCHESTER R AND D PARTNERSHIP, DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:FERGASON, JAMES L.; REEL/FRAME:004003/0452 EFFECTIVE DATE : 19810916
US4435047 A	19870312	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4435047 A	19880816	LSRX	+RR	REQUEST FOR REEXAMINATION FILED	EFFECTIVE DATE : 19880630
US4435047 A	19910821	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US4435047 A	19930309	LSRE	CC	CERTIFICATE OF CORRECTION	
US4435047 A	19950206	LSAS	AS	ASSIGNMENT	OWNER NAME : MANCHESTER R AND D LIMITED PARTNERSHIP, OHIO DESCRIPTION : CHANGE OF NAME; ASSIGNOR:MANCHESTER R AND D PARTNERSHIP; REEL/FRAME:007308/0142 EFFECTIVE DATE : 19920511
US4435047 A	19950828	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US4579423 A	19860401	LSGT	+	granted / extensions (spc, cpc, pte)	
US4579423 A	19890905	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4579423 A	19930820	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US4579423 A	19950206	LSAS	AS	ASSIGNMENT	OWNER NAME : MANCHESTER R AND D LIMITED PARTNERSHIP, OHIO DESCRIPTION : CHANGE OF NAME; ASSIGNOR:MANCHESTER R AND D PARTNERSHIP; REEL/FRAME:007308/0142 EFFECTIVE DATE : 19920511
US4579423 A	19970930	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US4591233 A	19860527	LSGT	+	granted / extensions (spc, cpc, pte)	
US4591233 A	19891010	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4591233 A	19931025	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US4591233 A	19950206	LSAS	AS	ASSIGNMENT	OWNER NAME : MANCHESTER R AND D LIMITED PARTNERSHIP, OHIO DESCRIPTION : CHANGE OF NAME; ASSIGNOR:MANCHESTER R AND D PARTNERSHIP; REEL/FRAME:007308/0142 EFFECTIVE DATE : 19920511
US4591233 A	19971126	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US4605284 A	19860812	LSGT	+	granted / extensions (spc, cpc, pte)	
US4605284 A	19900126	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4605284 A	19940131	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8

US4605284 A	19950206	LSAS	AS	ASSIGNMENT	OWNER NAME : MANCHESTER R AND D LIMITED PARTNERSHIP, OHIO DESCRIPTION : CHANGE OF NAME; ASSIGNOR:MANCHESTER R AND D PARTNERSHIP; REEL/FRAME:007308/0142 EFFECTIVE DATE : 19920511
US4605284 A	19980204	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US4606611 A	19860819	LSGT	+	granted / extensions (spc, cpc, pte)	
US4606611 A	19830321	LSAS	AS	ASSIGNMENT	OWNER NAME : MANCHESTER R AND D PARTNERSHIP, A LIMITED PARTNERSHI DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:FERGASON, JAMES L.; REEL/FRAME:004110/0342 EFFECTIVE DATE : 19830320
US4606611 A	19900126	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4606611 A	19920317	LSRE	CC	CERTIFICATE OF CORRECTION	
US4606611 A	19940131	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US4606611 A	19950206	LSAS	AS	ASSIGNMENT	OWNER NAME : MANCHESTER R AND D LIMITED PARTNERSHIP, OHIO DESCRIPTION : CHANGE OF NAME; ASSIGNOR:MANCHESTER R AND D PARTNERSHIP; REEL/FRAME:007308/0142 EFFECTIVE DATE : 19920511
US4606611 A	19980204	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US4616903 A	19861014	LSGT	+	granted / extensions (spc, cpc, pte)	
US4616903 A	19830321	LSAS	AS	ASSIGNMENT	OWNER NAME : MANCHESTER R AND D PARTNERSHIP, A LIMITED PARTNERSHI DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:FERGASON, JAMES L.; REEL/FRAME:004110/0279 EFFECTIVE DATE : 19830312
US4616903 A	19900404	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4616903 A	19940328	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US4616903 A	19950206	LSAS	AS	ASSIGNMENT	OWNER NAME : MANCHESTER R AND D LIMITED PARTNERSHIP, OHIO DESCRIPTION : CHANGE OF NAME; ASSIGNOR:MANCHESTER R AND D PARTNERSHIP; REEL/FRAME:007308/0142 EFFECTIVE DATE : 19920511
US4616903 A	19980410	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US4707080 A	19871117	LSGT	+	granted / extensions (spc, cpc, pte)	
US4707080 A	19840302	LSAS	AS	ASSIGNMENT	OWNER NAME : MANCHESTER R AND D PARTNERSHIP, 2731 EMERSON DRIVE, DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:FERGASON, JAMES L.; REEL/FRAME:004264/0281 EFFECTIVE DATE : 19840227
US4707080 A	19840302	LSAS	AS	ASSIGNMENT	OWNER NAME : MANCHESTER R AND D PARTNERSHIP, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:FERGASON, JAMES L.; REEL/FRAME:004264/0281 EFFECTIVE DATE : 19840227
US4707080 A	19870817	LSAS	AS	ASSIGNMENT	OWNER NAME : MANCHESTER R AND D PARTNERSHIP, OHIO DESCRIPTION : RE-RECORD

					OF INSTRUMENT RECORDED MARCH 2, 1984, REEL 4264 FRAME 0281, TO CORRECT THE HABITAT OF ASSIGNEE; ASSIGNOR:FERGASON, JAMES, L.,; REEL/FRAME:004748/0071 EFFECTIVE DATE : 19870731
US4707080 A	19870817	LSAS	AS	ASSIGNMENT	OWNER NAME : MANCHESTER R AND D PARTNERSHIP, 2731 EMERSON DRIVE, DESCRIPTION : RE-RECORD OF INSTRUMENT RECORDED MARCH 2, 1984, REEL 4264 FRAME 0281, TO CORRECT THE HABITAT OF ASSIGNEE; ASSIGNOR:FERGASON, JAMES, L.,; REEL/FRAME:004748/0071 EFFECTIVE DATE : 19870731
US4707080 A	19910415	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4707080 A	19930413	LSRE	CC	CERTIFICATE OF CORRECTION	
US4707080 A	19950206	LSAS	AS	ASSIGNMENT	OWNER NAME : MANCHESTER R AND D LIMITED PARTNERSHIP, OHIO DESCRIPTION : CHANGE OF NAME; ASSIGNOR:MANCHESTER R AND D PARTNERSHIP; REEL/FRAME:007308/0142 EFFECTIVE DATE : 19920511
US4707080 A	19950329	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US4707080 A	19990405	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US4810063 A	19890307	LSGT	+	granted / extensions (spc, cpc, pte)	
US4810063 A	19920831	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4810063 A	19950206	LSAS	AS	ASSIGNMENT	OWNER NAME : MANCHESTER R AND D LIMITED PARTNERSHIP, OHIO DESCRIPTION : CHANGE OF NAME; ASSIGNOR:MANCHESTER R AND D PARTNERSHIP; REEL/FRAME:007308/0142 EFFECTIVE DATE : 19920511
US4810063 A	19960819	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US4810063 A	20000818	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US4844596 A	19890704	LSGT	+	granted / extensions (spc, cpc, pte)	
US4844596 A	19921207	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4844596 A	19950206	LSAS	AS	ASSIGNMENT	OWNER NAME : MANCHESTER R AND D LIMITED PARTNERSHIP, OHIO DESCRIPTION : CHANGE OF NAME; ASSIGNOR:MANCHESTER R AND D PARTNERSHIP; REEL/FRAME:007308/0142 EFFECTIVE DATE : 19920511
US4844596 A	19961223	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US4844596 A	20010102	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US4884873 A	19891205	LSGT	+	granted / extensions (spc, cpc, pte)	
US4884873 A	19930524	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US4884873 A	19950206	LSAS	AS	ASSIGNMENT	OWNER NAME : MANCHESTER R AND D LIMITED PARTNERSHIP, OHIO DESCRIPTION : CHANGE OF NAME; ASSIGNOR:MANCHESTER R AND D PARTNERSHIP; REEL/FRAME:007308/0142 EFFECTIVE DATE : 19920511

US4884873 A	19970602	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US4884873 A	20011205	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US4884873 A	20020205	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20011205
US5082351 A	19920121	LSGT	+	granted / extensions (spc, cpc, pte)	
US5082351 A	19890414	LSAS	AS	ASSIGNMENT	OWNER NAME : MANCHESTER R AND D PARTNERSHIP, AN OH LIMITED PARTNE DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:FERGASON, JAMES L.; REEL/FRAME:005071/0417 EFFECTIVE DATE : 19890407
US5082351 A	19950206	LSAS	AS	ASSIGNMENT	OWNER NAME : MANCHESTER R AND D LIMITED PARTNERSHIP, OHIO DESCRIPTION : CHANGE OF NAME; ASSIGNOR:MANCHESTER R AND D PARTNERSHIP; REEL/FRAME:007308/0142 EFFECTIVE DATE : 19920511
US5082351 A	19950605	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5082351 A	19990405	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5082351 A	20040121	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5082351 A	20040316	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20040121
US5089904 A	19920218	LSGT	+	granted / extensions (spc, cpc, pte)	
US5089904 A	19950206	LSAS	AS	ASSIGNMENT	OWNER NAME : MANCHESTER R AND D LIMITED PARTNERSHIP, OHIO DESCRIPTION : CHANGE OF NAME; ASSIGNOR:MANCHESTER R AND D PARTNERSHIP; REEL/FRAME:007308/0142 EFFECTIVE DATE : 19920511
US5089904 A	19950228	LSRE	CC	CERTIFICATE OF CORRECTION	
US5089904 A	19950703	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5089904 A	19990730	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5089904 A	20040218	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5089904 A	20040413	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20040218
WO8301016 A1	19830331	LSPB	+	published / reissued	
WO8301016 A1	19830502	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1982903099 COUNTRY OF REF DOCUMENT : EP
WO8301016 A1	19830914	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1982903099 COUNTRY OF REF DOCUMENT : EP
WO8301016 A1	19910130	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1982903099 COUNTRY OF REF DOCUMENT : EP
WO8503944 A1	19850912	LSPB	+	published / reissued	
WO8503944 A1	19851104	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1985901686 COUNTRY OF REF DOCUMENT : EP
WO8503944 A1	19860326	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN	REF DOCUMENT NUMBER : 1985901686

				NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : EP
WO8503944 A1	19940504	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1985901686 COUNTRY OF REF DOCUMENT : EP

Title: N-SUBSTITUTED ACRYLAMIDE COPOLYMER

Abstract: Source: US5202193A A linear random N-substituted acrylamide copolymer comprising 65 to 99 percent by mole of ethylene units, 1 to 15 percent by mole of acrylate units and 1 to 35 percent by mole of acrylamide units, the copolymer having a weight average molecular weight of 1000 to 50000, and an aqueous composition, a resin film, a laminate, recording paper and a foamed **article** comprising the N-substituted acrylamide copolymer, respectively. The N-substituted acrylamide copolymer is excellent in antistatic ability for thermoplastic resins and does not lower physical properties such as transparency and elongation of films and **articles** which are formed from a thermoplastic resin. Moreover, the N-substituted acrylamide copolymer is excellent in anti-blocking ability so that the copolymer can be suitably used for various uses.

Classifications:

International (IPC 8-9): B32B27/10 B32B27/28 B32B27/32 B32B5/18 B32B5/32 B65D65/40 C08F10/14 C08F20/52 C08F210/00 C08F210/02 C08F220/60 C08F8/00 C08F8/44 C08J5/18 C08J9/04 C08L101/00 C08L23/00 C08L23/04 C08L23/08 C08L29/00 C08L33/04 C08L33/06 C08L33/24 C09K3/16 C23C14/20 D21H19/10 D21H19/20 D21H21/14 D21H27/00 G03G5/02 G03G5/10 G03G7/00 H01B1/20 (Advanced/Invention); B32B27/10 B32B27/28 B32B27/32 B32B5/18 B32B5/22 B65D65/40 C08F10/00 C08F20/00 C08F210/00 C08F220/00 C08F8/00 C08J5/18 C08J9/00 C08L101/00 C08L23/00 C08L29/00 C08L33/00 C09K3/16 C23C14/20 D21H19/00 D21H21/14 D21H27/00 G03G7/00 H01B1/20 (Core/Invention)

International (IPC 1-7): B32B27/10 B32B27/28 B32B27/32 B32B27/34 B32B5/18 B32B5/32 B65D65/40 C08F210/00 C08F210/02 C08F220/12 C08F220/14 C08F220/18 C08F220/56 C08F220/60 C08F8/44 C08J5/18 C08J9/04 C08L101/00 C08L23/04 C08L23/08 C08L33/06 C08L33/24 C09K3/16 C23C14/20 D21H19/10 D21H19/20 D21H21/14 D21H27/00 G03G5/02 G03G5/10 G03G7/00 H01B1/12 H01B1/20

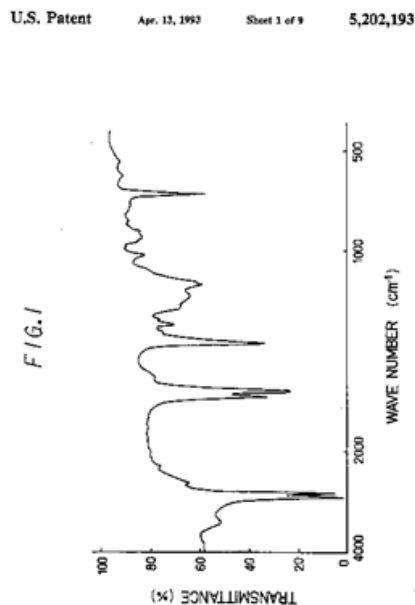
CPC: Y10T428/249953 Y10T428/249981 Y10T428/31725

Y10T428/31783 C08F210/02 C08F8/44

European: C08F210/02 C08F8/44

US: 428/304.4 428/316.6 428/474.4 428/479.6

PatBase - US5202193_A



Family:

Publication number	Publication date	Application number	Application date
DE69120042 D1	19960711	DE19916020042	19911126
DE69120042 T2	19961017	DE19916020042T	19911126
EP0492163 A2	19920701	EP19910120203	19911126
EP0492163 A3	19921028	EP19910120203	19911126
EP0492163 B1	19960605	EP19910120203	19911126
HK1005314 A1	19981231	HK19980104025	19980509
JP2045158 C3	19960409	JP19900331072	19901128
JP2060221 C3	19960610	JP19900331073	19901128
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JP5016303 A2	19930126	JP19910307846	19911122
JP5044018 A2	19930223	JP19910307845	19911122
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JP7094158 B4	19951011	JP19900331073	19901128
JP7094159 B4	19951011	JP19900331074	19901128
KR100186870 B1	19990515	KR19910021461	19911127
US5202193 A	19930413	US19910797868	19911126

Priority:

JP19900331072 19901128 JP19900331073 19901128 JP19900331074 19901128
 JP19900331076 19901128 JP19900331077 19901128 JP19900331075 19901128

JP19910307846 19911122 JP19900331078 19901128 JP19900331079 19901128
JP19900331083 19901128 JP19900331085 19901128 JP19900331084 19901128

Probable Assignee: DAIICHI KOGYO SEIYAKU KK

Assignee(s): (std): DAI ICHI KOGYO SEIYAKU CO LTD ; KAI ICHI KOGYO SEIYAKU CO LTD ; TORAY INDUSTRIES ; TORAY INDUSTRIES INC ; TORAY IND

Assignee(s): TORAY IND INC ; TORE KK ; TORAY INDUSTRIES INC TOKIO TOKYO JP ; DAI ICHI KOGYO SEIYAKU CO LTD KYOTO JP ; DAIICHI KOGYO SEIYAKU KK ; DAI ICHI KOGYO SEIYAKU CO

Inventor(s): (std): DOYAMA TOSHIAKI ; HIDEYUKI SUMI ; HIROSHI HOTTA ; HOTTA HIROSHI ; KAMIJUKKOKU SHIGEO ; MANABU KIKUTA ; MASASHI TAKEDA ; NARIO UEJYUKKOKU ; OSAMU WADA ; SHOICHI WAKATAKE ; SUMI HIDEYUKI ; KANJI TANAKA ; KIKUTA MANABU ; TAKEDA MASASHI ; TOMOMI UEDA ; TOSHIAKI DOYAMA ; UEDA TOMOMI ; TANAKA KANJI ; UEJYUKKOKU NARIO ; UEJYUKKOKU NARIO ; WAKATAKE SCHOICHI ; WAKATAKE SHOICHI ; WADA OSAMU

Inventor(s): WADA OSAMU NAGOYA SHI AICHI KEN JP ; WAKATAKE SHOICHI YAMASHINA KU KYOTO SHI KYOTO FU J ; WAKATAKE SHOICHI YAMASHINA KU KYOTO SHI KYOTO FU JP ; WAKATAKE SHOICHI YAMASHINA KU KYOTO SHI KYOTO... ; UEJYUKKOKU NARIO RYUO CHO GAMOU GUN SHIGA KEN JP ; TANAKA KANJI KURITA GUN SHIGA KEN JP ; UEDA TOMOMI UKYO KU KYOTO SHI KYOTO FU JP ; TAKEDA MASASHI KOKA GUN SHIGA KEN JP ; KIKUTA MANABU TANABE CHO TSUZUKI GUN KYOTO FU JP ; SUMI HIDEYUKI OSAKA SHI OSAKA FU JP ; KAMIJUTSUKOKU SHIGEO ; HOTTA HIROSHI NISHIKYO KU KYOTO SHI KYOTO FU JP ; HOTSUTA HIROSHI ; DOYAMA TOSHIAKI KUSATSU SHI SHIGA KEN JP

Designated states: BE DE FR GB

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
DE69120042 D1	19970703	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69120042 D1	20050421	LSAS	8327	CHANGE IN THE PERSON/NAME/ADDRESS OF THE PATENT OWNER	OWNER NAME : DAI-ICHI KOGYO SEIYAKU CO., LTD., KYOTO, JP
DE69120042 D1	20100916	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE69120042 T2	19961017	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0492163 A2	19920701	LSPB	+	published / reissued	
EP0492163 A2	19930623	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19930420
EP0492163 A2	19940720	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 19940607
EP0492163 A2	19970528	LSGT	+26N	NO OPPOSITION FILED	
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EP0492163 A2	20090331	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : BE PAYMENT DATE : 20081110 YEAR OF FEE PAYMENT : 18
EP0492163 A2	20090430	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : FR PAYMENT DATE : 20081112 YEAR OF FEE PAYMENT : 18
EP0492163 A2	20090630	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : GB PAYMENT DATE : 20081126 YEAR OF FEE PAYMENT : 18
EP0492163 A2	20100531	LSLE	-BERE	BE: LAPSED	OWNER NAME : *DAI-ICHI KOGYO SEIYAKU CO. LTD EFFECTIVE DATE : 20091130
EP0492163 A2	20100728	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	EFFECTIVE DATE : 20091126
EP0492163 A2	20100827	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20100730
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HK1005314 A1	20041215	LSFE	+PF	PATENT IN FORCE	
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JP2045158 C3	19960409	LSGT	+	granted / extensions (spc, cpc, pte)	
JP2060221 C3	19960610	LSGT	+	granted / extensions (spc, cpc, pte)	
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JP2576078 B2	19970129	LSGT	+	granted / extensions (spc, cpc, pte)	
JP2581309 B2	19970212	LSGT	+	granted / extensions (spc, cpc, pte)	
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JP2600642 B2	19970416	LSGT	+	granted / extensions (spc, cpc, pte)	
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JP2945468 B2	19990906	LSGT	+	granted / extensions (spc, cpc, pte)	
JP2945468 B2	20050419	LSFE	+R250	RECEIPT OF ANNUAL FEES	DESCRIPTION : JAPANESE INTERMEDIATE CODE: R250
JP2945468 B2	20080605	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20080625 YEAR OF FEE PAYMENT : 9
JP2945468 B2	20080610	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20100625 YEAR OF FEE PAYMENT : 11
JP2950607 B2	19990920	LSGT	+	granted / extensions (spc, cpc, pte)	
JP2950607 B2	20050709	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
JP4195141 A2	19920715	LSPB	+	published / reissued	
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JP4197626 A2	19920717	LSPB	+	published / reissued	
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JP4198309 A2	19920717	LSPB	+	published / reissued	
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JP5005066 A2	19930114	LSPB	+	published / reissued	
JP5016303 A2	19930126	LSPB	+	published / reissued	
JP5044018 A2	19930223	LSPB	+	published / reissued	
JP7074284 B4	19950809	LSPB	+	published / reissued	
JP7094158 B4	19951011	LSPB	+	published / reissued	
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KR100186870 B1	19990515	LSGT	+	granted / extensions (spc, cpc, pte)	
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KR100186870 B1	19980529	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR100186870 B1	19980930	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR100186870 B1	19981230	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR100186870 B1	20081128	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20081128 YEAR OF FEE PAYMENT : 11
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US5202193 A	19930413	LSGT	+	granted / extensions (spc, cpc, pte)	
US5202193 A	19911126	LSAS	AS	ASSIGNMENT	OWNER NAME : DAI-ICHI KOGYO SEIYAKU CO., LTD, JAPAN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNORS:SUMI, HIDEYUKI; HOTTA, HIROSHI; KIKUTA, MANABU; AND OTHERS; REEL/FRAME:005932/0247 EFFECTIVE DATE : 19911111
US5202193 A	19940405	LSRE	CC	CERTIFICATE OF CORRECTION	
US5202193 A	19961011	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5202193 A	20001013	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5202193 A	20040927	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12

Title: **ABSORBENT** FOAM MATERIALS FOR AQUEOUS BODY FLUIDS AND **ABSORBENT ARTICLES** CONTAINING SUCH MATERIALS

Abstract: Source: US5260345A Disclosed are **absorbent** foam materials suitable for use as or in the **absorbent** cores of **absorbent articles**, such as diapers which absorb and retain aqueous body fluids. Such foam materials comprise hydrophilic, flexible open-celled structures which are preferably prepared by polymerizing high internal phase (HIPE) water-in-oil emulsions. Such foam materials have a pore volume of from about 12 to 100 mL/g, and a capillary suction specific surface area of from about 0.5 to 5.0 m²/g. These materials also exhibit a resistance to compression deflection such that a confining pressure of 5.1 kPa produces after 15 minutes a strain of from about 5 percent to 95 percent compression when the material is saturated at 37 DEG C. to its free **absorbent** capacity with synthetic urine.

Classifications:

International (IPC 8-9): A61F13/15 A61F13/53 A61F13/56 A61L15/22 A61L15/42 C08F12/00 C08F2/32 C08F20/18 C08F212/06 C08F212/08 C08F212/34 C08F220/10 C08F236/04 C08J9/00 C08L101/00 C08L25/08 (Advanced/Invention); C08F12/00 C08J9/00 C08L101/00 (Advanced/Non-invention); A61F13/15 A61F13/56 A61L15/16 C08F12/00 C08F2/32 C08F20/00 C08F212/00 C08F220/00 C08F236/00 C08J9/00 C08L101/00 (Core/Invention)

International (IPC 1-7): A41D20/00 A61F13/15 A61F13/46 A61F13/53 A61L15/00 A61L15/16 A61L15/22 A61L15/24 A61L15/26 A61L15/42 B32B3/26 C08F2/32 C08F20/18 C08F212/06 C08F212/08 C08F212/34 C08F236/04 C08F36/04 C08J9/00 C08J9/28 C08L101/00 C08L25/08

CPC: Y10S521/905 Y10S521/918 A61F13/49012 A61F13/532 A61F13/535 C08F2/32 A61F13/15203 A61F13/53 A61F13/5622 A61F2013/1539 A61F2013/530007 A61F2013/530737 A61F2013/53081 A61L15/425 Y10T428/249975 Y10T428/249978 Y10T428/249991 Y10T428/249993 Y10T442/647 Y10T442/649 A61F2013/530036 A61F2013/530459 A61F2013/530467 A61F2013/530474 A61F2013/530481 A61F2013/530708 A61F2013/530802 A61F2013/530817 A61F2013/530839 A61F2013/530854 Y10T428/249981

European: A61F13/15J A61F13/49D2B2 A61F13/53 A61F13/532 A61F13/535 A61F13/56C A61L15/42E C08F2/32 K61F13/15J8D2 K61F13/53L K61F13/53L4 K61F13/53P2A K61F13/53P2B K61F13/53P2C K61F13/53Q K61F13/53Q8 K61F13/53Q8B K61F13/53R K61F13/53R1 K61F13/53R1A K61F13/53R2 K61F13/53R4

US: 428/286 428/298 428/314.2 428/315.5 428/316.6 428/319.3 428/319.9 442/370 442/372 521/148 521/149 521/150 521/62 521/63 521/64 521/905 521/918 521/92 604/369

PatBase - US5260345_A

U.S. Patent Nov. 9, 1993 Sheet 1 of 3 5,260,345

Fig. 1

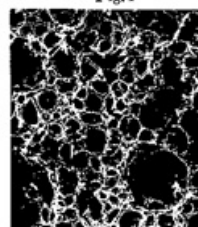
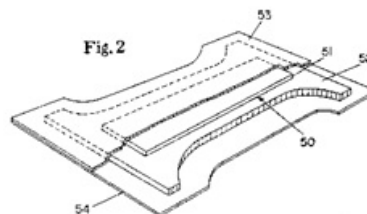


Fig. 2



Family:

Publication number	Publication date	Application number	Application date
AU199224755 A1	19930316	AU19920024755	19920807
AU670244 B2	19960711	AU19920024755	19920807
BRPI9206375 A	19950530	BR1992PI06375	19920807
CA2114958 AA	19940203	CA19922114958	19920807
CA2114958 C	19980331	CA19922114958	19920807
CN1070922 A	19930414	CN19921010631	19920812
CN1128641 C	20031126	CN19961017999	19961228
CN1168292 A	19971224	CN19961017999	19920812
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EP0598833 A1	19940601	EP19920918355	19920807
EP0598833 B1	19971029	EP19920918355	19920807
FI940649 A	19940211	FI19940000649	19940211
FI940649 A0	19940211	FI19940000649	19940211
HK1004337 A1	19981120	HK19980103549	19980427
HU218260 B	20000628	HU19940000398	19920807
HU71537 A2	19951228	HU19940000398	19920807
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JP3231320 B2	20011119	JP19930504392T	19920807
JP6510075 T2	19941110	JP19930504392T	19920807
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NO940450 A	19940411	NO19940000450	19940210
NO940450 A0	19940210	NO19940000450	19940210
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PT8581 U	19930331	PT19920008581U	19920812
RU2127102 C1	19990310	RU19940016523	19920807
SK18294 A3	19941005	SK19940000182	19920807
TR27268 A	19941222	TR19920000788	19920812

US5260345 A	19931109	US19910743839	19910812
US5268224 A	19931207	US19930042363	19930402
WO9304092 A1	19930304	WO1992US06710	19920807

Priority:

US19910743839 19910812 US19930042363 19930402 WO1992US06710 19920807

Probable Assignee: PROCTER AND GAMBLE

Assignee(s): (std): PROCTER AND GAMBLE CO THE ; THE PROCTER AND GAMBLE CO ; THE PROCTER AND GAMBLE COMPANY ; PROCTER AND GAMBLE COMPANY THE ; PROCTER AND GAMBLE CO ; PROCTER AND GAMBLE

Assignee(s): PROCTOR AND GAMBLE CO ; THE PROCTOR AND GAMBLE COMPANY ; YOUNG GERALD A ; THOMPSON HUGH A ; STONE KEITH J ; THE PROCTOR AND GAMBLE CO ; DESMARAI THOMAS A ; DYER JOHN C ; DZE PROKTER EHND GEHMBL KOMPANI ; LAVON GARY D

Inventor(s): (std): DESMARAI THOMAS A ; DESMARAI THOMAS A ; DESMARAI THOMAS ALLEN ; DYER JOHN C ; DYER JOHN COLLINS ; DZHERAL D AL FRED JANG ; DZHON KOLLINS DAJER ; ET AL ; GA YOUNG ; GARI DIN LAVON ; GARY DEAN LAVON ; GD LAVON ; GERALD ALFRED YOUNG ; H A THOMPSON ; HA THOMPSON ; HUGH ANSLEY THOMPSON ; JC DYER ; JOHN COLLINS DYER ; K J STONE ; KEITH JOSEPH STONE ; KH JU EHNSLI TOMPSON ; KIT DZHOZEF STOUN ; KJ STONE ; LAVON GARY D ; LAVON GARY DEAN ; STONE JOSEPH ; STONE K J ; STONE KEITH J ; STONE KEITH JOSEPH ; T A DESMARAI ; TA DESMARAI ; THOMAS ALLEN DESMARAI ; THOMPSON H A ; THOMPSON HUGH A ; THOMPSON HUGH ANSLEY ; TOMAS ALLEN DEMARE ; YOUNG GERALD A ; YOUNG GERALD ALFRED

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; SIM AND MCBURNEY

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 IE IT JP KP KR LI LK LU MC MG ML MN MR MW NL NO PL RO RU SD SE SN TD TG

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU199224755 A1	19930316	LSPB	+	published / reissued	
AU670244 B2	19960711	LSGT	+	granted / extensions (spc, cpc, pte)	
AU670244 B2	20040311	LSLE	-MK14	PATENT CEASED SECTION 143(A) (ANNUAL FEES NOT PAID) OR EXPIRED	
BRPI9206375 A	19950530	LSPB	+	published / reissued	
BRPI9206375 A	19950926	LSES	+EE	REQUEST FOR EXAMINATION	
BRPI9206375 A	20000912	LSWD	-HIFP	PATENT GRANT CANCELLED	
BRPI9206375 A	20000912	LSRV	-MFC	GRANT ANNULLED	
BRPI9206375 A	20010612	LSGT	+FF	DECISION: INTENTION TO GRANT	
BRPI9206375 A	20011016	LSGT	+FG9A	PATENT OR CERTIFICATE OF ADDITION GRANTED	
BRPI9206375 A	20110125	LSFE	B24C	PATENT ANNUAL FEE: CALLING FOR RESTORATION	DESCRIPTION : REFERENTE 12A, 13A, 14A, 15A, 16A, 17A E 18A ANUIDADE(S).
BRPI9206375 A	20140902	LSLE	-B24H	LAPSE BECAUSE OF NON-PAYMENT OF ANNUAL FEES (DEFINITELY: ART 78 IV LPI)	
CA2114958 AA	19940203	LSPB	+	published / reissued	
CA2114958 AA	19940203	LSNP	+AFNE	NATIONAL PHASE ENTRY	
CA2114958 AA	19940203	LSES	+EEER	EXAMINATION REQUEST	
CA2114958 AA	20120807	LSLE	-MKEX	EXPIRY	
CA2114958 AA	20120918	LSLE	-MKEX	EXPIRY	EFFECTIVE DATE : 20120807
CA2114958 C	19980331	LSGT	+	granted / extensions (spc, cpc, pte)	
CN1070922 A	19930414	LSPB	+	published / reissued	
CN1070922 A	19930414	LSPB	+C06	PUBLICATION	

CN1070922 A	19981021	LSDW	-C01	DEEMED WITHDRAWAL OF PATENT APPLICATION (PATENT LAW 1993)	
CN1128641 C	20031126	LSGT	+	granted / extensions (spc, cpc, pte)	
CN1128641 C	19971224	LSPB	+C06	PUBLICATION	
CN1128641 C	20031126	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN1128641 C	20120919	LSLE	-C17	CESSATION OF PATENT RIGHT	
CN1168292 A	19971224	LSPB	+	published / reissued	
CN1168292 A	19971224	LSPB	+	published / reissued	
CZ290198 B6	20020612	LSGT	+	granted / extensions (spc, cpc, pte)	
CZ290198 B6	20040616	LSLE	-MM4A	Lapse of patent due to failure of payment of fees	EFFECTIVE DATE : 20030807
CZ9400304 A3	19940713	LSPB	+	published / reissued	
EG19703 A	19950930	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0598833 A1	19940601	LSPB	+	published / reissued	
EP0598833 A1	19940601	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19940127
EP0598833 A1	19950621	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 19950508
EP0598833 A1	19971031	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP0598833 A1	19980216	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2110518 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 FORMAT OF REF DOCUMENT (F/P) : P
EP0598833 A1	19981021	LSGT	+26N	NO OPPOSITION FILED	
EP0598833 A1	20020614	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : DK PAYMENT DATE : 20020614 YEAR OF FEE PAYMENT : 11
EP0598833 A1	20020626	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : AT PAYMENT DATE : 20020626 YEAR OF FEE PAYMENT : 11
EP0598833 A1	20020722	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : IE PAYMENT DATE : 20020722 YEAR OF FEE PAYMENT : 11
EP0598833 A1	20020723	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : GR PAYMENT DATE : 20020723 YEAR OF FEE PAYMENT : 11
EP0598833 A1	20020910	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : CH PAYMENT DATE : 20020910 YEAR OF FEE PAYMENT : 11
EP0598833 A1	20020913	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : BE PAYMENT DATE : 20020913 YEAR OF FEE PAYMENT : 11
EP0598833 A1	20020918	LSFE	+PGFP	POSTGRANT: ANNUAL FEES	REF COUNTRY CODE : LU PAYMENT DATE : 20020918

				PAID TO NATIONAL OFFICE	YEAR OF FEE PAYMENT : 11
EP0598833 A1	20030807	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : AT DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20030807
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EP0598833 A1	20030831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : CH DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20030831
EP0598833 A1	20030831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : BE DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20030831
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EP0598833 A1	20030901	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : DK DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20030901
EP0598833 A1	20040229	LSLE	-BERE	BE: LAPSED	OWNER NAME : THE *PROCTER AND GAMBLE CY EFFECTIVE DATE : 20030831
EP0598833 A1	20040303	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : GR DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20040303
EP0598833 A1	20040329	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EBP
EP0598833 A1	20040415	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0598833 A1	20040602	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP0598833 A1	20070806	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : ES PAYMENT DATE : 20070806 YEAR OF FEE PAYMENT : 16
EP0598833 A1	20080131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : IT PAYMENT DATE : 20070814 YEAR OF FEE PAYMENT : 16
EP0598833 A1	20080131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL	REF COUNTRY CODE : NL PAYMENT DATE : 20070710 YEAR OF FEE PAYMENT : 16

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EP0598833 A1	20080131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : SE PAYMENT DATE : 20070802 YEAR OF FEE PAYMENT : 16
EP0598833 A1	20090414	LSLE	-EUG	SE: EUROPEAN PATENT HAS LAPSED	
EP0598833 A1	20090506	LSLE	-NLV4	NL: LAPSED OR ANULLED DUE TO NON- PAYMENT OF THE ANNUAL FEE	EFFECTIVE DATE : 20090301
EP0598833 A1	20090529	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : NL DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20090301
EP0598833 A1	20090831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : IT DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20080807
EP0598833 A1	20091027	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20080808
EP0598833 A1	20091030	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : FR PAYMENT DATE : 20090806 YEAR OF FEE PAYMENT : 18
EP0598833 A1	20091130	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : DE PAYMENT DATE : 20090831 YEAR OF FEE PAYMENT : 18
EP0598833 A1	20091130	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : GB PAYMENT DATE : 20090708 YEAR OF FEE PAYMENT : 18
EP0598833 A1	20100129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : ES DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20080808
EP0598833 A1	20100730	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : SE DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20080808
EP0598833 A1	20101130	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : DE PAYMENT DATE : 20100831 YEAR OF FEE PAYMENT : 19
EP0598833 A1	20101130	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : FR PAYMENT DATE : 20100819 YEAR OF FEE PAYMENT : 19
EP0598833 A1	20101231	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : GB PAYMENT DATE : 20100708 YEAR OF FEE PAYMENT : 19
EP0598833 A1	20111130	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : DE PAYMENT DATE : 20110831 YEAR OF FEE PAYMENT : 20
EP0598833 A1	20111130	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : GB PAYMENT DATE : 20110722 YEAR OF FEE PAYMENT : 20

EP0598833 A1	20111130	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : FR PAYMENT DATE : 20110811 YEAR OF FEE PAYMENT : 20
EP0598833 A1	20120808	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R071 REF DOCUMENT NUMBER : 69222945 COUNTRY OF REF DOCUMENT : DE
EP0598833 A1	20120829	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20120806
EP0598833 A1	20121031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : GB DESCRIPTION : LAPSE BECAUSE OF EXPIRATION OF PROTECTION EFFECTIVE DATE : 20120806
EP0598833 A1	20121031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : DE DESCRIPTION : LAPSE BECAUSE OF EXPIRATION OF PROTECTION EFFECTIVE DATE : 20120808
EP0598833 B1	19971029	LSGT	+	granted / extensions (spc, cpc, pte)	
FI940649 A	19940211	LSPB	+	published / reissued	
HK1004337 A1	19981120	LSGT	+	granted / extensions (spc, cpc, pte)	
HK1004337 A1	20041215	LSLE	-PC	PATENT CEASED (I.E. PATENT HAS LAPSED DUE TO THE FAILURE TO PAY THE RENEWAL FEE)	
HU218260 B	20000628	LSGT	+	granted / extensions (spc, cpc, pte)	
HU71537 A2	19951228	LSPB	+	published / reissued	
HU71537 A2	20040528	LSLE	HMM4	CANCELLATION OF FINAL PROT. DUE TO NON- PAYMENT OF FEE	
JP3231320 B2	20011119	LSGT	+	granted / extensions (spc, cpc, pte)	
JP3231320 B2	20040831	LSFE	+R250	RECEIPT OF ANNUAL FEES	DESCRIPTION : JAPANESE INTERMEDIATE CODE: R250
JP3231320 B2	20070823	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20070914 YEAR OF FEE PAYMENT : 6
JP3231320 B2	20070828	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20080914 YEAR OF FEE PAYMENT : 7
JP3231320 B2	20080916	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20090914 YEAR OF FEE PAYMENT : 8
JP3231320 B2	20090915	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20100914 YEAR OF FEE PAYMENT : 9
JP3231320 B2	20100921	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20110914 YEAR OF FEE PAYMENT : 10
JP3231320 B2	20100921	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20110914 YEAR OF FEE PAYMENT : 10

JP3231320 B2	20110906	LSFE	+FPAY	OF DATABASE) RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20120914 YEAR OF FEE PAYMENT : 11
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JP3231320 B2	20120807	LSLE	-EXPY	CANCELLATION BECAUSE OF COMPLETION OF TERM	
JP6510075 T2	19941110	LSPB	+	published / reissued	
KR100257417 B1	20000515	LSGT	+	granted / extensions (spc, cpc, pte)	
MA22622 A1	19930401	LSPB	+	published / reissued	
MX9204671 A1	19930301	LSPB	+	published / reissued	
NO305637 B1	19990705	LSGT	+	granted / extensions (spc, cpc, pte)	
NO305637 B1	20030407	LSLE	-MM1K	LAPSED BY NOT PAYING THE ANNUAL FEES	DESCRIPTION : LAPSED IN FEBRUARY 2003
NO940450 A	19940411	LSPB	+	published / reissued	
NZ243903 A	19950926	LSPB	+	published / reissued	
NZ243903 A	20020726	LSFE	+RENEW	RENEWAL (RENEWAL FEES ACCEPTED)	
PL170808 B1	19970131	LSGT	+	granted / extensions (spc, cpc, pte)	
PT101759 A	19960131	LSPB	+	published / reissued	
PT101759 A	19960131	LSPB	+BB1A	LAYING OPEN OF PATENT APPLICATION	EFFECTIVE DATE : 19951025
PT101759 A	19971031	LSGT	+FG3A	PATENT GRANTED, DATE OF GRANTING	EFFECTIVE DATE : 19970718
PT101759 A	20040531	LSLE	-MM3A	ANNULMENT OR LAPSE	DESCRIPTION : LAPSE DUE TO NON- PAYMENT OF FEES EFFECTIVE DATE : 20040229
PT101759 B	19971031	LSGT	+	granted / extensions (spc, cpc, pte)	
PT8581 U	19930331	LSPB	+	published / reissued	
PT8581 U	19930331	LSPB	+BB1K	LAYING OPEN OF UTILITY MODEL APPLICATION	EFFECTIVE DATE : 19921119
RU2127102 C1	19990310	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2127102 C1	20050510	LSLE	-MM4A	THE PATENT IS INVALID DUE TO NON- PAYMENT OF FEES	EFFECTIVE DATE : 20030808
SK18294 A3	19941005	LSPB	+	published / reissued	
TR27268 A	19941222	LSGT	+	granted / extensions (spc, cpc, pte)	
US5260345 A	19931109	LSGT	+	granted / extensions (spc, cpc, pte)	
US5260345 A	19921209	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNORS:DESMARAIS, THOMAS A.; STONE, KEITH J.; THOMPSON, HUGH

US5260345 A	19940412	LSRE	CC	CERTIFICATE OF CORRECTION	
US5260345 A	19970429	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5260345 A	20010426	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5260345 A	20050329	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US5268224 A	19931207	LSGT	+	granted / extensions (spc, cpc, pte)	
US5268224 A	19970527	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5268224 A	20010529	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5268224 A	20050329	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
WO9304092 A1	19930304	LSPB	+	published / reissued	
WO9304092 A1	19940127	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1992918355 COUNTRY OF REF DOCUMENT : EP
WO9304092 A1	19940203	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : CA REF DOCUMENT NUMBER : 2114958 KIND CODE OF REF DOCUMENT : A FORMAT OF REF DOCUMENT (F/P) : F
WO9304092 A1	19940203	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2114958 COUNTRY OF REF DOCUMENT : CA
WO9304092 A1	19940211	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PV1994- 304 COUNTRY OF REF DOCUMENT : CZ
WO9304092 A1	19940211	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 940649 COUNTRY OF REF DOCUMENT : FI
WO9304092 A1	19940215	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 18294 COUNTRY OF REF DOCUMENT : SK KIND CODE OF REF DOCUMENT : A
WO9304092 A1	19940215	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 18294 COUNTRY OF REF DOCUMENT : SK
WO9304092 A1	19940601	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1992918355 COUNTRY OF REF DOCUMENT : EP
WO9304092 A1	19940713	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : PV1994- 304 COUNTRY OF REF DOCUMENT : CZ
WO9304092 A1	19971029	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1992918355 COUNTRY OF REF DOCUMENT : EP
WO9304092 A1	20020612	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : PV1994- 304 COUNTRY OF REF DOCUMENT : CZ

Title: APPARATUS AND METHOD FOR INSPECTING PRE-FASTENED **ARTICLES**

Abstract: Source: US2003168614A In a method and apparatus for making and inspecting pre-fastened **articles**, such as disposable training pants, having at least two generally flexible elements capable of connection with each other during initial assembly of the **article**, the elements are arranged in overlapping relationship with each other and connected together to define an engagement seam of the **article**. The **article** is arranged to define an interior space thereof whereby the interior space is bounded in part by the engagement seam. The elements are irradiated at the engagement seam by a radiation source within the interior space of the **article** and an image of the irradiated engagement seam is captured by an image capturing device. In one embodiment, the image capturing device is positioned within the interior space of the **article** and the radiation source is either within the interior space or exterior of the **article**.

Classifications:

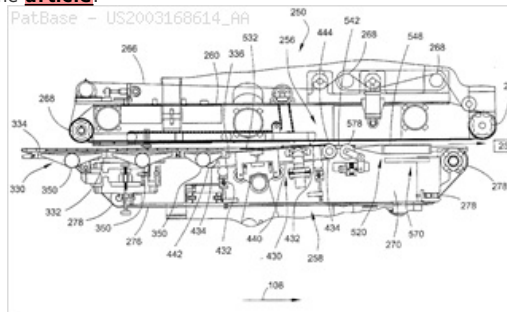
International (IPC 8-9): A61F13/15 B65H23/00 B65H39/00
G01B11/03 G01B15/00 G01N21/00 G01N21/84 G01N21/86
G01N21/89 G05B19/00 G21K5/04 (Advanced/Invention);
A61F13/15 B65H39/00 G01B11/03 G01N21/84 G05B19/00
G21K5/04 (Core/Invention)

International (IPC 1-7): A61F13/15 A61F13/20 A61N5/00 B32B31/00
B65H23/00 B65H39/00 G01B11/14 G01J5/02 G01N21/00 G01N21/84
G01N21/86 G05B19/00 G06K9/00 G21G5/00

CPC: A61F13/15756 A61F13/15 G01N21/84 G01N2021/8887
G01N21/3563 G21K5/04 A61F13/15772 G01N21/35 G01N21/8806
G01N21/95

European: A61F13/15 A61F13/15M7 A61F13/15M9 G01N21/84
G01N21/88K G01N21/95 G21K5/04 S01N21/35 S01N21/88P6

US: 156/351 156/64 250/341.1 250/341.6 250/341.8 250/492.1
250/492.100P 250/559.29 250/559.3 250/559.4 264/410 356/429
356/431 356/614 356/614P 356/615 382/111 604/358

**Family:**

Publication number	Publication date	Application number	Application date
AR038731 AA	20050126	AR2003P100741	20030305
AR038732 AA	20050126	AR2003P100742	20030305
AR038733 AA	20050126	AR2003P100743	20030305
AU2003212461 AA	20030929	AU20030212461	20030228
AU2003217792 AA	20030929	AU20030217792	20030228
AU2003217805 AA	20030929	AU20030217805	20030228
AU2003217811 AA	20030929	AU20030217811	20030228
AU2003219943 AA	20030929	AU20030219943	20030228
EP1482886 A1	20041208	EP20030713771	20030228
EP1482886 B1	20091104	EP20030713771	20030228
EP1482887 A1	20041208	EP20030713777	20030228
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NO324543 B1	20071119	NO20040003581	20040827
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Priority:

EP20030713777	20030228	EP20030716228	20030228	US20020209751	20020731
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Probable Assignee: KIMBERLY CLARK CO

Assignee(s): (std): KIMBERLY CLARK CO ; KIMBERLY CLARK WORLDWIDE INC

Inventor(s): (std): ARCHIE D MORGAN ; BRADLEY M MAROHL ; BRIAN R VOGT ; CARBONE HENRY L ; CARBONE HENRY L II ; CARBONE II HENRY L ; CHARLES R TOMSOVIC ; CLARK CLINTON D ; CLINTON D CLARK ; COUILLARD JACK ; CSIDA JASON G ; DALE H DAMSTEEGT ; DAMSTEEGT DALE H ; DAVID A MAXTON ; DOLLEVOET TIM G ; DOLLEVOET TIMOTHY G ; FLICKER THOMAS M ; FRANKLIN KEN A ; FRANKLIN KENT A ; GIMENEZ JOESPH J ; JACK COUILLARD ; JASON G CSIDA ; JEROME J ; JOSEPH J GIMENEZ ; GIMENEZ JOSEPH J ; HENRY L CARBONE II ; KENT A FRANKLIN ; KOELE MATTHEW L ; KRUPKA KURT G ; KURT G KRUPKA ; LOHOFF MIKE L ; MAROHL BRADLEY M ; MATTHEW L KOELE ; MAXTON DAVID A ; MICHAEL W PROTHEROE ; MIKE L LOHOFF ; MORGAN ARCHIE D ; POPP ROBERT L ; POPP ROBERT LEE ; PROTHEROE MICHAEL W ; ROBERT L POPP ; SCHNASSE STEVEN L ; STEVEN L SCHNASSE ; THOMAS M FLICKER ; TIM G DOLLEVOET ; TIMOTHY G DOLLEVOET ; TOMSOVIC CHARLES R ; VOGT BRIAN R ; WORKMAN JEROME J ; WORKMAN JEROME J JR ; WORKMAN JR JEROME ; WORKMAN JR JEROME J

Inventor(s): WORKMAN JEROME JJR ; WORKMAN ; WORKMAN JEROME ; MAROHL BRADLEY ; KOELE MATTHEW ; II HENRY L ; JR JEROME J ; GIMENEZ JOSEPH ; FRANKLIN KENT ; FLICKER THOMAS ; CLARK CLINTON ; CARBONE

Agent(s): DAVIES CHRISTOPHER ROBERT; RAMSAY LAURA ANNE; CHIVA ANDREW PETER; SENNIGER POWERS LEAVITT AND ROEDEL; SENNIGER POWERS; ARMSTRONG TEASDALE LLP; BRIDGE RICHARD L; GOFF CHRISTOPHER M

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 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 UZ VC VN YU ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AR038731 AA	20050126	LSPB	+	published / reissued	
AR038731 AA	20100419	LSGT	+FG	GRANT, REGISTRATION	
AR038732 AA	20050126	LSPB	+	published / reissued	
AR038732 AA	20100422	LSGT	+FG	GRANT, REGISTRATION	
AR038733 AA	20050126	LSPB	+	published / reissued	
AR038733 AA	20100630	LSWD	-FB	SUSPENSION OF GRANTING PROCEDURE	
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EP1482887 A1	20050105	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : POPP, ROBERT, L.
EP1482887 A1	20050105	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : MORGAN, ARCHIE, D.
EP1482887 A1	20050105	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : SCHNASSE, STEVEN, L.
EP1482887 A1	20050105	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : COUILLARD, JACK
EP1482887 A1	20050105	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : CLARK, CLINTON, D.
EP1482887 A1	20050105	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : MAXTON, DAVID, A.
EP1482887 A1	20050105	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : MAROHL, BRADLEY, M.

EP1482887 A1	20050105	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : DOLLEVOET, TIM, G.
EP1482887 A1	20050105	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : GIMENEZ, JOSEPH, J.
EP1482887 A1	20050105	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : CARBONE II, HENRY, L.
EP1482887 A1	20050105	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : KRUPKA, KURT, G.
EP1482887 A1	20050105	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : VOGT, BRIAN, R.
EP1482887 A1	20050105	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : KOELE, MATTHEW, L.
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EP1482888 A1	20051012	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : FRANKLIN, KENT, A.
EP1482888 A1	20051012	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : CLARK, CLINTON, D.
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EP1482888 A1	20051012	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : KOELE, MATTHEW, L.
EP1482888 A1	20051012	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : FLICKER, THOMAS, M.
EP1482888 A1	20051012	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : WORKMAN, JEROME, J., JR.
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US2003171725 AA	20030911	LSPB	+	published / reissued	
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US6885451 BB	20050406	LSGT	PAT1	Patented Case	
US6885451 BB	20081027	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6885451 BB	20121026	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6885451 BB	20150203	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK WORLDWIDE, INC.; REEL/FRAME:034880/0742 EFFECTIVE DATE : 20150101
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US6888143 BB	20021029	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:VOGT, BRIAN R.; CARBONE, HENRY L., II; CLARK, CLINTON D.; AND OTHERS; REEL/FRAME:013451/0240; SIGNING DATES FROM 20020910 TO 20021011
US6888143 BB	20050413	LSGT	PAT1	Patented Case	
US6888143 BB	20051004	LSRE	CC	CERTIFICATE OF CORRECTION	
US6888143 BB	20081103	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6888143 BB	20121105	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6888143 BB	20150203	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK WORLDWIDE, INC.; REEL/FRAME:034880/0742 EFFECTIVE DATE : 20150101
US6888143 BB	20161103	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6900450 BB	20050531	LSGT	+	granted / extensions (spc, cpc, pte)	
US6900450 BB	20021218	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:GIMENEZ, JOSEPH J.; DOLLEVOET, TIM G.; VOGT, BRIAN R.; AND OTHERS; REEL/FRAME:013602/0442; SIGNING DATES FROM 20021125 TO 20021218
US6900450 BB	20051025	LSRE	CC	CERTIFICATE OF CORRECTION	
US6900450 BB	20081201	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6900450 BB	20121130	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6900450 BB	20150203	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN OLDPARTY : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK WORLDWIDE, INC.;

					REEL/FRAME:034880/0742 EFFECTIVE DATE : 20150101
US6900450 BB	20161130	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6919965 BB	20050719	LSGT	+	granted / extensions (spc, cpc, pte)	
US6919965 BB	20021118	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KOELE, MATTHEW L.; MAROHL, BRADLEY M.; GIMENEZ, JOSEPH J.; AND OTHERS; REEL/FRAME:013492/0029; SIGNING DATES FROM 20021028 TO 20021030
US6919965 BB	20090120	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6919965 BB	20130121	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6919965 BB	20150203	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN OLDPARTY : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK WORLDWIDE, INC.; REEL/FRAME:034880/0742 EFFECTIVE DATE : 20150101
US6919965 BB	20170119	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
US6927857 BB	20050809	LSGT	+	granted / extensions (spc, cpc, pte)	
US6927857 BB	20021115	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KOELE, MATTHEW L.; CLARK, CLINTON D.; WORKMAN, JEROME J., JR.; AND OTHERS; REEL/FRAME:013500/0614; SIGNING DATES FROM 20021008 TO 20021031
US6927857 BB	20060808	LSRE	CC	CERTIFICATE OF CORRECTION	
US6927857 BB	20090209	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6927857 BB	20130211	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
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US7935296 BB	20110413	LSGT	PAT1	Patented Case	
US7935296 BB	20141103	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7935296 BB	20150203	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK WORLDWIDE, INC.; REEL/FRAME:034880/0742 EFFECTIVE DATE : 20150101
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WO03077813 A1	20040824	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2003716228 COUNTRY OF REF DOCUMENT : EP

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Title: MICRO-OPTIC SECURITY AND IMAGE PRESENTATION SYSTEM

Abstract: Source: US2005180020A A film material utilizing a regular two-dimensional array of non-cylindrical lenses to enlarge micro-images, called icons, to form a synthetically magnified image through the united performance of a multiplicity of individual lens/icon image systems. The synthetic magnification micro-optic system includes one or more optical spacers (5), a micro-image formed of a periodic planar array of a plurality of image icons (4) having an axis of symmetry about at least one of its planar axes and positioned on or next to the optical spacer (5), and a periodic planar array of image icon focusing elements (1) having an axis of symmetry about at least one of its planar axes, the axis of symmetry being the same planar axis as that of the micro-image planar array (4). A number of distinctive visual effects, such as three-dimensional and motion effects, can be provided by the present system.

Classifications:**International (ipc 8-9):** A61B1/00 B23P11/00 B32B3/30 B32B7/06

B41M3/14 B42D B42D15/00 B42D15/10 B42D25/00 B42D25/20

B42D25/29 B42D25/30 B42D25/324 B42D25/328 B42D25/342

B42D25/355 B42D25/36 B42D25/40 B42D25/41 B42D25/425

B42D25/43 B42D25/45 B44F1/04 B44F1/06 B44F1/10 B44F1/12

B44F7/00 D21C9/10 D21H21/42 D21H21/44 G01B15/02 G01N23/02

G01N23/06 G02B G02B13/18 G02B27/00 G02B27/02 G02B27/06

G02B27/08 G02B27/10 G02B27/12 G02B27/14 G02B27/22 G02B3/00

G02B3/02 G02B3/04 G02B3/10 G02B5/08 G02B5/12 G02B5/18

G03H1/00 G03H1/02 G06K9/18 G07D7/12

G42D15/10 (Advanced/Invention);

D21H21/44 G03H1/00 (Advanced/Non-invention);

A61B1/00 B41M3/14 B42D15/00 B42D15/10 D21C9/10 G01B15/00

G02B1/00 G02B13/00 G02B27/00 G02B27/02 G02B27/10 G02B27/22 G02B3/00

G02B5/00 G02B5/18 G03H1/00 G06K9/18

G07D7/12 (Core/Invention);

A61B B42D G01B G01N G02B G03H G06K (Subclass/Invention)

International (ipc 1-7): A61B1/00 G01B15/02 G02B0/00 G02B1/00 G02B13/18 G02B27/10**CPC:** B42D25/00 B42D25/342 B42D25/382 B42D25/387 B44F1/06 G02B3/0043 G02B27/06 G02B3/0068 G02B27/123

G09F3/0376 D21H21/40 G02B3/0075 G03H1/0256 G03H2223/19 B42D15/0013 B42D2035/28 B42D15/0026 B42D15/0073

D21H21/44 G02B3/0031 Y10T29/49826 B42D25/23 B42D25/41 B42D25/21 B42D25/324 B42D25/29 B42D25/328

B42D25/355 B42D25/391 B42D25/425 B42D25/43 G02B27/2214 G03H1/0244 B44F1/10 B44F7/00 G02B3/0056 B42D2033/24

B42D2035/08 B42D2035/20 B42D2035/44 B42D2033/10 B42D2033/16 B42D2033/18 B42D2033/20 B42D2035/26

B42D2035/36 G02B5/1842 G02B27/10 B41M3/14 G02B27/1006 B41M3/148

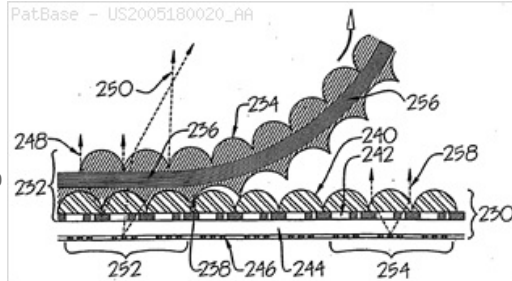
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L42D35/08 L42D35/20 L42D35/28 L42D35/44 N21H21/44 S02B27/22L S02B3/00A3S S03H1/02L5 S03H223/19

US: 156/344 156/711 156/711S 156/712 156/712S 283/109 283/109P 283/72 283/72P 283/72S 29/428 29/428P 359/618

359/619 359/619P 359/619S 359/622 359/622P 359/622S 359/626 359/626P 359/626S 359/627 359/627S

**Family:**

Publication number	Publication date	Application number	Application date
AU2004294182 AA	20050609	AU20040294182	20041122
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KR101384015 B1	20140409	KR20117005698	20041122
KR20060121216 A	20061128	KR20067012251	20041122
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KR20120062759 A	20120614	KR20127006219	20100812
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RU2006121097 A	20071227	RU20060121097	20041122
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RU2009101282 A	20100810	RU20090101282	20070628
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RU2602486 C2	20161120	RU20100142168	20101015
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TW200643469 A	20061216	TW20050118028	20050601
UA88288 C2	20091012	UA20060006952	20041122
US2005180020 AA	20050818	US20040995859	20041122
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US2008165423 AA	20080710	US20070932642	20071031
US2008212192 AA	20080904	US20070932468	20071031
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US2009021840 AA	20090122	US20070932515	20071031
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WO06125224 A2	20061123	WO2006US19810	20060518
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WO11019912 A1	20110217	WO2010US45318	20100812
WO11163298 A1	20111229	WO2011US41348	20110622
ZA200710725 A	20081231	ZA20070010725	20071210

Priority:

AU20040294182	20041122	AU20060246716	20060518	AU20100226869	20100930
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US20090233264P	20090812	US20100855309	20100812	US20110045854	20110311
WO2010US45318	20100812	WO2011US41348	20110622	US20050683037	20050520

Probable Assignee: VISUAL PHYSICS LLC

Assignee(s): (std): HURT MARK J ; NANOVENTIONS INC ; STEENBLIK RICHARD A ; JORDAN GREGORY R ; NANOVENTIONS HOLDINGS LLC ; CAPE SAMUEL M ; VISUAL PHYSICS LLC ; VIZUAL FIZIKS LLS ; VIZUAL FIZ LLS

Assignee(s): VISUAL PHYSICSLLC ; VISUAL PHYSICS LLC ALPHARETTA ; CRANE AND CO INC ; CRANE SECURITY TECHNOLOGIES INC ; HIGHBRIDGE PRINCIPAL STRATEGIES LLC COLLATERAL AGENT AS ; HURT MARK ; NANOVENTIONS INC Q ; TORONTO DOMINION (TEXAS) LLC ADMINISTRATIVE AGENT ; TORONTO DOMINION TEXAS LLC ADMINISTRATIVE AGENT AS ; TORONTO DOMINION (TEXAS) LLC ADMINISTRATIVE AGENT AS ; STEENBLIK RICHARD ; JORDAN GREGORY ; JPMORGAN CHASE BANK NA ADMINISTRATIVE AGENT AS ; VISUAL FIZIKS LLC

Inventor(s): (std): CAPE SAMUEL M ; CAPE SAMUEL M C ; DZHORDAN GREGORI R ; GREGORY R JORDAN ; HERT MARK J ; HURT MARK ; HURT MARK J ; JORDAN GREGORI P ; JORDAN GREGORY ; JORDAN GREGORY R ; KAPE SAMUEHL M ; KEJP SAMUEL M ; KHERT MARK DZH ; KHURT MARK DZH ; MARK J HURT ; RICHARD A STEENBLIK ; STEENBLIK RICHARD ; STEENBLIK RICHARD A ; STEENBLIK RICHARD A HURT MARK ; STENBLIK RICHARD A ; STINBLIK RICHARD A

Inventor(s): STEENBLIK RICHARD A PRINCEVILLE ; SAMUEL M CAPE ; SAMUEL MC CAPE ; JORDAN GREGORY R ALPHARETTA ; JORDAN GREGORY R CUMMING ; HURT MARK J KILAUEA

Agent(s): SHELSTON IP; FB RICE; SHELSTON IP PTY LTD; SMART AND BIGGAR; VILLASECA; GRUENECKER PATENT U RECHTSANWAELTE PARTG MBB; GRUENECKER KINKELDEY STOCKMAIR AND SCHWANHAEUSSER; VAN GORKOM LUCAS MARIJN; SEITZ HOLGER FRITZ KARL; GRUENECKER PATENT U RECHTSANWAELTE PARTG MBB; GRUENECKER KINKELDEY STOCKMAIR AND SCHWANHAEUSSER ANWALTSSOZIETAET; GRUENECKER KINKELDEY STOCKMAIR AND SCHWANHAEUSSER; SCHUSTER THOMAS; MILTENYI PETER; REINHOLD COHN AND PARTNERS; THOMAS KAYDEN HORSTEMEYER AND RISLEY LLP; HOLLAND AND BONZAGNI PC; DEVEAU TODD; TODD; MARY R; BONZAGNI MARY R 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 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 YU ZA ZM ZW

Legal status (INPADOC)
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Patent	Date recorded	Event group	Code	Event	Details
AU2004294182 AA	20050609	LSPB	+	published / reissued	
AU2004294182 AA	20090528	LSAS	PC1	ASSIGNMENT BEFORE GRANT (SECT. 113)	OWNER NAME : VISUAL PHYSICS, LLC DESCRIPTION : FORMER APPLICANT(S): NANOVENTIONS, INC.
AU2004294182 AA	20101021	LSOP	-CB	OPPOSITION LODGED BY	OPPONENT NAME : SECURENCY INTERNATIONAL PTY LTD
AU2004294182 AA	20131010	LSRE	DA2	APPLICATIONS FOR AMENDMENT SECTION 104	DESCRIPTION : THE NATURE OF THE AMENDMENT IS AS SHOWN IN THE STATEMENT(S) FILED 16 JUL 2013 .
AU2004294182 AA	20140116	LSRE	DA3	AMENDMENTS MADE SECTION 104	DESCRIPTION : THE NATURE OF THE AMENDMENT IS AS SHOWN IN THE STATEMENT(S) FILED 16 JUL 2013 - 183 -
AU2004294182 AA	20160225	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2004294182 BB	20100701	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2006246716 AA	20061123	LSPB	+	published / reissued	
AU2006246716 AA	20091008	LSAS	PC1	ASSIGNMENT BEFORE GRANT (SECT. 113)	OWNER NAME : VISUAL PHYSICS, LLC -10379 DESCRIPTION : FORMER APPLICANT(S): NANOVENTIONS HOLDINGS, LLC.
AU2006246716 AA	20091008	LSAS	PC1	ASSIGNMENT BEFORE GRANT (SECT. 113)	OWNER NAME : VISUAL PHYSICS, LLC DESCRIPTION : FORMER APPLICANT(S): NANOVENTIONS HOLDINGS, LLC.
AU2006246716 AA	20120216	LSOP	-CB	OPPOSITION LODGED BY	OPPONENT NAME : SECURENCY INTERNATIONAL PTY LTD
AU2006246716 AA	20140710	LSRE	DA2	APPLICATIONS FOR AMENDMENT SECTION 104	DESCRIPTION : THE NATURE OF THE AMENDMENT IS AS SHOWN IN THE STATEMENT(S) FILED 19 MAY 2014 .
AU2006246716 AA	20140925	LSOP	-CB	OPPOSITION LODGED BY	OPPONENT NAME : INNOVIA SECURITY PTY LTY
AU2006246716 AA	20150416	LSRE	DA3	AMENDMENTS MADE SECTION 104	DESCRIPTION : THE NATURE OF THE AMENDMENT IS AS SHOWN IN THE STATEMENT(S) FILED 19 MAY 2014
AU2006246716 AA	20150625	LSPB	SREP	SPECIFICATION REPUBLISHED	
AU2006246716 AA	20160421	LSRE	DA2	APPLICATIONS FOR AMENDMENT SECTION 104	DESCRIPTION : THE NATURE OF THE AMENDMENT IS AS SHOWN IN THE STATEMENT(S) FILED 05 FEB 2016 .
AU2006246716 AA	20160707	LSRE	DA3	AMENDMENTS MADE SECTION 104	DESCRIPTION : THE NATURE OF THE AMENDMENT IS AS SHOWN IN THE STATEMENT(S) FILED 05 FEB 2016
AU2006246716 AA	20160818	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2006246716 BB	20111103	LSGT	+	granted / extensions (spc, cpc, pte)	

AU2007272705 AA	20080117	LSPB	+	published / reissued	
AU2007272705 AA	20130117	LSOP	-CB	OPPOSITION LODGED BY	OPPONENT NAME : SECURENCY INTERNATIONAL PTY LTD
AU2007272705 AA	20140403	LSGT	+CH	OPPOSITION WITHDRAWN	OPPONENT NAME : SECURENCY INTERNATIONAL PTY LTD
AU2007272705 AA	20140424	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2007272705 BB	20120920	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2010226869 AA	20101021	LSPB	+	published / reissued	
AU2010226869 AA	20120301	LSOP	-CB	OPPOSITION LODGED BY	PARTYTYPE : OPPONENT OPPONENT : SECURENCY INTERNATIONAL PTY LTD
AU2010226869 AA	20140313	LSRE	DA2	APPLICATIONS FOR AMENDMENT SECTION 104	TEXT : THE NATURE OF THE AMENDMENT IS AS SHOWN IN THE STATEMENT(S) FILED 08 AUG 2013 .
AU2010226869 AA	20140529	LSOP	-CB	OPPOSITION LODGED BY	PARTYTYPE : OPPONENT OPPONENT : INNOVIA SECURITY PTY LTD
AU2010226869 AA	20150416	LSRE	DA3	AMENDMENTS MADE SECTION 104	TEXT : THE NATURE OF THE AMENDMENT IS AS SHOWN IN THE STATEMENT(S) FILED 08 AND 22 AUG 2013
AU2010226869 AA	20160428	LSRE	DA2	APPLICATIONS FOR AMENDMENT SECTION 104	TEXT : THE NATURE OF THE AMENDMENT IS AS SHOWN IN THE STATEMENT(S) FILED 05 FEB 2016 .
AU2010226869 AA	20160721	LSRE	DA3	AMENDMENTS MADE SECTION 104	TEXT : THE NATURE OF THE AMENDMENT IS AS SHOWN IN THE STATEMENT(S) FILED 05 FEB 2016
AU2010226869 AA	20161215	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2010226869 BB	20111117	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2010282484 AA	20110217	LSPB	+	published / reissued	
AU2010282484 AA	20140227	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2010282484 BB	20131031	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2011271030 AA	20111229	LSPB	+	published / reissued	
AU2011271030 AA	20150430	LSOP	-CB	OPPOSITION LODGED BY	PARTYTYPE : OPPONENT OPPONENT : INNOVIA SECURITY PTY LTD
AU2011271030 AA	20160707	LSRE	DA2	APPLICATIONS FOR AMENDMENT SECTION 104	TEXT : THE NATURE OF THE AMENDMENT IS AS SHOWN IN THE STATEMENT(S) FILED 02 MAY 2016 .
AU2011271030 AA	20160929	LSRE	DA3	AMENDMENTS MADE SECTION 104	TEXT : THE NATURE OF THE AMENDMENT IS AS SHOWN IN THE STATEMENT(S) FILED 02 MAY 2016
AU2011271030 BB	20150115	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2013204845 AA	20130516	LSPB	+	published / reissued	
AU2013204845 AA	20161215	LSLE	-MK4	APPLICATION	

				LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
AU2013204869 AA	20130509	LSPB	+	published / reissued	
AU2013204869 AA	20140508	LSLE	-MK1	APPLICATION LAPSED SECTION 142(2)(A) - NO REQUEST FOR EXAMINATION IN RELEVANT PERIOD	
AU2013204884 AA	20130516	LSPB	+	published / reissued	
AU2013204884 AA	20150827	LSLE	-MK5	APPLICATION LAPSED SECTION 142(2)(E) - PATENT REQUEST AND COMPL. SPECIFICATION NOT ACCEPTED	
AU2013204903 AA	20130516	LSPB	+	published / reissued	
AU2013204903 AA	20150827	LSLE	-MK5	APPLICATION LAPSED SECTION 142(2)(E) - PATENT REQUEST AND COMPL. SPECIFICATION NOT ACCEPTED	
AU2015207918 AA	20150820	LSPB	+	published / reissued	
BR112012003071 A2	20160816	LSPB	+	published / reissued	
BR112012033221 A2	20161116	LSPB	+	published / reissued	
BRPI0610706 A2	20100720	LSPB	+	published / reissued	
BRPI0610706 A2	20110830	LSAS	B25A	REQUESTED TRANSFER OF RIGHTS APPROVED	OWNER NAME : VISUAL PHYSICS, LLC (US) DESCRIPTION : TRANSFERIDO DE: NANOVENTIONS HOLDINGS, LLC
CA2546930 AA	20060523	LSPB	+	published / reissued	
CA2546930 AA	20060523	LSNP	+AFNE	NATIONAL PHASE ENTRY	
CA2546930 AA	20091110	LSES	+EEER	EXAMINATION REQUEST	
CA2608754 AA	20071116	LSPB	+	published / reissued	
CA2608754 AA	20071116	LSNP	+AFNE	NATIONAL PHASE ENTRY	
CA2608754 AA	20110518	LSES	+EEER	EXAMINATION REQUEST	
CA2608754 AA	20110531	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20110518
CA2656528 AA	20081224	LSPB	+	published / reissued	
CA2656528 AA	20081224	LSNP	+AFNE	NATIONAL PHASE ENTRY	
CA2656528 AA	20120426	LSES	+EEER	EXAMINATION REQUEST	
CA2656528 AA	20120510	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20120426
CA2656528 C	20150414	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2769301 AA	20120125	LSPB	+	published / reissued	
CA2769301 AA	20150821	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20150810
CA2803857 AA	20121221	LSPB	+	published / reissued	
CA2803857 AA	20160630	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20160622
CA2812971 AA	20050609	LSPB	+	published / reissued	

CA2812971 AA	20130524	LSSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20130415
CA2938784 AA	20050609	LSPB	+	published / reissued	
CA2938784 AA	20160818	LSSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20160815
CL2007003350 A1	20090703	LSPB	+	published / reissued	
CN101379423 A	20090304	LSPB	+	published / reissued	
CN101379423 A	20090304	LSPB	+C06	PUBLICATION	
CN101379423 A	20110406	LSAS	ASS	SUCCESSION OR ASSIGNMENT OF PATENT RIGHT	OWNER NAME : NANOVENTIONS INC. DESCRIPTION : FORMER OWNER: NANOVENTIONS HOLDINGS LLC EFFECTIVE DATE : 20110224
CN101379423 A	20110406	LSAS	C41	TRANSFER OF PATENT APPLICATION OR PATENT RIGHT OR UTILITY MODEL	
CN101379423 A	20160406	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN101379423 B	20160406	LSGT	+	granted / extensions (spc, cpc, pte)	
CN101563640 A	20091021	LSPB	+	published / reissued	
CN101563640 A	20091021	LSPB	+C06	PUBLICATION	
CN101563640 A	20111214	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN101563640 B	20111214	LSGT	+	granted / extensions (spc, cpc, pte)	
CN102497994 A	20120613	LSPB	+	published / reissued	
CN102497994 A	20151125	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN102497994 B	20151125	LSGT	+	granted / extensions (spc, cpc, pte)	
CN103097919 A	20130508	LSPB	+	published / reissued	
CN103097919 A	20130508	LSPB	+C06	PUBLICATION	
CN1906547 A	20070131	LSPB	+	published / reissued	
CN1906547 A	20070131	LSPB	+C06	PUBLICATION	
CN1906547 A	20110216	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN1906547 A	20110406	LSAS	ASS	SUCCESSION OR ASSIGNMENT OF PATENT RIGHT	OWNER NAME : NANOVENTIONS HOLDINGS LLC DESCRIPTION : FORMER OWNER: NANOVENTIONS INC. EFFECTIVE DATE : 20110223
CN1906547 A	20110406	LSAS	ASS	SUCCESSION OR ASSIGNMENT OF PATENT RIGHT	OWNER NAME : NANOVENTIONS INC. DESCRIPTION : FORMER OWNER: NANOVENTIONS HOLDINGS LLC EFFECTIVE DATE : 20110223
CN1906547 A	20110406	LSAS	C41	TRANSFER OF PATENT APPLICATION OR PATENT RIGHT OR UTILITY MODEL	
CN1906547 A	20111021	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : GR REF DOCUMENT NUMBER : 1103810 COUNTRY OF REF DOCUMENT : HK
CN1906547 B	20110216	LSGT	+	granted / extensions (spc, cpc, pte)	

DE202004021712 U1	20100722	LSGT	+	granted / extensions (spc, cpc, pte)	
DE202004021712 U1	20100826	LSGT	R207	UTILITY MODEL SPECIFICATION	EFFECTIVE DATE : 20100826
DE202004021712 U1	20101104	LSGT	+R150	TERM OF PROTECTION EXTENDED TO 6 YEARS	EFFECTIVE DATE : 20100827
DE202004021712 U1	20110324	LSGT	+R151	TERM OF PROTECTION EXTENDED TO 8 YEARS	EFFECTIVE DATE : 20110117
DE202004021712 U1	20130228	LSGT	+R152	TERM OF PROTECTION EXTENDED TO 10 YEARS	EFFECTIVE DATE : 20130103
DE202004021712 U1	20141130	LSLE	-R071	EXPIRY OF RIGHT	
DE202004021713 U1	20100812	LSGT	+	granted / extensions (spc, cpc, pte)	
DE202004021713 U1	20100916	LSGT	R207	UTILITY MODEL SPECIFICATION	EFFECTIVE DATE : 20100916
DE202004021713 U1	20101125	LSGT	+R150	TERM OF PROTECTION EXTENDED TO 6 YEARS	EFFECTIVE DATE : 20100916
DE202004021713 U1	20110324	LSGT	+R151	TERM OF PROTECTION EXTENDED TO 8 YEARS	EFFECTIVE DATE : 20110117
DE202004021713 U1	20120427	LSOP	-R165	REQUEST FOR CANCELLATION OR RULING FILED	
DE202004021713 U1	20130228	LSGT	+R152	TERM OF PROTECTION EXTENDED TO 10 YEARS	EFFECTIVE DATE : 20130103
DE202004021713 U1	20141130	LSLE	-R071	EXPIRY OF RIGHT	
DE202004021714 U1	20100923	LSGT	+	granted / extensions (spc, cpc, pte)	
DE202004021714 U1	20101028	LSGT	R207	UTILITY MODEL SPECIFICATION	EFFECTIVE DATE : 20101028
DE202004021714 U1	20110105	LSGT	+R150	TERM OF PROTECTION EXTENDED TO 6 YEARS	EFFECTIVE DATE : 20101028
DE202004021714 U1	20110324	LSGT	+R151	TERM OF PROTECTION EXTENDED TO 8 YEARS	EFFECTIVE DATE : 20110117
DE202004021714 U1	20130228	LSGT	+R152	TERM OF PROTECTION EXTENDED TO 10 YEARS	EFFECTIVE DATE : 20130103
DE202004021714 U1	20141130	LSLE	-R071	EXPIRY OF RIGHT	
DK1695121 T3	20140630	LSGT	+	granted / extensions (spc, cpc, pte)	
DK1893074 T3	20131104	LSGT	+	granted / extensions (spc, cpc, pte)	
DK2335943 T3	20141006	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1695121 A2	20060830	LSPB	+	published / reissued	
EP1695121 A2	20060830	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20060621
EP1695121 A2	20090603	LSAS	RAP1	TRANSFER OF RIGHTS OF AN EP PUBLISHED APPLICATION	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC
EP1695121 A2	20101124	LSES	+A4	DESPATCH OF SUPPLEMENTARY SEARCH REPORT	EFFECTIVE DATE : 20101022
EP1695121 A2	20101124	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 15/00

EP1695121 A2	20101124	LSRE	RIC1	CLASSIFICATION (CORRECTION)	20060101AFI20101018BHEP CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/22 20060101ALI20101018BHEP
EP1695121 A2	20101124	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 3/00 20060101ALI20101018BHEP
EP1695121 A2	20110330	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20110224
EP1695121 A2	20110921	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD, A.
EP1695121 A2	20110921	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK, J.
EP1695121 A2	20110921	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY, R.
EP1695121 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK, J.
EP1695121 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY, R.
EP1695121 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD, A.
EP1695121 A2	20131120	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 15/10 20060101ALI20131011BHEP
EP1695121 A2	20131120	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/22 20060101ALI20131011BHEP
EP1695121 A2	20131120	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 3/00 20060101ALI20131011BHEP
EP1695121 A2	20131120	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 15/00 20060101ALI20131011BHEP
EP1695121 A2	20131120	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B44F 1/06 20060101AFI20131011BHEP
EP1695121 A2	20131120	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/06 20060101ALI20131011BHEP
EP1695121 A2	20131120	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : D21H 21/44 20060101ALI20131011BHEP
EP1695121 A2	20131120	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B44F 1/10 20060101ALI20131011BHEP
EP1695121 A2	20140101	LSGT	+INTG	ANNOUNCEMENT OF INTENTION TO GRANT	EFFECTIVE DATE : 20131206

EP1695121 A2	20140604	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1695121 A2	20140604	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 15/00 20060101ALI20140430BHEP
EP1695121 A2	20140604	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 3/00 20060101ALI20140430BHEP
EP1695121 A2	20140604	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : D21H 21/44 20060101ALI20140430BHEP
EP1695121 A2	20140604	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/22 20060101ALI20140430BHEP
EP1695121 A2	20140604	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B44F 1/10 20060101ALI20140430BHEP
EP1695121 A2	20140604	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/06 20060101ALI20140430BHEP
EP1695121 A2	20140604	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B44F 1/06 20060101AFI20140430BHEP
EP1695121 A2	20140613	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1695121 A2	20140615	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 670860 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20140615
EP1695121 A2	20140702	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1695121 A2	20140717	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602004045233 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20140717
EP1695121 A2	20140910	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : T3
EP1695121 A2	20141008	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2504890 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20141008
EP1695121 A2	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE

					PREScribed TIME-LIMIT LAPSED DATE : 20140604
EP1695121 A2	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : GR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PREScribed TIME-LIMIT LAPSED DATE : 20140905
EP1695121 A2	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CY NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PREScribed TIME-LIMIT LAPSED DATE : 20140604
EP1695121 A2	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : RO NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PREScribed TIME-LIMIT LAPSED DATE : 20140604
EP1695121 A2	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : PT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PREScribed TIME-LIMIT LAPSED DATE : 20141006
EP1695121 A2	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PREScribed TIME-LIMIT LAPSED DATE : 20140604
EP1695121 A2	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : EE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PREScribed TIME-LIMIT LAPSED DATE : 20140604
EP1695121 A2	20150227	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IS NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PREScribed TIME-LIMIT LAPSED DATE : 20141004
EP1695121 A2	20150305	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602004045233 COUNTRY OF REF DOCUMENT : DE
EP1695121 A2	20150513	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20150305
EP1695121 A2	20150618	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602004045233 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20150305
EP1695121 A2	20150630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM	COUNTRY OF REF DOCUMENT : BE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION

				NAT. OFFICE TO EPO	OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140604
EP1695121 A2	20150630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : MC NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140604
EP1695121 A2	20150630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LU NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141122
EP1695121 A2	20150728	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HU REF LEGAL EVENT CODE : AG4A REF DOCUMENT NUMBER : E023253 COUNTRY OF REF DOCUMENT : HU
EP1695121 A2	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140604
EP1695121 A2	20151123	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 12
EP1695121 A2	20160129	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20151124 YEAR OF FEE PAYMENT : 12
EP1695121 A2	20160129	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20151126 YEAR OF FEE PAYMENT : 12
EP1695121 A2	20160129	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20151123 YEAR OF FEE PAYMENT : 12
EP1695121 A2	20160129	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20151123 YEAR OF FEE PAYMENT : 12
EP1695121 A2	20160129	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20151123 YEAR OF FEE PAYMENT : 12
EP1695121 A2	20160229	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : HU PAYMENT DATE : 20151112 YEAR OF FEE PAYMENT : 12
EP1695121 A2	20160229	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20151102 YEAR OF FEE PAYMENT : 12
EP1695121 A2	20160229	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20151125 YEAR OF FEE PAYMENT : 12
EP1695121 A2	20160229	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20151119 YEAR OF FEE PAYMENT : 12

EP1695121 A2	20160229	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20151120 YEAR OF FEE PAYMENT : 12
EP1695121 A2	20160229	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : CZ PAYMENT DATE : 20151104 YEAR OF FEE PAYMENT : 12
EP1695121 A2	20160229	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20151126 YEAR OF FEE PAYMENT : 12
EP1695121 A2	20160229	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20151123 YEAR OF FEE PAYMENT : 12
EP1695121 A2	20160429	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20151130 YEAR OF FEE PAYMENT : 12
EP1695121 A2	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : BG NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140604
EP1695121 A2	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : TR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140604
EP1695121 A2	20161123	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 13
EP1695121 A2	20170131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : CZ PAYMENT DATE : 20161111 YEAR OF FEE PAYMENT : 13
EP1695121 A2	20170131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20161123 YEAR OF FEE PAYMENT : 13
EP1695121 A2	20170131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20161123 YEAR OF FEE PAYMENT : 13
EP1695121 A2	20170131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20161128 YEAR OF FEE PAYMENT : 13
EP1695121 A2	20170131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20161123 YEAR OF FEE PAYMENT : 13
EP1695121 A2	20170131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20161123 YEAR OF FEE PAYMENT : 13
EP1695121 A2	20170131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20161128 YEAR OF FEE PAYMENT : 13
EP1695121 A2	20170131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20161126 YEAR OF FEE PAYMENT : 13
EP1695121 A2	20170131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID	COUNTRY OF REF DOCUMENT : HU

				TO NATIONAL OFFICE	PAYMENT DATE : 20161109 YEAR OF FEE PAYMENT : 13
EP1695121 A2	20170228	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20161124 YEAR OF FEE PAYMENT : 13
EP1695121 A2	20170228	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20161128 YEAR OF FEE PAYMENT : 13
EP1695121 A2	20170228	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20161125 YEAR OF FEE PAYMENT : 13
EP1695121 A2	20170228	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20161102 YEAR OF FEE PAYMENT : 13
EP1695121 A2	20170228	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20161104 YEAR OF FEE PAYMENT : 13
EP1695121 B1	20140604	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1893074 A2	20080305	LSPB	+	published / reissued	
EP1893074 A2	20080305	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20071217
EP1893074 A2	20081112	LSES	R17D	SEARCH REPORT (CORRECTION)	EFFECTIVE DATE : 20081002
EP1893074 A2	20081126	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : D21C 9/10 20060101ALI20081017BHEP
EP1893074 A2	20081126	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/00 20060101ALI20081017BHEP
EP1893074 A2	20081126	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/10 20060101AFI20081017BHEP
EP1893074 A2	20081126	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/10 20060101ALI20081017BHEP
EP1893074 A2	20090603	LSAS	RAP1	TRANSFER OF RIGHTS OF AN EP PUBLISHED APPLICATION	OWNER NAME : VISUAL PHYSICS, LLC
EP1893074 A2	20101020	LSES	+A4	DESPATCH OF SUPPLEMENTARY SEARCH REPORT	EFFECTIVE DATE : 20100916
EP1893074 A2	20110824	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20110721
EP1893074 A2	20110921	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : STEENBLIK, RICHARD, A.
EP1893074 A2	20110921	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : HURT, MARK, J.
EP1893074 A2	20110921	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : JORDAN, GREGORY, R.
EP1893074 A2	20121219	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/00 20060101ALI20121109BHEP
EP1893074 A2	20121219	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/22 20060101AFI20121109BHEP
EP1893074 A2	20121219	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/10 20060101ALI20121109BHEP
EP1893074 A2	20130828	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1893074 A2	20130830	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP

EP1893074 A2	20130915	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 629648 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T EFFECTIVE DATE : 20130915
EP1893074 A2	20131009	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1893074 A2	20131016	LSRE	RIN2	INVENTOR (CORRECTION)	INVENTOR NAME : HURT, MARK, J.
EP1893074 A2	20131016	LSRE	RIN2	INVENTOR (CORRECTION)	INVENTOR NAME : JORDAN, GREGORY, R.
EP1893074 A2	20131016	LSRE	RIN2	INVENTOR (CORRECTION)	INVENTOR NAME : STEENBLIK, RICHARD, A.
EP1893074 A2	20131024	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602006038134 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20131024
EP1893074 A2	20131216	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2434443 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 EFFECTIVE DATE : 20131216
EP1893074 A2	20131225	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : T3
EP1893074 A2	20140127	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP1893074 A2	20140131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : LT DESCRIPTION : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT EFFECTIVE DATE : 20130828
EP1893074 A2	20140131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : CY DESCRIPTION : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT EFFECTIVE DATE : 20130703
EP1893074 A2	20140131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : IS DESCRIPTION : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT EFFECTIVE DATE : 20131228
EP1893074 A2	20140131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : PT DESCRIPTION : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT EFFECTIVE DATE : 20131230
EP1893074 A2	20140227	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : EP REF DOCUMENT NUMBER : 20130402522 COUNTRY OF REF DOCUMENT : GR EFFECTIVE DATE : 20140102

EP1893074 A2	20140228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : PL DESCRIPTION : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT EFFECTIVE DATE : 20130828
EP1893074 A2	20140228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : SI DESCRIPTION : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT EFFECTIVE DATE : 20130828
EP1893074 A2	20140228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : LV DESCRIPTION : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT EFFECTIVE DATE : 20130828
EP1893074 A2	20140228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : FI DESCRIPTION : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT EFFECTIVE DATE : 20130828
EP1893074 A2	20140331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : CY DESCRIPTION : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT EFFECTIVE DATE : 20130828
EP1893074 A2	20140430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : RO DESCRIPTION : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT EFFECTIVE DATE : 20130828
EP1893074 A2	20140530	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : EE DESCRIPTION : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT EFFECTIVE DATE : 20130828
EP1893074 A2	20140530	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : SK DESCRIPTION : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT EFFECTIVE DATE : 20130828
EP1893074 A2	20140603	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : SE REF LEGAL EVENT CODE : RPOT
EP1893074 A2	20140630	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HU REF LEGAL EVENT CODE : AG4A REF DOCUMENT NUMBER : E019495 COUNTRY OF REF DOCUMENT : HU
EP1893074 A2	20140709	LSOP	-26	OPPOSITION FILED	OPPONENT NAME : GIESECKE AND DEVRIENT GMBH EFFECTIVE DATE : 20140527
EP1893074 A2	20140709	LSOP	-26	OPPOSITION FILED	OPPONENT NAME : INNOVIA SECURITY PTY LTD. EFFECTIVE DATE : 20140528
EP1893074 A2	20140731	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : IE PAYMENT DATE : 20140523 YEAR OF FEE PAYMENT : 09

EP1893074 A2	20140731	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : GB PAYMENT DATE : 20140527 YEAR OF FEE PAYMENT : 09
EP1893074 A2	20140814	LSOP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R026 REF DOCUMENT NUMBER : 602006038134 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20140527
EP1893074 A2	20140829	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : CZ PAYMENT DATE : 20140502 YEAR OF FEE PAYMENT : 09
EP1893074 A2	20140829	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : AT PAYMENT DATE : 20140528 YEAR OF FEE PAYMENT : 09
EP1893074 A2	20140829	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : ES PAYMENT DATE : 20140528 YEAR OF FEE PAYMENT : 09
EP1893074 A2	20140829	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : DE PAYMENT DATE : 20140527 YEAR OF FEE PAYMENT : 09
EP1893074 A2	20140829	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : NL PAYMENT DATE : 20140524 YEAR OF FEE PAYMENT : 09
EP1893074 A2	20140829	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : IT PAYMENT DATE : 20140523 YEAR OF FEE PAYMENT : 09
EP1893074 A2	20140829	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : SE PAYMENT DATE : 20140524 YEAR OF FEE PAYMENT : 09
EP1893074 A2	20140829	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : FR PAYMENT DATE : 20140522 YEAR OF FEE PAYMENT : 09
EP1893074 A2	20140829	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : CH PAYMENT DATE : 20140526 YEAR OF FEE PAYMENT : 09
EP1893074 A2	20140930	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : HU PAYMENT DATE : 20140507 YEAR OF FEE PAYMENT : 09
EP1893074 A2	20140930	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : DK PAYMENT DATE : 20140524 YEAR OF FEE PAYMENT : 09
EP1893074 A2	20141231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : LU DESCRIPTION : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT EFFECTIVE DATE : 20140518
EP1893074 A2	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : MC DESCRIPTION : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT EFFECTIVE DATE : 20130828
EP1893074 A2	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : GR DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20141203
EP1893074 A2	20150202	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : ML REF DOCUMENT NUMBER : 20130402522 COUNTRY OF REF DOCUMENT : GR EFFECTIVE DATE : 20141203

EP1893074 A2	20150518	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 10
EP1893074 A2	20150731	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : ES PAYMENT DATE : 20150511 YEAR OF FEE PAYMENT : 10
EP1893074 A2	20150731	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : GB PAYMENT DATE : 20150518 YEAR OF FEE PAYMENT : 10
EP1893074 A2	20150731	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : SE PAYMENT DATE : 20150516 YEAR OF FEE PAYMENT : 10
EP1893074 A2	20150731	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : DE PAYMENT DATE : 20150527 YEAR OF FEE PAYMENT : 10
EP1893074 A2	20150731	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : CH PAYMENT DATE : 20150516 YEAR OF FEE PAYMENT : 10
EP1893074 A2	20150831	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : IT PAYMENT DATE : 20150527 YEAR OF FEE PAYMENT : 10
EP1893074 A2	20150831	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : FR PAYMENT DATE : 20150518 YEAR OF FEE PAYMENT : 10
EP1893074 A2	20150831	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : AT PAYMENT DATE : 20150513 YEAR OF FEE PAYMENT : 10
EP1893074 A2	20151221	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EBP EFFECTIVE DATE : 20150531
EP1893074 A2	20160224	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1893074 A2	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : CZ DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20150518
EP1893074 A2	20160406	LSOP	-R26	OPPOSITION FILED (CORRECTION)	OPPONENT NAME : INNOVIA SECURITY PTY LTD. EFFECTIVE DATE : 20140528
EP1893074 A2	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : NL DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20150601
EP1893074 A2	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : DK DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20150531
EP1893074 A2	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : IE DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20150518
EP1893074 A2	20160512	LSFE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 11
EP1893074 A2	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : BG DESCRIPTION : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT EFFECTIVE DATE : 20130828
EP1893074 A2	20160531	LSLE	-PG25	LAPSED IN A	REF COUNTRY CODE : HU

				CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20150519
EP1893074 A2	20160727	LSRE	RIC2	CLASSIFICATION (CORRECTION)	IPC : B42D 25/425 20140101ALI20160622BHEP
EP1893074 A2	20160727	LSRE	RIC2	CLASSIFICATION (CORRECTION)	IPC : B42D 15/00 20060101ALI20160622BHEP
EP1893074 A2	20160727	LSRE	RIC2	CLASSIFICATION (CORRECTION)	IPC : G02B 27/10 20060101ALI20160622BHEP
EP1893074 A2	20160727	LSRE	RIC2	CLASSIFICATION (CORRECTION)	IPC : B42D 25/355 20140101ALI20160622BHEP
EP1893074 A2	20160727	LSRE	RIC2	CLASSIFICATION (CORRECTION)	IPC : G02B 27/22 20060101ALI20160622BHEP
EP1893074 A2	20160727	LSRE	RIC2	CLASSIFICATION (CORRECTION)	IPC : G03H 1/02 20060101AFI20160622BHEP
EP1893074 A2	20160727	LSRE	RIC2	CLASSIFICATION (CORRECTION)	IPC : B42D 25/43 20140101ALI20160622BHEP
EP1893074 A2	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : TR DESCRIPTION : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT EFFECTIVE DATE : 20130828
EP1893074 A2	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : BE DESCRIPTION : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT EFFECTIVE DATE : 20140531
EP1893074 A2	20160729	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : CH PAYMENT DATE : 20160512 YEAR OF FEE PAYMENT : 11
EP1893074 A2	20160729	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : ES PAYMENT DATE : 20160520 YEAR OF FEE PAYMENT : 11
EP1893074 A2	20160729	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : DE PAYMENT DATE : 20160527 YEAR OF FEE PAYMENT : 11
EP1893074 A2	20160729	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : GB PAYMENT DATE : 20160512 YEAR OF FEE PAYMENT : 11
EP1893074 A2	20160831	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : SE PAYMENT DATE : 20160511 YEAR OF FEE PAYMENT : 11
EP1893074 A2	20160831	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : AT PAYMENT DATE : 20160516 YEAR OF FEE PAYMENT : 11
EP1893074 A2	20160831	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : FR PAYMENT DATE : 20160512 YEAR OF FEE PAYMENT : 11
EP1893074 A2	20160831	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : IT PAYMENT DATE : 20160531 YEAR OF FEE PAYMENT : 11
EP1893074 B1	20130828	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2038692 A2	20090325	LSPB	+	published / reissued	
EP2038692 A2	20090325	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20090127
EP2038692 A2	20100505	LSES	+A4	DESPATCH OF SUPPLEMENTARY SEARCH REPORT	EFFECTIVE DATE : 20100401

EP2038692 A2	20101124	LSSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20101021
EP2038692 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD, A.
EP2038692 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY, R.
EP2038692 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK, J.
EP2038692 A2	20150729	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/12 20060101ALI20150624BHEP
EP2038692 A2	20150729	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 25/29 20140101ALI20150624BHEP
EP2038692 A2	20150729	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 25/324 20140101ALI20150624BHEP
EP2038692 A2	20150729	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/10 20060101AFI20150624BHEP
EP2038692 A2	20150729	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 25/355 20140101ALI20150624BHEP
EP2038692 A2	20150729	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 3/00 20060101ALI20150624BHEP
EP2038692 A2	20150729	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B44F 1/10 20060101ALI20150624BHEP
EP2038692 A2	20150729	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B44F 7/00 20060101ALI20150624BHEP
EP2038692 A2	20151125	LSGT	+INTG	ANNOUNCEMENT OF INTENTION TO GRANT	EFFECTIVE DATE : 20151027
EP2038692 A2	20160413	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD, A.
EP2038692 A2	20160413	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY, R.
EP2038692 A2	20160413	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK, J.
EP2038692 A2	20160420	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2038692 A2	20160429	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2038692 A2	20160515	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 793058 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF

					DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160515
EP2038692 A2	20160518	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2038692 A2	20160609	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602007045967 COUNTRY OF REF DOCUMENT : DE
EP2038692 A2	20160725	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 10
EP2038692 A2	20160825	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2038692 A2	20160930	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20160723 YEAR OF FEE PAYMENT : 10
EP2038692 A2	20161013	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2586215 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20161013
EP2038692 A2	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160420
EP2038692 A2	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160420
EP2038692 A2	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160420
EP2038692 A2	20161031	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160725 YEAR OF FEE PAYMENT : 10
EP2038692 A2	20161031	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160630 YEAR OF FEE PAYMENT : 10
EP2038692 A2	20161031	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20160725 YEAR OF FEE PAYMENT : 10
EP2038692 A2	20161031	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20160729 YEAR OF FEE PAYMENT : 10
EP2038692 A2	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOF LAPSE :

				VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160420
EP2038692 A2	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160721
EP2038692 A2	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160822
EP2038692 A2	20161130	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20160726 YEAR OF FEE PAYMENT : 10
EP2038692 A2	20161130	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20160725 YEAR OF FEE PAYMENT : 10
EP2038692 A2	20161130	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160725 YEAR OF FEE PAYMENT : 10
EP2038692 A2	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160420
EP2038692 A2	20161230	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20160729 YEAR OF FEE PAYMENT : 10
EP2038692 A2	20170120	LSOP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R026 REF DOCUMENT NUMBER : 602007045967 COUNTRY OF REF DOCUMENT : DE
EP2038692 A2	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160420
EP2038692 A2	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160420
EP2038692 A2	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160420
EP2038692 A2	20170131	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT

				CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	: SK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160420
EP2038692 A2	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : EE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160420
EP2038692 A2	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CZ NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160420
EP2038692 A2	20170301	LSOP	-26	OPPOSITION FILED	PARTY TYPE : OPPONENT OPPONENT : GIESECKE & DEVRIENT GMBH EFFECTIVE DATE : 20170120
EP2038692 A2	20170322	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2038692 B1	20160420	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2253478 A2	20101124	LSPB	+	published / reissued	
EP2253478 A2	20101124	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20100614
EP2253478 A2	20111012	LSRE	RIN1	INVENTOR (CORRECTION)	PARTY TYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD, A.
EP2253478 A2	20111012	LSRE	RIN1	INVENTOR (CORRECTION)	PARTY TYPE : INVENTOR INVENTOR : HURT, MARK, J.
EP2253478 A2	20111012	LSRE	RIN1	INVENTOR (CORRECTION)	PARTY TYPE : INVENTOR INVENTOR : JORDAN, GREGORY, R.
EP2253478 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTY TYPE : INVENTOR INVENTOR : JORDAN, GREGORY, R.
EP2253478 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTY TYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD, A.
EP2253478 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTY TYPE : INVENTOR INVENTOR : HURT, MARK, J.
EP2253478 A2	20170104	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20161130
EP2253479 A2	20101124	LSPB	+	published / reissued	
EP2253479 A2	20101124	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20100614
EP2253479 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : JORDAN, GREGORY, R.
EP2253479 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : HURT, MARK, J.
EP2253479 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : STEENBLIK, RICHARD, A.
EP2253479 A2	20140917	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20140818

EP2253480 A2	20101124	LSPB	+	published / reissued	
EP2253480 A2	20101124	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20100623
EP2253480 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : JORDAN, GREGORY R.
EP2253480 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : HURT, MARK J.
EP2253480 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : STEENBLIK, RICHARD A.
EP2253480 A2	20140917	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20140818
EP2258560 A2	20101208	LSPB	+	published / reissued	
EP2258560 A2	20101208	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20100527
EP2258560 A2	20110921	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD, A.
EP2258560 A2	20110921	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK, J.
EP2258560 A2	20110921	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY, R.
EP2258560 A2	20120222	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20120120
EP2258560 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY, R.
EP2258560 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD, A.
EP2258560 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK, J.
EP2258560 A2	20170510	LSRV	-18R	REFUSED	EFFECTIVE DATE : 20161219
EP2258561 A2	20101208	LSPB	+	published / reissued	
EP2258561 A2	20101208	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20100623
EP2258561 A2	20111012	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD A.
EP2258561 A2	20111012	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK J.
EP2258561 A2	20111012	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY R.
EP2258561 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK J.
EP2258561 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD A.
EP2258561 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY R.
EP2258561 A2	20170104	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20161130
EP2284016 A2	20110216	LSPB	+	published / reissued	
EP2284016 A2	20110216	LSES	+17P	REQUEST FOR	EFFECTIVE DATE : 20101123

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EP2284016 A2	20111005	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD A.
EP2284016 A2	20111005	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK J.
EP2284016 A2	20111005	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY R.
EP2284016 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK J.
EP2284016 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD A.
EP2284016 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY R.
EP2284016 A2	20170104	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20161202
EP2284017 A2	20110216	LSPB	+	published / reissued	
EP2284017 A2	20110216	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20101124
EP2284017 A2	20111005	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD A.
EP2284017 A2	20111005	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK J.
EP2284017 A2	20111005	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY R.
EP2284017 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY R.
EP2284017 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD A.
EP2284017 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK J.
EP2284017 A2	20170104	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20161202
EP2284018 A2	20110216	LSPB	+	published / reissued	
EP2284018 A2	20110216	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20101125
EP2284018 A2	20111005	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD A.
EP2284018 A2	20111005	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK J.
EP2284018 A2	20111005	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY R.
EP2284018 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY R.
EP2284018 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD A.
EP2284018 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK J.

EP2284018 A2	20170104	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20161202
EP2311647 A2	20110420	LSPB	+	published / reissued	
EP2311647 A2	20110420	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20101126
EP2311647 A2	20111012	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD A.
EP2311647 A2	20111012	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK J.
EP2311647 A2	20111012	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY R.
EP2311647 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 15/00 20060101AFI20111230BHEP
EP2311647 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/22 20060101ALI20111230BHEP
EP2311647 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 3/00 20060101ALI20111230BHEP
EP2311647 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 15/10 20060101ALI20111230BHEP
EP2311647 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 3/04 20060101ALI20111230BHEP
EP2311647 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/06 20060101ALI20111230BHEP
EP2311647 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B44F 1/06 20060101ALI20111230BHEP
EP2311647 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B44F 1/10 20060101ALI20111230BHEP
EP2311647 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD A.
EP2311647 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY R.
EP2311647 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK J.
EP2311647 A2	20170308	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B44F 1/06 20060101ALI20170131BHEP
EP2311647 A2	20170308	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B44F 1/10 20060101ALI20170131BHEP

EP2311647 A2	20170308	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 3/00 20060101ALI20170131BHEP
EP2311647 A2	20170308	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 3/04 20060101ALI20170131BHEP
EP2311647 A2	20170308	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/06 20060101AFI20170131BHEP
EP2311647 A2	20170308	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 25/41 20140101ALI20170131BHEP
EP2311647 A2	20170308	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 25/00 20140101ALI20170131BHEP
EP2311647 A2	20170308	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 25/342 20140101ALI20170131BHEP
EP2311647 A2	20170308	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : D21H 21/44 20060101ALI20170131BHEP
EP2311647 A2	20170308	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 25/29 20140101ALI20170131BHEP
EP2311647 A2	20170308	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/22 20060101ALI20170131BHEP
EP2332737 A2	20110615	LSPB	+	published / reissued	
EP2332737 A2	20110615	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20101125
EP2332737 A2	20111012	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD
EP2332737 A2	20111012	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK J.
EP2332737 A2	20111012	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY R.
EP2332737 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 15/00 20060101AFI20120104BHEP
EP2332737 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/22 20060101ALI20120104BHEP
EP2332737 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 3/00 20060101ALI20120104BHEP
EP2332737 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL :

					B42D 15/10 20060101ALI20120104BHEP
EP2332737 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 3/04 20060101ALI20120104BHEP
EP2332737 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B44F 1/06 20060101ALI20120104BHEP
EP2332737 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B44F 1/10 20060101ALI20120104BHEP
EP2332737 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/06 20060101ALI20120104BHEP
EP2332737 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY R.
EP2332737 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD
EP2332737 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK J.
EP2332737 A2	20170208	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20170105
EP2335943 A2	20110622	LSPB	+	published / reissued	
EP2335943 A2	20110622	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110128
EP2335943 A2	20111012	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD A.
EP2335943 A2	20111012	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK J.
EP2335943 A2	20111012	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY R.
EP2335943 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 15/00 20060101AFI20111230BHEP
EP2335943 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/22 20060101ALI20111230BHEP
EP2335943 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 3/00 20060101ALI20111230BHEP
EP2335943 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 15/10 20060101ALI20111230BHEP
EP2335943 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B44F 1/06 20060101ALI20111230BHEP
EP2335943 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC

					CLASSIFICATIONSCHEME : B44F 1/10 20060101ALI20111230BHEP
EP2335943 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/06 20060101ALI20111230BHEP
EP2335943 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 3/04 20060101ALI20111230BHEP
EP2335943 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK J.
EP2335943 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY R.
EP2335943 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD A.
EP2335943 A2	20131023	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20130920
EP2335943 A2	20140115	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : D21H 21/44 20060101AFI20131212BHEP
EP2335943 A2	20140319	LSGT	+INTG	ANNOUNCEMENT OF INTENTION TO GRANT	EFFECTIVE DATE : 20140219
EP2335943 A2	20140820	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2335943 A2	20140829	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2335943 A2	20140915	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 683547 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20140915
EP2335943 A2	20140924	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2335943 A2	20141002	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602004045701 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20141002
EP2335943 A2	20141009	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2505118 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20141009
EP2335943 A2	20141112	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : T3
EP2335943 A2	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT

EP2335943 A2	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	LAPSED DATE : 20141222 COUNTRY OF REF DOCUMENT : BG NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141120
EP2335943 A2	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : GR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141121
EP2335943 A2	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : FI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140820
EP2335943 A2	20150227	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IS NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141220
EP2335943 A2	20150430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : EE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140820
EP2335943 A2	20150430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140820
EP2335943 A2	20150430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : RO NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140820
EP2335943 A2	20150521	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602004045701 COUNTRY OF REF DOCUMENT : DE
EP2335943 A2	20150629	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HU REF LEGAL EVENT CODE : AG4A REF DOCUMENT NUMBER : E023032 COUNTRY OF REF DOCUMENT : HU
EP2335943 A2	20150630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LU NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141122

EP2335943 A2	20150630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : MC NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140820
EP2335943 A2	20150630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : BE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20141130
EP2335943 A2	20150729	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20150521
EP2335943 A2	20151123	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 12
EP2335943 A2	20151130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140820
EP2335943 A2	20160129	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20151123 YEAR OF FEE PAYMENT : 12
EP2335943 A2	20160129	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20151123 YEAR OF FEE PAYMENT : 12
EP2335943 A2	20160129	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20151123 YEAR OF FEE PAYMENT : 12
EP2335943 A2	20160129	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20151126 YEAR OF FEE PAYMENT : 12
EP2335943 A2	20160129	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20151124 YEAR OF FEE PAYMENT : 12
EP2335943 A2	20160229	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20151123 YEAR OF FEE PAYMENT : 12
EP2335943 A2	20160229	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20151102 YEAR OF FEE PAYMENT : 12
EP2335943 A2	20160229	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : HU PAYMENT DATE : 20151112 YEAR OF FEE PAYMENT : 12
EP2335943 A2	20160229	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20151126 YEAR OF FEE PAYMENT : 12
EP2335943 A2	20160229	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20151119 YEAR OF FEE PAYMENT : 12
EP2335943 A2	20160229	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20151125 YEAR OF FEE PAYMENT : 12
EP2335943 A2	20160229	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID	COUNTRY OF REF DOCUMENT : CZ

				TO NATIONAL OFFICE	PAYMENT DATE : 20151104 YEAR OF FEE PAYMENT : 12
EP2335943 A2	20160229	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20151120 YEAR OF FEE PAYMENT : 12
EP2335943 A2	20160429	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20151130 YEAR OF FEE PAYMENT : 12
EP2335943 A2	20160630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CY NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140820
EP2335943 A2	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : BE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140820
EP2335943 A2	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : TR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140820
EP2335943 A2	20161123	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 13
EP2335943 A2	20170131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20161123 YEAR OF FEE PAYMENT : 13
EP2335943 A2	20170131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20161126 YEAR OF FEE PAYMENT : 13
EP2335943 A2	20170131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20161128 YEAR OF FEE PAYMENT : 13
EP2335943 A2	20170131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20161128 YEAR OF FEE PAYMENT : 13
EP2335943 A2	20170131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20161123 YEAR OF FEE PAYMENT : 13
EP2335943 A2	20170131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20161123 YEAR OF FEE PAYMENT : 13
EP2335943 A2	20170131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : HU PAYMENT DATE : 20161109 YEAR OF FEE PAYMENT : 13
EP2335943 A2	20170131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20161123 YEAR OF FEE PAYMENT : 13
EP2335943 A2	20170131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : CZ PAYMENT DATE : 20161111 YEAR OF FEE PAYMENT : 13

EP2335943 A2	20170228	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : PL PAYMENT DATE : 20161104 YEAR OF FEE PAYMENT : 13
EP2335943 A2	20170228	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20161125 YEAR OF FEE PAYMENT : 13
EP2335943 A2	20170228	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20161102 YEAR OF FEE PAYMENT : 13
EP2335943 A2	20170228	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20161124 YEAR OF FEE PAYMENT : 13
EP2335943 A2	20170228	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20161128 YEAR OF FEE PAYMENT : 13
EP2335943 B1	20140820	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2335944 A2	20110622	LSPB	+	published / reissued	
EP2335944 A2	20110622	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20101125
EP2335944 A2	20111012	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD
EP2335944 A2	20111012	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK J.
EP2335944 A2	20111012	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY R.
EP2335944 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 15/00 20060101AFI20120104BHEP
EP2335944 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/22 20060101ALI20120104BHEP
EP2335944 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 3/00 20060101ALI20120104BHEP
EP2335944 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 15/10 20060101ALI20120104BHEP
EP2335944 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 3/04 20060101ALI20120104BHEP
EP2335944 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B44F 1/06 20060101ALI20120104BHEP
EP2335944 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B44F 1/10 20060101ALI20120104BHEP
EP2335944 A2	20120208	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : IPC CLASSIFICATIONSYMBOL :

					G02B 27/06 20060101ALI20120104BHEP
EP2335944 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY R.
EP2335944 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD
EP2335944 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK J.
EP2335944 A2	20170208	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20170105
EP2365374 A2	20110914	LSPB	+	published / reissued	
EP2365374 A2	20110914	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110503
EP2365374 A2	20111130	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/10 20060101AFI20111027BHEP
EP2365374 A2	20111130	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/00 20060101ALI20111027BHEP
EP2365374 A2	20111130	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/10 20060101ALI20111027BHEP
EP2365374 A2	20111130	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : D21C 9/10 20060101ALI20111027BHEP
EP2365374 A2	20130102	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20121207
EP2365374 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : HURT, MARK J.
EP2365374 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : JORDAN, GREGORY R.
EP2365374 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : STEENBLIK, RICHARD A.
EP2365375 A2	20110914	LSPB	+	published / reissued	
EP2365375 A2	20110914	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110503
EP2365375 A2	20111012	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD A.
EP2365375 A2	20111012	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK J.
EP2365375 A2	20111012	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY R.
EP2365375 A2	20111130	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/10 20060101AFI20111027BHEP
EP2365375 A2	20111130	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 15/00 20060101ALI20111027BHEP
EP2365375 A2	20111130	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 15/10 20060101ALI20111027BHEP
EP2365375 A2	20111130	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : D21C 9/10 20060101ALI20111027BHEP

EP2365375 A2	20130116	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20121217
EP2365375 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD A.
EP2365375 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK J.
EP2365375 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY R.
EP2365375 A2	20170215	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 15/00 20060101ALI20170111BHEP
EP2365375 A2	20170215	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 25/00 20140101AFI20170111BHEP
EP2365375 A2	20170215	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/22 20060101ALI20170111BHEP
EP2365375 A2	20170215	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 25/342 20140101ALI20170111BHEP
EP2365375 A2	20170301	LSGT	+INTG	ANNOUNCEMENT OF INTENTION TO GRANT	EFFECTIVE DATE : 20170201
EP2365376 A2	20110914	LSPB	+	published / reissued	
EP2365376 A2	20110914	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110503
EP2365376 A2	20111012	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD A.
EP2365376 A2	20111012	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK J.
EP2365376 A2	20111012	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY R.
EP2365376 A2	20111130	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/10 20060101AFI20111027BHEP
EP2365376 A2	20111130	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 15/00 20060101ALI20111027BHEP
EP2365376 A2	20111130	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 15/10 20060101ALI20111027BHEP
EP2365376 A2	20111130	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : D21C 9/10 20060101ALI20111027BHEP
EP2365376 A2	20130102	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20121207
EP2365376 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY R.

EP2365376 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK J.
EP2365376 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD A.
EP2365376 A2	20150422	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 15/00 20060101ALI20150313BHEP
EP2365376 A2	20150422	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B41M 3/14 20060101AFI20150313BHEP
EP2365376 A2	20150422	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/10 20060101ALI20150313BHEP
EP2365376 A2	20150520	LSGT	+INTG	ANNOUNCEMENT OF INTENTION TO GRANT	EFFECTIVE DATE : 20150421
EP2365376 A2	20151007	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2365376 A2	20151015	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2365376 A2	20151015	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 753503 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20151015
EP2365376 A2	20151104	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2365376 A2	20151119	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602006046895 COUNTRY OF REF DOCUMENT : DE
EP2365376 A2	20151223	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2554859 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20151223
EP2365376 A2	20160225	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2365376 A2	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151007
EP2365376 A2	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160207

EP2365376 A2	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151007
EP2365376 A2	20160512	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 11
EP2365376 A2	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160108
EP2365376 A2	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160208
EP2365376 A2	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151007
EP2365376 A2	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151007
EP2365376 A2	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151007
EP2365376 A2	20160708	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602006046895 COUNTRY OF REF DOCUMENT : DE
EP2365376 A2	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151007
EP2365376 A2	20160729	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20160520 YEAR OF FEE PAYMENT : 11
EP2365376 A2	20160729	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160527 YEAR OF FEE PAYMENT : 11
EP2365376 A2	20160729	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20160512

EP2365376 A2	20160729	LSFE	+PGFP	OFFICE POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	YEAR OF FEE PAYMENT : 11 COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160512 YEAR OF FEE PAYMENT : 11
EP2365376 A2	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151007
EP2365376 A2	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151007
EP2365376 A2	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151007
EP2365376 A2	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151007
EP2365376 A2	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20160531
EP2365376 A2	20160831	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20160511 YEAR OF FEE PAYMENT : 11
EP2365376 A2	20160831	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160512 YEAR OF FEE PAYMENT : 11
EP2365376 A2	20160831	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20160516 YEAR OF FEE PAYMENT : 11
EP2365376 A2	20160831	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20160531 YEAR OF FEE PAYMENT : 11
EP2365376 A2	20160914	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20160708
EP2365376 A2	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151007
EP2365376 A2	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151007

EP2365376 A2	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LU NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2365376 A2	20170222	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2365376 B1	20151007	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2365377 A2	20110914	LSPB	+	published / reissued	
EP2365377 A2	20110914	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110503
EP2365377 A2	20111130	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/10 20060101AFI20111027BHEP
EP2365377 A2	20111130	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/00 20060101ALI20111027BHEP
EP2365377 A2	20111130	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/10 20060101ALI20111027BHEP
EP2365377 A2	20111130	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : D21C 9/10 20060101ALI20111027BHEP
EP2365377 A2	20130109	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20121211
EP2365377 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : JORDAN, GREGORY R.
EP2365377 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : STEENBLIK, RICHARD A.
EP2365377 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : HURT, MARK J.
EP2365377 A2	20140924	LSDW	-18D	DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20140418
EP2365378 A2	20110914	LSPB	+	published / reissued	
EP2365378 A2	20110914	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110503
EP2365378 A2	20111130	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/10 20060101AFI20111027BHEP
EP2365378 A2	20111130	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/00 20060101ALI20111027BHEP
EP2365378 A2	20111130	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/10 20060101ALI20111027BHEP
EP2365378 A2	20111130	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : D21C 9/10 20060101ALI20111027BHEP
EP2365378 A2	20130116	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20121217
EP2365378 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : HURT, MARK J.
EP2365378 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : JORDAN, GREGORY R.
EP2365378 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : STEENBLIK, RICHARD A.
EP2384902 A2	20111109	LSPB	+	published / reissued	
EP2384902 A2	20111109	LSES	+17P	REQUEST FOR EXAMINATION	EFFECTIVE DATE : 20110713

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EP2384902 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 15/00 20060101AFI20120510BHEP
EP2384902 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 3/00 20060101ALI20120510BHEP
EP2384902 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B44F 1/10 20060101ALI20120510BHEP
EP2384902 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B44F 1/06 20060101ALI20120510BHEP
EP2384902 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/06 20060101ALI20120510BHEP
EP2384902 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 15/10 20060101ALI20120510BHEP
EP2384902 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/22 20060101ALI20120510BHEP
EP2384902 A2	20120926	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 15/10 20060101ALI20120823BHEP
EP2384902 A2	20120926	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 3/00 20060101ALI20120823BHEP
EP2384902 A2	20120926	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B44F 1/06 20060101ALI20120823BHEP
EP2384902 A2	20120926	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 15/00 20060101AFI20120823BHEP
EP2384902 A2	20120926	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/06 20060101ALI20120823BHEP
EP2384902 A2	20120926	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B44F 1/10 20060101ALI20120823BHEP
EP2384902 A2	20120926	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/22 20060101ALI20120823BHEP
EP2384902 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD A.
EP2384902 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY R.

EP2384902 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK J.
EP2384902 A2	20170222	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20170119
EP2385412 A2	20111109	LSPB	+	published / reissued	
EP2385412 A2	20111109	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110328
EP2385412 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B44F 1/06 20060101ALI20120509BHEP
EP2385412 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/22 20060101AFI20120509BHEP
EP2385412 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/10 20060101ALI20120509BHEP
EP2385412 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 3/00 20060101ALI20120509BHEP
EP2385412 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B44F 1/10 20060101ALI20120509BHEP
EP2385412 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/00 20060101ALI20120509BHEP
EP2385412 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/06 20060101ALI20120509BHEP
EP2385412 A2	20121114	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 3/00 20060101ALI20121010BHEP
EP2385412 A2	20121114	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B44F 1/06 20060101ALI20121010BHEP
EP2385412 A2	20121114	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/10 20060101ALI20121010BHEP
EP2385412 A2	20121114	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/00 20060101ALI20121010BHEP
EP2385412 A2	20121114	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/22 20060101AFI20121010BHEP
EP2385412 A2	20121114	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/06 20060101ALI20121010BHEP
EP2385412 A2	20121114	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B44F 1/10 20060101ALI20121010BHEP
EP2385412 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : JORDAN, GREGORY R.
EP2385412 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : STEENBLIK, RICHARD A.
EP2385412 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : HURT, MARK J.
EP2385413 A2	20111109	LSPB	+	published / reissued	
EP2385413 A2	20111109	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110518
EP2385413 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/00 20060101ALI20120509BHEP
EP2385413 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/22 20060101AFI20120509BHEP
EP2385413 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 3/00 20060101ALI20120509BHEP
EP2385413 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/10 20060101ALI20120509BHEP
EP2385413 A2	20120613	LSRE	RIC1	CLASSIFICATION	IPC : G02B 27/06

				(CORRECTION)	20060101ALI20120509BHEP
EP2385413 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B44F 1/10 20060101ALI20120509BHEP
EP2385413 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B44F 1/06 20060101ALI20120509BHEP
EP2385413 A2	20121226	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B44F 1/10 20060101ALI20121122BHEP
EP2385413 A2	20121226	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B44F 1/06 20060101ALI20121122BHEP
EP2385413 A2	20121226	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/00 20060101ALI20121122BHEP
EP2385413 A2	20121226	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/10 20060101ALI20121122BHEP
EP2385413 A2	20121226	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 3/00 20060101ALI20121122BHEP
EP2385413 A2	20121226	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/06 20060101ALI20121122BHEP
EP2385413 A2	20121226	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/22 20060101AFI20121122BHEP
EP2385413 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : HURT, MARK J.
EP2385413 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : STEENBLIK, RICHARD A.
EP2385413 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : JORDAN, GREGORY R.
EP2388637 A2	20111123	LSPB	+	published / reissued	
EP2388637 A2	20111123	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110328
EP2388637 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/00 20060101ALI20120509BHEP
EP2388637 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/10 20060101ALI20120509BHEP
EP2388637 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/06 20060101ALI20120509BHEP
EP2388637 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/22 20060101AFI20120509BHEP
EP2388637 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B44F 1/06 20060101ALI20120509BHEP
EP2388637 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 3/00 20060101ALI20120509BHEP
EP2388637 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B44F 1/10 20060101ALI20120509BHEP
EP2388637 A2	20121114	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B44F 1/06 20060101ALI20121010BHEP
EP2388637 A2	20121114	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B44F 1/10 20060101ALI20121010BHEP
EP2388637 A2	20121114	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/00 20060101ALI20121010BHEP
EP2388637 A2	20121114	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/10 20060101ALI20121010BHEP
EP2388637 A2	20121114	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/06 20060101ALI20121010BHEP
EP2388637 A2	20121114	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/22 20060101AFI20121010BHEP

EP2388637 A2	20121114	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 3/00 20060101ALI20121010BHEP
EP2388637 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : HURT, MARK J.
EP2388637 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : STEENBLIK, RICHARD A.
EP2388637 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : JORDAN, GREGORY R.
EP2397883 A2	20111221	LSPB	+	published / reissued	
EP2397883 A2	20111221	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110328
EP2397883 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/00 20060101ALI20120509BHEP
EP2397883 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B44F 1/06 20060101ALI20120509BHEP
EP2397883 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/10 20060101ALI20120509BHEP
EP2397883 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/22 20060101AFI20120509BHEP
EP2397883 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/06 20060101ALI20120509BHEP
EP2397883 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B44F 1/10 20060101ALI20120509BHEP
EP2397883 A2	20120613	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 3/00 20060101ALI20120509BHEP
EP2397883 A2	20121114	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/10 20060101ALI20121010BHEP
EP2397883 A2	20121114	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B44F 1/06 20060101ALI20121010BHEP
EP2397883 A2	20121114	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/06 20060101ALI20121010BHEP
EP2397883 A2	20121114	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/00 20060101ALI20121010BHEP
EP2397883 A2	20121114	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/22 20060101AFI20121010BHEP
EP2397883 A2	20121114	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B44F 1/10 20060101ALI20121010BHEP
EP2397883 A2	20121114	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 3/00 20060101ALI20121010BHEP
EP2397883 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : STEENBLIK, RICHARD A.
EP2397883 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : JORDAN, GREGORY R.
EP2397883 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : HURT, MARK J.
EP2400338 A2	20111228	LSPB	+	published / reissued	
EP2400338 A2	20111228	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110503
EP2400338 A2	20120425	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/10 20060101AFI20120320BHEP
EP2400338 A2	20120425	LSRE	RIC1	CLASSIFICATION	CLASSIFICATIONSCHEME :

				(CORRECTION)	IPC CLASSIFICATIONSYMBOL : B42D 15/00 20060101ALI20120320BHEP
EP2400338 A2	20120425	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 15/10 20060101ALI20120320BHEP
EP2400338 A2	20120425	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : D21C 9/10 20060101ALI20120320BHEP
EP2400338 A2	20130116	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20121217
EP2400338 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD A.
EP2400338 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY R.
EP2400338 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK J.
EP2400338 A2	20140305	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/10 20060101AFI20140124BHEP
EP2400338 A2	20140305	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : B42D 15/00 20060101ALI20140124BHEP
EP2400338 A2	20140305	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G02B 27/22 20060101ALI20140124BHEP
EP2400338 A2	20150715	LSGT	+INTG	ANNOUNCEMENT OF INTENTION TO GRANT	EFFECTIVE DATE : 20150619
EP2400338 A2	20151216	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2400338 A2	20151231	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2400338 A2	20160113	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2400338 A2	20160115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 765829 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160115
EP2400338 A2	20160128	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602006047513 COUNTRY OF REF DOCUMENT : DE
EP2400338 A2	20160316	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2563755 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20160316

EP2400338 A2	20160425	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2400338 A2	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151216
EP2400338 A2	20160512	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 11
EP2400338 A2	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : FI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151216
EP2400338 A2	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : GR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160317
EP2400338 A2	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LV NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151216
EP2400338 A2	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : NL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151216
EP2400338 A2	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CZ NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151216
EP2400338 A2	20160729	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20160512 YEAR OF FEE PAYMENT : 11
EP2400338 A2	20160729	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160512 YEAR OF FEE PAYMENT : 11
EP2400338 A2	20160729	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160527 YEAR OF FEE PAYMENT : 11
EP2400338 A2	20160729	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20160520 YEAR OF FEE PAYMENT : 11
EP2400338 A2	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO	COUNTRY OF REF DOCUMENT : IS NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO

				EPO	PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160416
EP2400338 A2	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151216
EP2400338 A2	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20160531
EP2400338 A2	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151216
EP2400338 A2	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160418
EP2400338 A2	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151216
EP2400338 A2	20160831	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20160511 YEAR OF FEE PAYMENT : 11
EP2400338 A2	20160831	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20160516 YEAR OF FEE PAYMENT : 11
EP2400338 A2	20160831	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160512 YEAR OF FEE PAYMENT : 11
EP2400338 A2	20160831	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20160531 YEAR OF FEE PAYMENT : 11
EP2400338 A2	20160919	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602006047513 COUNTRY OF REF DOCUMENT : DE
EP2400338 A2	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151216
EP2400338 A2	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT

LAPSED DATE : 20151216					
EP2400338 A2	20161123	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20160919
EP2400338 A2	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : BE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151216
EP2400338 A2	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LU NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160518
EP2400338 A2	20170222	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2400338 A2	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151216
EP2400338 B1	20151216	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2410370 A1	20120125	LSPB	+	published / reissued	
EP2410370 A1	20120125	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110621
EP2410370 A1	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : HURT, MARK, J.
EP2410370 A1	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : JORDAN, GREGORY, R.
EP2410370 A1	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : STEENBLIK, RICHARD, A.
EP2410370 A1	20150805	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20150707
EP2450735 A2	20120509	LSPB	+	published / reissued	
EP2450735 A2	20120509	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20111014
EP2450735 A2	20130109	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : D21C 9/10 20060101ALI20121204BHPEP
EP2450735 A2	20130109	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/00 20060101ALI20121204BHPEP
EP2450735 A2	20130109	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/10 20060101ALI20121204BHPEP
EP2450735 A2	20130109	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/10 20060101AFI20121204BHPEP
EP2450735 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : HURT, MARK, J.
EP2450735 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : STEENBLIK, RICHARD, A.
EP2450735 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : JORDAN, GREGORY, R.
EP2450735 A2	20140312	LSES	+17Q	FIRST EXAMINATION	EFFECTIVE DATE : 20140206

EP2458423 A2	20120530	LSPB	+	REPORT published / reissued	
EP2458423 A2	20120530	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120224
EP2458423 A2	20130109	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/00 20060101ALI20121206BHEP
EP2458423 A2	20130109	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/10 20060101ALI20121206BHEP
EP2458423 A2	20130109	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : D21C 9/10 20060101ALI20121206BHEP
EP2458423 A2	20130109	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/10 20060101AFI20121206BHEP
EP2458423 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : HURT, MARK J.
EP2458423 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : STEENBLIK, RICHARD A.
EP2458423 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : JORDAN, GREGORY R.
EP2458423 A2	20140312	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20140206
EP2458423 A2	20141126	LSDW	-18D	DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20140617
EP2460667 A2	20120606	LSPB	+	published / reissued	
EP2460667 A2	20120606	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20111014
EP2460667 A2	20120912	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/00 20060101AFI20120803BHEP
EP2460667 A2	20120912	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 3/00 20060101ALI20120803BHEP
EP2460667 A2	20120912	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/22 20060101ALI20120803BHEP
EP2460667 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : HURT, MARK, J.
EP2460667 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : JORDAN, GREGORY, R.
EP2460667 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : STEENBLIK, RICHARD, A.
EP2461203 A2	20120606	LSPB	+	published / reissued	
EP2461203 A2	20120606	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120110
EP2461203 A2	20130109	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/10 20060101AFI20121204BHEP
EP2461203 A2	20130109	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/10 20060101ALI20121204BHEP
EP2461203 A2	20130109	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : D21C 9/10 20060101ALI20121204BHEP
EP2461203 A2	20130109	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/00 20060101ALI20121204BHEP
EP2461203 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : STEENBLIK, RICHARD, A.
EP2461203 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : HURT, MARK, J.
EP2461203 A2	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : JORDAN, GREGORY, R.

EP2461203 A2	20140312	LSSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20140206
EP2464527 A1	20120620	LSPB	+	published / reissued	
EP2464527 A1	20120620	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120312
EP2464527 A1	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : CAPE, SAMUEL, M.
EP2464527 A1	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : HURT, MARK, J.
EP2464527 A1	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : STEENBLIK, RICHARD, A.
EP2464527 A1	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : JORDAN, GREGORY, R.
EP2474424 A2	20120711	LSPB	+	published / reissued	
EP2474424 A2	20120711	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120109
EP2474424 A2	20130925	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/00 20060101AFI20130822BHEP
EP2474424 A2	20130925	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/22 20060101ALI20130822BHEP
EP2474424 A2	20130925	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/10 20060101ALI20130822BHEP
EP2474424 A2	20130925	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/06 20060101ALI20130822BHEP
EP2474424 A2	20130925	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 3/00 20060101ALI20130822BHEP
EP2474424 A2	20130925	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B44F 1/06 20060101ALI20130822BHEP
EP2474424 A2	20130925	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B44F 1/10 20060101ALI20130822BHEP
EP2474424 A2	20131009	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : STEENBLIK, RICHARD, A.
EP2474424 A2	20131009	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : JORDAN, GREGORY, R.
EP2474424 A2	20131009	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : HURT, MARK, J.
EP2474424 A2	20140108	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 3/00 20060101ALI20131204BHEP
EP2474424 A2	20140108	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/22 20060101ALI20131204BHEP
EP2474424 A2	20140108	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B44F 1/10 20060101ALI20131204BHEP
EP2474424 A2	20140108	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : G02B 27/06 20060101ALI20131204BHEP
EP2474424 A2	20140108	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B44F 1/06 20060101ALI20131204BHEP
EP2474424 A2	20140108	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/10 20060101ALI20131204BHEP
EP2474424 A2	20140108	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : B42D 15/00 20060101AFI20131204BHEP
EP2585861 A1	20130501	LSPB	+	published / reissued	
EP2585861 A1	20130501	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20130117

EP2585861 A1	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : CAPE, SAMUEL, M.
EP2585861 A1	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : HURT, MARK, J.
EP2585861 A1	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : STEENBLIK, RICHARD, A.
EP2585861 A1	20131002	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : JORDAN, GREGORY, R.
EP2585861 A1	20170125	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20161222
EP2660070 A1	20131106	LSPB	+	published / reissued	
EP2660070 A1	20140611	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20140423
EP2660070 A1	20161228	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20161129
ES2434443 T3	20131216	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2504890 T3	20141008	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2505118 T3	20141009	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2554859 T3	20151223	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2563755 T3	20160316	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2586215 T3	20161013	LSGT	+	granted / extensions (spc, cpc, pte)	
HK1103810 A1	20111021	LSGT	+	granted / extensions (spc, cpc, pte)	
HK1103810 A3	20071228	LSPB	+	published / reissued	
IL175807 A0	20150630	LSGT	+FF	PATENT GRANTED	
IL175807 A0	20150831	LSFE	+KB20	PATENT RENEWED FOR 20 YEARS	
IL175807 A1	20150226	LSPB	+	published / reissued	
IL187440 A1	20161229	LSPB	+	published / reissued	
IL196197 A0	20130324	LSGT	+FF	PATENT GRANTED	
IL196197 A0	20130530	LSFE	+KB20	PATENT RENEWED FOR 20 YEARS	
IL196197 A1	20121129	LSPB	+	published / reissued	
IL211145 A0	20150630	LSGT	+FF	PATENT GRANTED	
IL211145 A0	20150831	LSFE	+KB20	PATENT RENEWED FOR 20 YEARS	
IL211145 A1	20150226	LSPB	+	published / reissued	
IL218012 A0	20160229	LSGT	+FF	PATENT GRANTED	
IL218012 A0	20160421	LSFE	+KB20	PATENT RENEWED FOR 20 YEARS	
IL218012 A1	20151029	LSPB	+	published / reissued	
IN00037CN2013 A	20160831	LSPB	+	published / reissued	
IN00194MN2009 A	20090703	LSPB	+	published / reissued	
IN02077CN2012 A	20130426	LSPB	+	published / reissued	

IN02558DN2011 A	20121207	LSPB	+	published / reissued	
IN02559DN2011 A	20121207	LSPB	+	published / reissued	
IN02894DN2006 A	20070420	LSPB	+	published / reissued	
IN09625DN2007 A	20080620	LSPB	+	published / reissued	
JP2007514188 A2	20070531	LSPB	+	published / reissued	
JP2007514188 T2	20070531	LSPB	+	published / reissued	
JP2008545550 A2	20081218	LSPB	+	published / reissued	
JP2008545550 T2	20081218	LSPB	+	published / reissued	
JP2009543138 A2	20091203	LSPB	+	published / reissued	
JP2009543138 T2	20091203	LSPB	+	published / reissued	
JP2011170351 A2	20110901	LSPB	+	published / reissued	
JP2011170351 A2	20130220	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130219
JP2011170351 A2	20130521	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130520
JP2011170351 A2	20130703	LSRV	-A02	DECISION OF REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20130702
JP2011170351 A2	20131106	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20131105
JP2011170351 A2	20140107	LSAL	A911	TRANSFER OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A911 EFFECTIVE DATE : 20140106
JP2011170351 A2	20140310	LSAL	-A912	REMOVAL OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A912 EFFECTIVE DATE : 20140307
JP2011175259 A2	20110908	LSPB	+	published / reissued	
JP2013501661 T2	20130117	LSPB	+	published / reissued	
JP2013501661 T2	20130720	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20130719
JP2013501661 T2	20140625	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20140624
JP2013501661 T2	20141009	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20141008
JP2013501661 T2	20150625	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2013501661 T2	20150701	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20150630
JP2013501661 T2	20150730	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20150721
JP2013537640 A2	20131003	LSPB	+	published / reissued	
JP2013537640 T2	20131003	LSPB	+	published /	

				reissued	
JP2013537640 T2	20140614	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20140613
JP2013537640 T2	20140614	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20140613
JP2013537640 T2	20150311	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20150310
JP2013537640 T2	20150610	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20150610
JP2013537640 T2	20151118	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20151117
JP2013537640 T2	20160316	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20160316
JP2013537640 T2	20160830	LSRV	-A02	DECISION OF REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20160830
JP2013537640 T2	20161226	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20161226
JP2013537640 T2	20170209	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20170124
JP2013537640 T2	20170214	LSAL	A911	TRANSFER OF RECONSIDERATION BY EXAMINER BEFORE APPEAL (ZENCHI)	TEXT : JAPANESE INTERMEDIATE CODE: A911 EFFECTIVE DATE : 20170213
JP4918364 B2	20120418	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4918364 B2	20071122	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20071121
JP4918364 B2	20080130	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20080121
JP4918364 B2	20090825	LSAS	A711	NOTIFICATION OF CHANGE IN APPLICANT	TEXT : JAPANESE INTERMEDIATE CODE: A711 EFFECTIVE DATE : 20090824
JP4918364 B2	20090915	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20090824
JP4918364 B2	20100811	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20100810
JP4918364 B2	20110211	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110210
JP4918364 B2	20110518	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20110517
JP4918364 B2	20111118	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20111117
JP4918364 B2	20111216	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP4918364 B2	20120111	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20120110

JP4918364 B2	20120112	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01
JP4918364 B2	20120202	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20120130
JP4918364 B2	20120203	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP4918364 B2	20120203	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP4918364 B2	20150203	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4918364 B2	20160202	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP4918364 B2	20170131	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5232779 B2	20130710	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5232779 B2	20100626	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20100625
JP5232779 B2	20100626	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20100625
JP5232779 B2	20121114	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20121113
JP5232779 B2	20130109	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130108
JP5232779 B2	20130307	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP5232779 B2	20130313	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20130312
JP5232779 B2	20130328	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20130325
JP5232779 B2	20130329	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3
JP5232779 B2	20130329	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150
JP5232779 B2	20160315	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5232779 B2	20170314	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5496123 B2	20140521	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5496123 B2	20130313	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130312
JP5496123 B2	20130608	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130607

JP5496123 B2	20130731	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130730
JP5496123 B2	20131029	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20131028
JP5496123 B2	20131218	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20131217
JP5496123 B2	20140128	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20140127
JP5496123 B2	20140210	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP5496123 B2	20140219	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20140218
JP5496123 B2	20140313	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20140304
JP5496123 B2	20140314	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 5496123 COUNTRY OF REF DOCUMENT : JP
JP5496123 B2	20170228	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5527969 B2	20140625	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5527969 B2	20090422	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20090421
JP5527969 B2	20090422	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20090421
JP5527969 B2	20090703	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20090702
JP5527969 B2	20090807	LSAS	A711	NOTIFICATION OF CHANGE IN APPLICANT	TEXT : JAPANESE INTERMEDIATE CODE: A711 EFFECTIVE DATE : 20090806
JP5527969 B2	20090828	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20090806
JP5527969 B2	20120328	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20120327
JP5527969 B2	20120627	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20120626
JP5527969 B2	20120704	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20120703
JP5527969 B2	20130327	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130326
JP5527969 B2	20130627	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130626
JP5527969 B2	20140310	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	

JP5527969 B2	20140319	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20140318
JP5527969 B2	20140424	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20140415
JP5527969 B2	20140425	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150 REF DOCUMENT NUMBER : 5527969 COUNTRY OF REF DOCUMENT : JP
JP5527969 B2	20170411	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250
JP5784015 B2	20150924	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101089435 B1	20111207	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101089435 B1	20091120	LSES	A201	REQUEST FOR EXAMINATION	
KR101089435 B1	20110328	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR101089435 B1	20111026	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR101089435 B1	20111128	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR101089435 B1	20141106	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20141107 YEAR OF FEE PAYMENT : 4
KR101089435 B1	20151106	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20151109 YEAR OF FEE PAYMENT : 5
KR101089435 B1	20161109	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20161110 YEAR OF FEE PAYMENT : 6
KR101225311 B1	20130122	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101225311 B1	20110216	LSES	A201	REQUEST FOR EXAMINATION	
KR101225311 B1	20110802	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR101225311 B1	20120327	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR101225311 B1	20121026	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR101225311 B1	20130116	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR101225311 B1	20151029	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20151029 YEAR OF FEE PAYMENT : 4
KR101225311 B1	20170109	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20170110 YEAR OF FEE PAYMENT : 5
KR101265368 B1	20130520	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101265368 B1	20160425	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20160426 YEAR OF FEE PAYMENT : 4
KR101376434 B1	20140401	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101376434 B1	20120611	LSES	A201	REQUEST FOR EXAMINATION	
KR101376434 B1	20130630	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	

KR101376434 B1	20140128	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR101376434 B1	20140313	LSFE	FPAY	ANNUAL FEE PAYMENT	
KR101376434 B1	20140313	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR101376434 B1	20170307	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20170308 YEAR OF FEE PAYMENT : 4
KR101384015 B1	20140409	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101384015 B1	20110311	LSES	A201	REQUEST FOR EXAMINATION	
KR101384015 B1	20120327	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR101384015 B1	20121030	LSRV	-E601	DECISION TO REFUSE APPLICATION	
KR101384015 B1	20121129	LSRE	AMND	AMENDMENT	
KR101384015 B1	20140206	LSGT	+GRNO	DECISION TO GRANT (AFTER OPPOSITION)	
KR101384015 B1	20140403	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR20060121216 A	20061128	LSPB	+	published / reissued	
KR20080023302 A	20080313	LSPB	+	published / reissued	
KR20080023302 A	20110518	LSES	A201	REQUEST FOR EXAMINATION	
KR20080023302 A	20120613	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20080023302 A	20121218	LSRV	-E601	DECISION TO REFUSE APPLICATION	
KR20080023302 A	20130121	LSRE	AMND	AMENDMENT	
KR20080023302 A	20130307	LSGT	+B701	DECISION TO GRANT	
KR20080023302 A	20130510	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR20090029818 A	20090323	LSPB	+	published / reissued	
KR20110022741 A	20110307	LSPB	+	published / reissued	
KR20110043750 A	20110427	LSPB	+	published / reissued	
KR20120062759 A	20120614	LSPB	+	published / reissued	
KR20120062759 A	20150731	LSES	A201	REQUEST FOR EXAMINATION	
KR20120062759 A	20170428	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR20130092549 A	20130820	LSPB	+	published / reissued	
KR20130092549 A	20160617	LSES	A201	REQUEST FOR EXAMINATION	
MX2007014362 A1	20080422	LSPB	+	published / reissued	
MX2007014362 A1	20090605	LSAS	GB	TRANSFER OR ASSIGNMENT	
MX2007014362 A1	20110902	LSGT	+FG	GRANT OR REGISTRATION	
MX2009000185 A1	20090703	LSPB	+	published / reissued	
MX2009000185 A1	20110505	LSGT	+FG	GRANT OR REGISTRATION	
MX2009000516 A1	20090309	LSPB	+	published / reissued	
MX2009000516 A1	20130419	LSGT	+FG	GRANT OR	

MX2012001784 A1	20120710	LSPB	+	published / reissued	REGISTRATION
MX2013000197 A1	20130628	LSPB	+	published / reissued	
MX2013000197 A1	20141029	LSGT	+FG	GRANT OR REGISTRATION	
MXPA06005763 A1	20060811	LSPB	+	published / reissued	
MXPA06005763 A1	20090529	LSGT	+FG	GRANT OR REGISTRATION	
MXPA06005763 A1	20090605	LSAS	GB	TRANSFER OR ASSIGNMENT	
RU2006121097 A	20071227	LSPB	+	published / reissued	
RU2006121097 A	20080210	LSWD	-FA93	ACKNOWLEDGEMENT OF APPLICATION WITHDRAWN (NO REQUEST FOR EXAMINATION)	EFFECTIVE DATE : 20071123
RU2006121097 A	20080410	LSRE	+FZ9A	APPLICATION NOT WITHDRAWN (CORRECTION OF THE NOTICE OF WITHDRAWAL)	EFFECTIVE DATE : 20080122
RU2007145611 A	20090627	LSPB	+	published / reissued	
RU2007145611 A	20111010	LSWD	-FA92	ACKNOWLEDGEMENT OF APPLICATION WITHDRAWN (LACK OF SUPPLEMENTARY MATERIALS SUBMITTED)	EFFECTIVE DATE : 20110717
RU2007145611 A	20120527	LSRE	+FZ9A	APPLICATION NOT WITHDRAWN (CORRECTION OF THE NOTICE OF WITHDRAWAL)	EFFECTIVE DATE : 20120416
RU2009101282 A	20100810	LSPB	+	published / reissued	
RU2009101282 A	20120227	LSRE	+FZ9A	APPLICATION NOT WITHDRAWN (CORRECTION OF THE NOTICE OF WITHDRAWAL)	EFFECTIVE DATE : 20111229
RU2009101282 A	20130820	LSPB	TH4A	REISSUE OF PATENT SPECIFICATION	
RU2010142167 A	20120420	LSPB	+	published / reissued	
RU2010142167 A	20120420	LSPB	+	published / reissued	
RU2010142168 A	20120420	LSPB	+	published / reissued	
RU2012108183 A	20130920	LSPB	+	published / reissued	
RU2013101539 A	20140727	LSPB	+	published / reissued	
RU2414731 C2	20110320	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2414731 C2	20080210	LSWD	-FA93	ACKNOWLEDGEMENT OF APPLICATION WITHDRAWN (NO REQUEST FOR EXAMINATION)	EFFECTIVE DATE : 20071123
RU2414731 C2	20080410	LSRE	+FZ9A	APPLICATION NOT WITHDRAWN (CORRECTION OF THE NOTICE OF WITHDRAWAL)	EFFECTIVE DATE : 20080122
RU2472192 C2	20130110	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2472192 C2	20111010	LSWD	-FA92	ACKNOWLEDGEMENT OF APPLICATION WITHDRAWN (LACK OF SUPPLEMENTARY MATERIALS SUBMITTED)	EFFECTIVE DATE : 20110717
RU2472192 C2	20120527	LSRE	+FZ9A	APPLICATION NOT WITHDRAWN (CORRECTION OF	EFFECTIVE DATE : 20120416

RU2478998 C2	20130410	LSGT	+	THE NOTICE OF WITHDRAWAL) granted / extensions (spc, cpc, pte)	
RU2478998 C2	20120227	LSRE	+FZ9A	APPLICATION NOT WITHDRAWN (CORRECTION OF THE NOTICE OF WITHDRAWAL)	EFFECTIVE DATE : 20111229
RU2541433 C2	20150210	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2541433 C2	20151010	LSPB	TH4A	REISSUE OF PATENT SPECIFICATION	
RU2602397 C2	20161120	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2602486 C2	20161120	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2602487 C2	20161120	LSGT	+	granted / extensions (spc, cpc, pte)	
TH118696 A	20121227	LSPB	+	published / reissued	
TH36540 B	20130814	LSGT	+	granted / extensions (spc, cpc, pte)	
TH82245 A	20070114	LSPB	+	published / reissued	
TR200602505 T1	20070122	LSPB	+	published / reissued	
TW200643469 A	20061216	LSPB	+	published / reissued	
UA88288 C2	20091012	LSGT	+	granted / extensions (spc, cpc, pte)	
US2005180020 AA	20050818	LSPB	+	published / reissued	
US2007058260 AA	20070315	LSPB	+	published / reissued	
US2008036196 AA	20080214	LSPB	+	published / reissued	
US2008037131 AA	20080214	LSPB	+	published / reissued	
US2008165423 AA	20080710	LSPB	+	published / reissued	
US2008212192 AA	20080904	LSPB	+	published / reissued	
US2008212193 AA	20080904	LSPB	+	published / reissued	
US2009021840 AA	20090122	LSPB	+	published / reissued	
US2009122412 AA	20090514	LSPB	+	published / reissued	
US2010308571 AA	20101209	LSPB	+	published / reissued	
US2011019283 AA	20110127	LSPB	+	published / reissued	
US2011209328 AA	20110901	LSPB	+	published / reissued	
US7333268 BB	20080219	LSGT	+	granted / extensions (spc, cpc, pte)	
US7333268 BB	20050209	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NANOVENTIONS, INC., GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STEENBLIK, RICHARD A.; HURT, MARK J.; JORDAN, GREGORY R.; REEL/FRAME:015664/0475 EFFECTIVE DATE : 20041217
US7333268 BB	20080130	LSGT	PAT1	Patented Case	
US7333268 BB	20080903	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NANOVENTIONS

					HOLDINGS, LLC, GEORGIA OLDPARTY : MERGER; ASSIGNOR:NANOVENTIONS, INC.; REEL/FRAME:021471/0447 EFFECTIVE DATE : 20070101
US7333268 BB	20090112	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NANOVENTIONS HOLDINGS, LLC; REEL/FRAME:022092/0340 EFFECTIVE DATE : 20080925
US7333268 BB	20090112	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC,GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NANOVENTIONS HOLDINGS, LLC; REEL/FRAME:022092/0340 EFFECTIVE DATE : 20080925
US7333268 BB	20110819	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7333268 BB	20140929	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HIGHBRIDGE PRINCIPAL STRATEGIES, LLC, AS COLLATERA OLDPARTY : GRANT OF A SECURITY INTEREST -- PATENTS; ASSIGNORS:CRANE & CO., INC.; VISUAL PHYSICS, LLC; CRANE SECURITY TECHNOLOGIES, INC.; REEL/FRAME:033846/0591 EFFECTIVE DATE : 20140929
US7333268 BB	20150623	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7333268 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, NA, AS ADMINISTRATIVE AGENT, OLDPARTY : PATENT SECURITY AGREEMENT; ASSIGNORS:CRANE & CO., INC.; CRANE SECURITY TECHNOLOGIES, INC.; VISUAL PHYSICS, LLC; REEL/FRAME:040791/0079 EFFECTIVE DATE : 20161201
US7333268 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CRANE & CO., INC., MASSACHUSETTS OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US7333268 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CRANE SECURITY TECHNOLOGIES, INC., NEW HAMPSHIRE OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US7333268 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201

US7468842 BB	20081223	LSGT	+	granted / extensions (spc, cpc, pte)	
US7468842 BB	20080613	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NANOVENTIONS HOLDINGS, LLC, GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STEENBLIK, RICHARD A.; HURT, MARK J.; JORDAN, GREGORY R.; REEL/FRAME:021093/0946 EFFECTIVE DATE : 20080610
US7468842 BB	20081203	LSGT	PAT1	Patented Case	
US7468842 BB	20090112	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NANOVENTIONS HOLDINGS, LLC; REEL/FRAME:022092/0340 EFFECTIVE DATE : 20080925
US7468842 BB	20090112	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC,GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NANOVENTIONS HOLDINGS, LLC; REEL/FRAME:022092/0340 EFFECTIVE DATE : 20080925
US7468842 BB	20111024	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TORONTO DOMINION (TEXAS) LLC, AS ADMINISTRATIVE AG OLDPARTY : PATENT SECURITY AGREEMENT; ASSIGNOR:VISUAL PHYSICS, LLC; REEL/FRAME:027105/0690 EFFECTIVE DATE : 20110805
US7468842 BB	20120625	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7468842 BB	20140929	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HIGHBRIDGE PRINCIPAL STRATEGIES, LLC, AS COLLATERA OLDPARTY : GRANT OF A SECURITY INTEREST -- PATENTS; ASSIGNORS:CRANE & CO., INC.; VISUAL PHYSICS, LLC; CRANE SECURITY TECHNOLOGIES, INC.; REEL/FRAME:033846/0591 EFFECTIVE DATE : 20140929
US7468842 BB	20141002	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS AND PATENT APPLICATIONS; ASSIGNOR:TORONTO DOMINION (TEXAS) LLC; REEL/FRAME:033887/0114 EFFECTIVE DATE : 20140929
US7468842 BB	20160330	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US7468842 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, NA, AS ADMINISTRATIVE AGENT, OLDPARTY : PATENT SECURITY AGREEMENT; ASSIGNORS:CRANE & CO., INC.; CRANE SECURITY TECHNOLOGIES, INC.; VISUAL PHYSICS, LLC; REEL/FRAME:040791/0079 EFFECTIVE DATE : 20161201
US7468842 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014;

					ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US7468842 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CRANE SECURITY TECHNOLOGIES, INC., NEW HAMPSHIRE OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US7468842 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CRANE & CO., INC., MASSACHUSETTS OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US7738175 BB	20100615	LSGT	+	granted / extensions (spc, cpc, pte)	
US7738175 BB	20080613	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NANOVENTIONS HOLDINGS, LLC, GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STEENBLIK, RICHARD A.; HURT, MARK J.; JORDAN, GREGORY R.; REEL/FRAME:021093/0985 EFFECTIVE DATE : 20080612
US7738175 BB	20080613	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NANOVENTIONS HOLDINGS, LLC,GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STEENBLIK, RICHARD A.; HURT, MARK J.; JORDAN, GREGORY R.; REEL/FRAME:021093/0985 EFFECTIVE DATE : 20080612
US7738175 BB	20090112	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NANOVENTIONS HOLDINGS, LLC; REEL/FRAME:022092/0340 EFFECTIVE DATE : 20080925
US7738175 BB	20090112	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC,GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NANOVENTIONS HOLDINGS, LLC; REEL/FRAME:022092/0340 EFFECTIVE DATE : 20080925
US7738175 BB	20100526	LSGT	PAT1	Patented Case	
US7738175 BB	20111024	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TORONTO DOMINION (TEXAS) LLC, AS ADMINISTRATIVE AG OLDPARTY : PATENT SECURITY AGREEMENT; ASSIGNOR:VISUAL PHYSICS, LLC; REEL/FRAME:027105/0690 EFFECTIVE DATE : 20110805
US7738175 BB	20130926	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US7738175 BB	20140929	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HIGHBRIDGE PRINCIPAL STRATEGIES, LLC, AS COLLATERA

					OLDPARTY : GRANT OF A SECURITY INTEREST -- PATENTS; ASSIGNORS:CRANE & CO., INC.; VISUAL PHYSICS, LLC; CRANE SECURITY TECHNOLOGIES, INC.; REEL/FRAME:033846/0591 EFFECTIVE DATE : 20140929
US7738175 BB	20141002	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS AND PATENT APPLICATIONS; ASSIGNOR:TORONTO DOMINION (TEXAS) LLC; REEL/FRAME:033887/0114 EFFECTIVE DATE : 20140929
US7738175 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, NA, AS ADMINISTRATIVE AGENT, OLDPARTY : PATENT SECURITY AGREEMENT; ASSIGNORS:CRANE & CO., INC.; CRANE SECURITY TECHNOLOGIES, INC.; VISUAL PHYSICS, LLC; REEL/FRAME:040791/0079 EFFECTIVE DATE : 20161201
US7738175 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CRANE & CO., INC., MASSACHUSETTS OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US7738175 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CRANE SECURITY TECHNOLOGIES, INC., NEW HAMPSHIRE OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US7738175 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US8009360 BB	20110830	LSGT	+	granted / extensions (spc, cpc, pte)	
US8009360 BB	20080327	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NANOVENTIONS HOLDINGS, LLC, GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STEENBLIK, RICHARD A.; HURT, MARK J.; JORDAN, GREGORY R.; REEL/FRAME:020709/0164 EFFECTIVE DATE : 20080324
US8009360 BB	20080919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NANOVENTIONS, INC., GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STEENBLIK, RICHARD A.; HURT, MARK J.; JORDAN, GREGORY R.; REEL/FRAME:021555/0560 EFFECTIVE DATE : 20041217

US8009360 BB	20080919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NANOVENTIONS HOLDINGS, LLC, GEORGIA OLDPARTY : MERGER; ASSIGNOR:NANOVENTIONS, INC.; REEL/FRAME:021555/0577 EFFECTIVE DATE : 20070101
US8009360 BB	20090112	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NANOVENTIONS HOLDINGS, LLC; REEL/FRAME:022092/0340 EFFECTIVE DATE : 20080925
US8009360 BB	20090112	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC,GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NANOVENTIONS HOLDINGS, LLC; REEL/FRAME:022092/0340 EFFECTIVE DATE : 20080925
US8009360 BB	20110810	LSGT	PAT1	Patented Case	
US8009360 BB	20140929	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HIGHBRIDGE PRINCIPAL STRATEGIES, LLC, AS COLLATERA OLDPARTY : GRANT OF A SECURITY INTEREST -- PATENTS; ASSIGNORS:CRANE & CO., INC.; VISUAL PHYSICS, LLC; CRANE SECURITY TECHNOLOGIES, INC.; REEL/FRAME:033846/0591 EFFECTIVE DATE : 20140929
US8009360 BB	20141204	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8009360 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, NA, AS ADMINISTRATIVE AGENT, OLDPARTY : PATENT SECURITY AGREEMENT; ASSIGNORS:CRANE & CO., INC.; CRANE SECURITY TECHNOLOGIES, INC.; VISUAL PHYSICS, LLC; REEL/FRAME:040791/0079 EFFECTIVE DATE : 20161201
US8009360 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CRANE & CO., INC., MASSACHUSETTS OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US8009360 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CRANE SECURITY TECHNOLOGIES, INC., NEW HAMPSHIRE OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US8009360 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE

US8077393 BB	20111213	LSGT	+	granted / extensions (spc, cpc, pte)	
US8077393 BB	20080903	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NANOVENTIONS HOLDINGS, LLC, GEORGIA OLDPARTY : MERGER; ASSIGNOR:NANOVENTIONS, INC.; REEL/FRAME:021471/0447 EFFECTIVE DATE : 20070101
US8077393 BB	20080919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NANOVENTIONS, INC., GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STEENBLIK, RICHARD A.; HURT, MARK J.; JORDAN, GREGORY R.; REEL/FRAME:021555/0560 EFFECTIVE DATE : 20041217
US8077393 BB	20090401	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NANOVENTIONS HOLDINGS, LLC; REEL/FRAME:022486/0557 EFFECTIVE DATE : 20080925
US8077393 BB	20111122	LSGT	PAT1	Patented Case	
US8077393 BB	20140929	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HIGHBRIDGE PRINCIPAL STRATEGIES, LLC, AS COLLATERA OLDPARTY : GRANT OF A SECURITY INTEREST -- PATENTS; ASSIGNORS:CRANE & CO., INC.; VISUAL PHYSICS, LLC; CRANE SECURITY TECHNOLOGIES, INC.; REEL/FRAME:033846/0591 EFFECTIVE DATE : 20140929
US8077393 BB	20150402	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8077393 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, NA, AS ADMINISTRATIVE AGENT, OLDPARTY : PATENT SECURITY AGREEMENT; ASSIGNORS:CRANE & CO., INC.; CRANE SECURITY TECHNOLOGIES, INC.; VISUAL PHYSICS, LLC; REEL/FRAME:040791/0079 EFFECTIVE DATE : 20161201
US8077393 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CRANE SECURITY TECHNOLOGIES, INC., NEW HAMPSHIRE OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US8077393 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US8077393 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CRANE & CO., INC.,

					MASSACHUSETTS OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRA ME 033846/0591 ON SE PTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRA ME:040801/0330 EFFECTIVE DATE : 20161201
US8111462 BB	20120207	LSGT	+	granted / extensions (spc, cpc, pte)	
US8111462 BB	20080326	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NANOVENTIONS HOLDINGS, LLC, GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STEENBLIK, RICHARD A.; HURT, MARK J.; JORDAN, GREGORY R.; REEL/FRA ME:020705/0267 EFFECTIVE DATE : 20080324
US8111462 BB	20080919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NANOVENTIONS, INC., GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STEENBLIK, RICHARD A.; HURT, MARK J.; JORDAN, GREGORY R.; REEL/FRA ME:021555/0560 EFFECTIVE DATE : 20041217
US8111462 BB	20080919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NANOVENTIONS HOLDINGS, LLC, GEORGIA OLDPARTY : MERGER; ASSIGNOR:NANOVENTIONS, INC.; REEL/FRA ME:021555/0577 EFFECTIVE DATE : 20070101
US8111462 BB	20090112	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NANOVENTIONS HOLDINGS, LLC; REEL/FRA ME:022092/0340 EFFECTIVE DATE : 20080925
US8111462 BB	20090112	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC,GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NANOVENTIONS HOLDINGS, LLC; REEL/FRA ME:022092/0340 EFFECTIVE DATE : 20080925
US8111462 BB	20120118	LSGT	PAT1	Patented Case	
US8111462 BB	20140929	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HIGHBRIDGE PRINCIPAL STRATEGIES, LLC, AS COLLATERA OLDPARTY : GRANT OF A SECURITY INTEREST -- PATENTS; ASSIGNORS:CRANE & CO., INC.; VISUAL PHYSICS, LLC; CRANE SECURITY TECHNOLOGIES, INC.; REEL/FRA ME:033846/0591 EFFECTIVE DATE : 20140929
US8111462 BB	20150623	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8111462 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, NA, AS ADMINISTRATIVE AGENT, OLDPARTY : PATENT SECURITY AGREEMENT; ASSIGNORS:CRANE & CO., INC.; CRANE SECURITY TECHNOLOGIES, INC.; VISUAL PHYSICS, LLC; REEL/FRA ME:040791/0079 EFFECTIVE DATE : 20161201
US8111462 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CRANE & CO., INC.,

					MASSACHUSETTS OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US8111462 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US8111462 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CRANE SECURITY TECHNOLOGIES, INC., NEW HAMPSHIRE OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US8120855 BB	20120221	LSGT	+	granted / extensions (spc, cpc, pte)	
US8120855 BB	20080903	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NANOVENTIONS HOLDINGS, LLC, GEORGIA OLDPARTY : MERGER; ASSIGNOR:NANOVENTIONS, INC.; REEL/FRAME:021471/0447 EFFECTIVE DATE : 20070101
US8120855 BB	20080919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NANOVENTIONS, INC., GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STEENBLIK, RICHARD A.; HURT, MARK J.; JORDAN, GREGORY R.; REEL/FRAME:021555/0560 EFFECTIVE DATE : 20041217
US8120855 BB	20090112	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NANOVENTIONS HOLDINGS, LLC; REEL/FRAME:022092/0340 EFFECTIVE DATE : 20080925
US8120855 BB	20090112	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC,GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NANOVENTIONS HOLDINGS, LLC; REEL/FRAME:022092/0340 EFFECTIVE DATE : 20080925
US8120855 BB	20120201	LSGT	PAT1	Patented Case	
US8120855 BB	20140929	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HIGHBRIDGE PRINCIPAL STRATEGIES, LLC, AS COLLATERA OLDPARTY : GRANT OF A SECURITY INTEREST -- PATENTS; ASSIGNORS:CRANE & CO., INC.; VISUAL PHYSICS, LLC; CRANE SECURITY TECHNOLOGIES, INC.; REEL/FRAME:033846/0591 EFFECTIVE DATE : 20140929
US8120855 BB	20150623	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4

US8120855 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, NA, AS ADMINISTRATIVE AGENT, OLDPARTY : PATENT SECURITY AGREEMENT; ASSIGNORS:CRANE & CO., INC.; CRANE SECURITY TECHNOLOGIES, INC.; VISUAL PHYSICS, LLC; REEL/FRAME:040791/0079 EFFECTIVE DATE : 20161201
US8120855 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CRANE SECURITY TECHNOLOGIES, INC., NEW HAMPSHIRE OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US8120855 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CRANE & CO., INC., MASSACHUSETTS OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US8120855 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US8144399 BB	20120327	LSGT	+	granted / extensions (spc, cpc, pte)	
US8144399 BB	20090401	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NANOVENTIONS HOLDINGS, LLC, GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STEENBLIK, RICHARD A.; HURT, MARK J.; JORDAN, GREGORY R.; REEL/FRAME:022486/0550 EFFECTIVE DATE : 20080610
US8144399 BB	20090410	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NANOVENTIONS HOLDINGS, LLC; REEL/FRAME:022513/0415 EFFECTIVE DATE : 20080925
US8144399 BB	20111024	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TORONTO DOMINION (TEXAS) LLC, AS ADMINISTRATIVE AG OLDPARTY : PATENT SECURITY AGREEMENT; ASSIGNOR:VISUAL PHYSICS, LLC; REEL/FRAME:027105/0690 EFFECTIVE DATE : 20110805
US8144399 BB	20120307	LSGT	PAT1	Patented Case	
US8144399 BB	20140929	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HIGHBRIDGE PRINCIPAL STRATEGIES, LLC, AS COLLATERA OLDPARTY : GRANT OF A

					SECURITY INTEREST -- PATENTS; ASSIGNORS:CRANE & CO., INC.; VISUAL PHYSICS, LLC; CRANE SECURITY TECHNOLOGIES, INC.; REEL/FRAME:033846/0591 EFFECTIVE DATE : 20140929
US8144399 BB	20141002	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS AND PATENT APPLICATIONS; ASSIGNOR:TORONTO DOMINION (TEXAS) LLC; REEL/FRAME:033887/0114 EFFECTIVE DATE : 20140929
US8144399 BB	20150723	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8144399 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, NA, AS ADMINISTRATIVE AGENT, OLDPARTY : PATENT SECURITY AGREEMENT; ASSIGNORS:CRANE & CO., INC.; CRANE SECURITY TECHNOLOGIES, INC.; VISUAL PHYSICS, LLC; REEL/FRAME:040791/0079 EFFECTIVE DATE : 20161201
US8144399 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US8144399 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CRANE & CO., INC., MASSACHUSETTS OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US8144399 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CRANE SECURITY TECHNOLOGIES, INC., NEW HAMPSHIRE OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US8254030 BB	20120828	LSGT	+	granted / extensions (spc, cpc, pte)	
US8254030 BB	20080326	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NANOVENTIONS HOLDINGS, LLC, GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STEENBLIK, RICHARD A.; HURT, MARK J.; JORDAN, GREGORY R.; REEL/FRAME:020706/0557 EFFECTIVE DATE : 20080324
US8254030 BB	20080919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NANOVENTIONS, INC., GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STEENBLIK, RICHARD A.; HURT, MARK J.;

					JORDAN, GREGORY R.; REEL/FRAME:021555/0560 EFFECTIVE DATE : 20041217
US8254030 BB	20080919	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : NANOVENTIONS HOLDINGS, LLC, GEORGIA OLDPARTY : MERGER; ASSIGNOR:NANOVENTIONS, INC.; REEL/FRAME:021555/0577 EFFECTIVE DATE : 20070101
US8254030 BB	20090112	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NANOVENTIONS HOLDINGS, LLC; REEL/FRAME:022092/0340 EFFECTIVE DATE : 20080925
US8254030 BB	20090112	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC,GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:NANOVENTIONS HOLDINGS, LLC; REEL/FRAME:022092/0340 EFFECTIVE DATE : 20080925
US8254030 BB	20120808	LSGT	PAT1	Patented Case	
US8254030 BB	20140929	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HIGHBRIDGE PRINCIPAL STRATEGIES, LLC, AS COLLATERA OLDPARTY : GRANT OF A SECURITY INTEREST -- PATENTS; ASSIGNORS:CRANE & CO., INC.; VISUAL PHYSICS, LLC; CRANE SECURITY TECHNOLOGIES, INC.; REEL/FRAME:033846/0591 EFFECTIVE DATE : 20140929
US8254030 BB	20151215	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8254030 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, NA, AS ADMINISTRATIVE AGENT, OLDPARTY : PATENT SECURITY AGREEMENT; ASSIGNORS:CRANE & CO., INC.; CRANE SECURITY TECHNOLOGIES, INC.; VISUAL PHYSICS, LLC; REEL/FRAME:040791/0079 EFFECTIVE DATE : 20161201
US8254030 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CRANE & CO., INC., MASSACHUSETTS OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US8254030 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CRANE SECURITY TECHNOLOGIES, INC., NEW HAMPSHIRE OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US8254030 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME

033846/0591 ON SEPTEMBER
29, 2014;
ASSIGNOR:HIGHBRIDGE
PRINCIPAL STRATEGIES, LLC;
REEL/FRAME:040801/0330
EFFECTIVE DATE : 20161201

US8310760 BB	20121113	LSGT	+	granted / extensions (spc, cpc, pte)	
US8310760 BB	20110520	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STEENBLIK, RICHARD A.; HURT, MARK J.; JORDAN, GREGORY R.; REEL/FRAME:026320/0469 EFFECTIVE DATE : 20110325
US8310760 BB	20110520	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STEENBLIK, RICHARD A.; HURT, MARK J.; JORDAN, GREGORY R.; REEL/FRAME:026320/0614 EFFECTIVE DATE : 20110325
US8310760 BB	20121024	LSGT	PAT1	Patented Case	
US8310760 BB	20140929	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HIGHBRIDGE PRINCIPAL STRATEGIES, LLC, AS COLLATERA OLDPARTY : GRANT OF A SECURITY INTEREST -- PATENTS; ASSIGNORS:CRANE & CO., INC.; VISUAL PHYSICS, LLC; CRANE SECURITY TECHNOLOGIES, INC.; REEL/FRAME:033846/0591 EFFECTIVE DATE : 20140929
US8310760 BB	20160224	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8310760 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, NA, AS ADMINISTRATIVE AGENT, OLDPARTY : PATENT SECURITY AGREEMENT; ASSIGNORS:CRANE & CO., INC.; CRANE SECURITY TECHNOLOGIES, INC.; VISUAL PHYSICS, LLC; REEL/FRAME:040791/0079 EFFECTIVE DATE : 20161201
US8310760 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CRANE & CO., INC., MASSACHUSETTS OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US8310760 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CRANE SECURITY TECHNOLOGIES, INC., NEW HAMPSHIRE OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US8310760 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014;

ASSIGNOR:HIGHBRIDGE
PRINCIPAL STRATEGIES, LLC;
REEL/FRAME:040801/0330
EFFECTIVE DATE : 20161201

US8773763 BB	20140708	LSGT	+	granted / extensions (spc, cpc, pte)	
US8773763 BB	20111024	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TORONTO DOMINION (TEXAS) LLC, AS ADMINISTRATIVE AG OLDPARTY : PATENT SECURITY AGREEMENT; ASSIGNOR:VISUAL PHYSICS, LLC; REEL/FRAME:027105/0690 EFFECTIVE DATE : 20110805
US8773763 BB	20140618	LSGT	PAT1	Patented Case	
US8773763 BB	20140929	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HIGHBRIDGE PRINCIPAL STRATEGIES, LLC, AS COLLATERA OLDPARTY : GRANT OF A SECURITY INTEREST -- PATENTS; ASSIGNORS:CRANE & CO., INC.; VISUAL PHYSICS, LLC; CRANE SECURITY TECHNOLOGIES, INC.; REEL/FRAME:033846/0591 EFFECTIVE DATE : 20140929
US8773763 BB	20141002	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS AND PATENT APPLICATIONS; ASSIGNOR:TORONTO DOMINION (TEXAS) LLC; REEL/FRAME:033887/0114 EFFECTIVE DATE : 20140929
US8773763 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, NA, AS ADMINISTRATIVE AGENT, OLDPARTY : PATENT SECURITY AGREEMENT; ASSIGNORS:CRANE & CO., INC.; CRANE SECURITY TECHNOLOGIES, INC.; VISUAL PHYSICS, LLC; REEL/FRAME:040791/0079 EFFECTIVE DATE : 20161201
US8773763 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CRANE & CO., INC., MASSACHUSETTS OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US8773763 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US8773763 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CRANE SECURITY TECHNOLOGIES, INC., NEW HAMPSHIRE OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330

US8867134 BB	20141021	LSGT	+	granted / extensions (spc, cpc, pte)	
US8867134 BB	20100907	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STEENBLIK, RICHARD A.; HURT, MARK J.; CAPE, SAMUEL M.; AND OTHERS; REEL/FRAME:024949/0510 EFFECTIVE DATE : 20100810
US8867134 BB	20111024	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : TORONTO DOMINION (TEXAS) LLC, AS ADMINISTRATIVE AG OLDPARTY : PATENT SECURITY AGREEMENT; ASSIGNOR:VISUAL PHYSICS, LLC; REEL/FRAME:027105/0690 EFFECTIVE DATE : 20110805
US8867134 BB	20140929	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : HIGHBRIDGE PRINCIPAL STRATEGIES, LLC, AS COLLATERA OLDPARTY : GRANT OF A SECURITY INTEREST -- PATENTS; ASSIGNORS:CRANE & CO., INC.; VISUAL PHYSICS, LLC; CRANE SECURITY TECHNOLOGIES, INC.; REEL/FRAME:033846/0591 EFFECTIVE DATE : 20140929
US8867134 BB	20141001	LSGT	PAT1	Patented Case	
US8867134 BB	20141002	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : VISUAL PHYSICS, LLC, GEORGIA OLDPARTY : RELEASE OF SECURITY INTEREST IN PATENTS AND PATENT APPLICATIONS; ASSIGNOR:TORONTO DOMINION (TEXAS) LLC; REEL/FRAME:033887/0114 EFFECTIVE DATE : 20140929
US8867134 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : JPMORGAN CHASE BANK, NA, AS ADMINISTRATIVE AGENT, OLDPARTY : PATENT SECURITY AGREEMENT; ASSIGNORS:CRANE & CO., INC.; CRANE SECURITY TECHNOLOGIES, INC.; VISUAL PHYSICS, LLC; REEL/FRAME:040791/0079 EFFECTIVE DATE : 20161201
US8867134 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CRANE SECURITY TECHNOLOGIES, INC., NEW HAMPSHIRE OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
US8867134 BB	20161201	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CRANE & CO., INC., MASSACHUSETTS OLDPARTY : TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS RECORDED AT REEL/FRAME 033846/0591 ON SEPTEMBER 29, 2014; ASSIGNOR:HIGHBRIDGE PRINCIPAL STRATEGIES, LLC; REEL/FRAME:040801/0330 EFFECTIVE DATE : 20161201
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LLC, GEORGIA
 OLDPARTY : TERMINATION
 AND RELEASE OF SECURITY
 INTEREST IN PATENTS
 RECORDED AT REEL/FRA
 033846/0591 ON SEPTEMBER
 29, 2014;
 ASSIGNOR:HIGHBRIDGE
 PRINCIPAL STRATEGIES, LLC;
 REEL/FRA:040801/0330
 EFFECTIVE DATE : 20161201

WO05052650 A2	20050609	LSPB	+	published / reissued	
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WO08008635 A3	20090115	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007272705 COUNTRY OF REF DOCUMENT : AU
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WO11019912 A1	20120309	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20127006219 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A
WO11019912 A1	20120312	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2012108183 COUNTRY OF REF DOCUMENT : RU

					KIND CODE OF REF DOCUMENT : A
WO11019912 A1	20120312	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012108183 COUNTRY OF REF DOCUMENT : RU
WO11019912 A1	20160816	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 112012003071 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 EFFECTIVE DATE : 20120210
WO11163298 A1	20111229	LSPB	+	published / reissued	
WO11163298 A1	20121221	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2803857 COUNTRY OF REF DOCUMENT : CA
WO11163298 A1	20121224	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO11163298 A1	20121225	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2013516710 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A
WO11163298 A1	20130117	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2011271030 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20110622 KIND CODE OF REF DOCUMENT : A
WO11163298 A1	20130121	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20137001573 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A
WO11163298 A1	20130122	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2013101539 COUNTRY OF REF DOCUMENT : RU KIND CODE OF REF DOCUMENT : A
WO11163298 A1	20161116	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 112012033221 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 EFFECTIVE DATE : 20121226
ZA200710725 A	20081231	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: MENTHOL CIGARETTE

Abstract: Source: US2008017206A Cigarettes are provided which contain a filtering system and flavorants encapsulated with polyvinyl acetate, wherein deactivation of a sorbent by the flavorant is reduced through the encapsulation of the flavorant within the polyvinyl acetate. A preferred flavorant is menthol. The encapsulated flavorants are prepared by mixing at least one flavorant with polyvinyl acetate and a solvent, such as ethanol, and forming the encapsulated flavorants. Methods of making cigarettes and smoking the **articles** are also provided.

Classifications:

International (IPC 8-9): A23L1/22 A23L27/00 A24B15/28 A24B15/30 A24C5/00 A24C5/60 A24D1/00 A24D1/02 A24D1/04 A24D3/02 A24D3/06 A24D3/14 A24D3/16 A24F47/00 (Advanced/Invention);

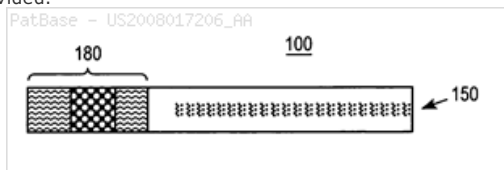
A24D1/00 A24D1/02 (Advanced/Non-invention);
A24B15/00 A24C5/00 A24D1/00 (Core/Invention);
A24D (Subclass/Invention)

CPC: A24D3/048 A24D3/061 A24B15/282 A24B15/283 A24C5/608

A24D1/02 A24D1/025 A24D3/14 A24D3/16 A24F47/008 A23L27/74 A23L27/77 A24D3/0216 A24D1/002 A24B15/30

European: A23L1/22B4 A23L1/22B8 A24B15/28B2 A24B15/28B4 A24C5/60T A24D1/00A A24D1/02 A24D1/02B A24D3/04E A24D3/06B A24D3/14 A24D3/16

US: 1/1 131/191 131/275 131/276 131/280 131/280S 131/329 131/329S 131/332 131/332S 131/335 131/337 131/352

**Family:**

Publication number	Publication date	Application number	Application date
AU2006296290 AA	20070405	AU20060296290	20060929
BRPI0616634 A2	20110628	BR2006PI16634	20060929
CN101296627 A	20081029	CN200680040183	20060929
CO6160280 A2	20100520	CO20080043884	20080429
EA013933 B1	20100830	EA20080000998	20060929
EA200800998 A1	20080829	EA20080000998	20060929
EP1931224 A2	20080618	EP20060831841	20060929
JP2009509524 T2	20090312	JP20080532905T	20060929
KR20080059168 A	20080626	KR20087007343	20080326
US2008017206 AA	20080124	US20060526813	20060926
US2012167905 AA	20120705	US20120422654	20120316
US2015282521 AA	20151008	US20150742390	20150617
US2017055569 AA	20170302	US20160349250	20161111
US8157918 BB	20120417	US20060526813	20060926
US9078470 BB	20150714	US20120422654	20120316
US9521865 BB	20161220	US20150742390	20150617
WO07036814 A2	20070405	WO2006IB03857	20060929
WO07036814 A3	20071004	WO2006IB03857	20060929
ZA200802486 A	20090325	ZA20080002486	20080318

Priority:

US20050722033P 20050930 US20060526813 20060926 US20120422654 20120316
WO2006IB03857 20060929 US20150742390 20150617 US20160349250 20161111

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Assignee(s): (std): BECKER ULRIKE ; FOURNIER JAY A ; HOWELL TONY ; KARLES GEORGIOS D ; PHILIP MORRIS INT INC ; PHILIP MORRIS PROD ; PHILIP MORRIS USA INC ; PHILLIP MORRIS PRODUCTS S A ; XUE LIXIN

Assignee(s): PHILLIP MORRIS PRODUCTS SA ; PHILLIP MORRIS USA INC ; PHILIP MORRIS PRODUCTS SA ; PHILIP MORRIS PRODUCTS S A

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Inventor(s): TONY M HOWELL ; JAY A FOURNIER ; KARLES GEORGIOS ; GEORGIOS D KARLES ; FOURNIER JAY

Agent(s): CALLINANS; FISHER ADAMS KELLY CALLINANS; ERNESTO CAVELIER; MARLOW NICHOLAS SIMON; BUCHANAN INGERSOLL AND ROONEY PC

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 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)

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Patent	Date recorded	Event group	Code	Event	Details
AU2006296290 AA	20070405	LSPB	+	published / reissued	
AU2006296290 AA	20120426	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
BRPI0616634 A2	20110628	LSPB	+	published / reissued	
BRPI0616634 A2	20121002	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	DESCRIPTION : REFERENTE 6A. ANUIDADE.
BRPI0616634 A2	20130730	LSLE	-B08K	LAPSE AS NO	DESCRIPTION : REFERENTE AO

				EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	DESPACHO 8.6 PUBLICADO NA RPI 2178 DE 02/10/2012.
CN101296627 A	20081029	LSPB	+	published / reissued	
CN101296627 A	20081029	LSPB	+C06	PUBLICATION	
CN101296627 A	20111221	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
CO6160280 A2	20100520	LSPB	+	published / reissued	
EA013933 B1	20100830	LSGT	+	granted / extensions (spc, cpc, pte)	
EA013933 B1	20110630	LSLE	-MM4A	LAPSE OF A EURASIAN PATENT DUE TO NON-PAYMENT OF RENEWAL FEES WITHIN THE TIME LIMIT IN THE FOLLOWING DESIGNATED STATE(S)	DESIGNATED STATE(S) : AM AZ BY KG MD TJ TM
EA013933 B1	20120629	LSLE	-MM4A	LAPSE OF A EURASIAN PATENT DUE TO NON-PAYMENT OF RENEWAL FEES WITHIN THE TIME LIMIT IN THE FOLLOWING DESIGNATED STATE(S)	DESIGNATED STATE(S) : KZ RU
EA200800998 A1	20080829	LSPB	+	published / reissued	
EP1931224 A2	20080618	LSPB	+	published / reissued	
EP1931224 A2	20080618	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20080320
EP1931224 A2	20100901	LSSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20100730
EP1931224 A2	20110622	LSDW	-18D	DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20101210
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JP2009509524 T2	20090917	LSSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20090916
JP2009509524 T2	20120207	LSSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20120206
JP2009509524 T2	20120207	LSSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20120206
JP2009509524 T2	20120706	LSRV	-A02	DECISION OF REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20120705
KR20080059168 A	20080626	LSPB	+	published / reissued	
KR20080059168 A	20111030	LSDW	-WITN	WITHDRAWAL DUE TO NO REQUEST FOR EXAMINATION	
US2008017206 AA	20080124	LSPB	+	published / reissued	
US2008017206 AA	20070928	LSAS	AS	ASSIGNMENT	OWNER NAME : PHILLIP MORRIS USA INC., VIRGINIA DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BECKER, ULRIKE; HOWELL, TONY; XUE, LIXIN; AND OTHERS; REEL/FRAME:019902/0908; SIGNING DATES FROM 20070328 TO 20070925
US2012167905 AA	20120705	LSPB	+	published / reissued	

US2015282521 AA	20151008	LSPB	+	published / reissued	
US2017055569 AA	20170302	LSPB	+	published / reissued	
US8157918 BB	20120417	LSGT	+	granted / extensions (spc, cpc, pte)	
US8157918 BB	20070928	LSAS	AS	ASSIGNMENT	OWNER NAME : PHILLIP MORRIS USA INC., VIRGINIA DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BECKER, ULRIKE; HOWELL, TONY; XUE, LIXIN; AND OTHERS; REEL/FRAME:019902/0908; SIGNING DATES FROM 20070328 TO 20070925
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US8157918 BB	20120328	LSGT	PAT1	Patented Case	
US8157918 BB	20160415	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US9078470 BB	20150714	LSGT	+	granted / extensions (spc, cpc, pte)	
US9521865 BB	20161220	LSGT	+	granted / extensions (spc, cpc, pte)	
US9521865 BB	20161130	LSGT	PAT1	Patented Case	
WO07036814 A2	20070405	LSPB	+	published / reissued	
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WO07036814 A3	20080320	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 566832 COUNTRY OF REF DOCUMENT : NZ
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				NATIONAL PHASE IN:	PI0616634 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 EFFECTIVE DATE : 20080331
ZA200802486 A	20090325	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: BIAXIALLY STRETCHABLE OUTER COVER FOR AN **ABSORBENT ARTICLE**

Abstract: Source: US2007287348A An outer cover for use with an **absorbent article** having a layer of nonwoven fibrous material and optionally including a polymeric layer laminated or printed onto the layer of nonwoven fibrous material. The outer cover includes at least one plastic component and at least one elastic component in the nonwoven fibrous material and/or optional polymeric layer. The outer cover can have different structural combinations of spunbond fibers, meltblown fibers, and/or nanofibers. The combination of plastic and elastic components results in an outer cover that has favorable mechanical, physical, and aesthetic properties. The outer cover can be rendered either uniaxially or biaxially stretchable via a mechanical activation process.

Classifications:

International (IPC 8-9): A61F13/15 A61F13/20 A61F13/49 A61F13/496 A61F13/514 A61F13/56 A61F13/64 B21D53/84 B21K25/00 B23P11/00 B32B27/12 B32B5/02 B32B5/26 D04H1/00 D04H1/42 D04H1/4374 D04H13/00 D04H3/00 D04H3/16 D04H5/00 F16B17/00 F16D1/072 F16H53/02 (Advanced/Invention); A61F13/15 A61F13/56 B21D53/00 B21K25/00 B23P11/00 B32B27/12 B32B5/22 D04H1/00 D04H1/42 D04H13/00 D04H3/00 D04H3/16 D04H5/00 F16B17/00 F16D1/06 F16H53/00 (Core/Invention)

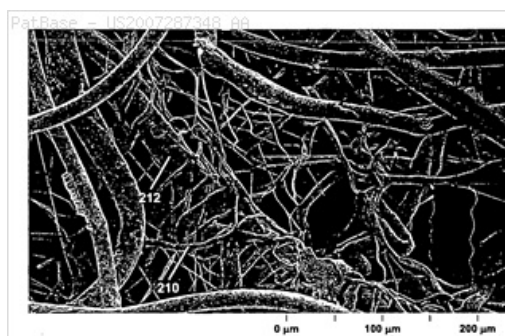
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Priority:

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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 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 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
AR063401 AA	20090128	LSPB	+	published / reissued	
AR063401 AA	20101124	LSWD	-FB	SUSPENSION OF GRANTING PROCEDURE	
AR063402 AA	20090128	LSPB	+	published / reissued	
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AR063403 AA	20090128	LSPB	+	published / reissued	
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AR063404 AA	20090128	LSPB	+	published / reissued	
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AR064586 AA	20090415	LSPB	+	published / reissued	
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CA2654619 AA	20160718	LSLE	-MKLA	LAPSED	EFFECTIVE DATE : 20160606
CA2654619 C	20120807	LSGT	+	granted / extensions (spc, cpc, pte)	
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CN101460123 A	20090617	LSPB	+C06	PUBLICATION	

CN101460123 A	20160127	LSRV	-C12	REJECTION OF A PATENT APPLICATION AFTER ITS PUBLICATION	
CN101460126 A	20090617	LSPB	+	published / reissued	
CN101460126 A	20090617	LSPB	+C06	PUBLICATION	
CN101460126 A	20130213	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
CN101460280 A	20090617	LSPB	+	published / reissued	
CN101460280 A	20090617	LSPB	+C06	PUBLICATION	
CN101460280 A	20120111	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN101460280 A	20140730	LSLE	-C17	CESSATION OF PATENT RIGHT	
CN101460280 B	20120111	LSGT	+	granted / extensions (spc, cpc, pte)	
CN101466335 A	20090624	LSPB	+	published / reissued	
CN101466335 A	20090624	LSPB	+C06	PUBLICATION	
CN101466335 A	20130612	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
EP2023876 A2	20090218	LSPB	+	published / reissued	
EP2023876 A2	20090218	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20081209
EP2023876 A2	20160713	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20160614
EP2023876 A2	20170329	LSDW	-18D	DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20161025
EP2026727 A1	20090225	LSPB	+	published / reissued	
EP2026727 A1	20090225	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20081110
EP2026727 A1	20100106	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20091204
EP2026727 A1	20100106	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20091204
EP2026727 A1	20160601	LSDW	-18D	DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20160105
EP2026729 A2	20090225	LSPB	+	published / reissued	
EP2026729 A2	20090225	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20081111
EP2026729 A2	20090325	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : MAGEE, LUKE
EP2026729 A2	20090325	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : LANGDON, FRED
EP2026729 A2	20090325	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : LODGE, RICHARD, WORTHINGTON
EP2026729 A2	20090325	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : MACURA, ANNA
EP2026729 A2	20090325	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : ROE, DONALD, CARROLL
EP2026729 A2	20090325	LSRE	RIN1	INVENTOR	INVENTOR NAME : EHNSPERGER,

				(CORRECTION)	BRUNO, JOHANNES
EP2026729 A2	20090325	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : DESAI, FRED, NAVAL
EP2026729 A2	20090624	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20090520
EP2026729 A2	20130626	LSDW	-18D	DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20130103
EP2026730 A2	20090225	LSPB	+	published / reissued	
EP2026730 A2	20090225	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20081111
EP2026730 A2	20090325	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : SAURER, ANDREW JAMES
EP2026730 A2	20090513	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : MOONEY, JOAN, HELEN
EP2026730 A2	20090513	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : EHRSNERGER, BRUNO, JOHANNES
EP2026730 A2	20090513	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : AUTRAN, JEAN- PHILIPPE, MARIE
EP2026730 A2	20090513	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : SAUER, ANDREW JAMES
EP2026730 A2	20090513	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : ROE, DONALD, CARROLL
EP2026730 A2	20090513	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : DESAI, FRED, NAVAL
EP2026730 A2	20090513	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : YOUNG, TERRILL, ALAN
EP2026730 A2	20090624	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20090520
EP2026730 A2	20160824	LSDW	-18D	DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20160323
EP2026731 A2	20090225	LSPB	+	published / reissued	
EP2026731 A2	20090225	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20081111
EP2026731 A2	20090408	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : ROE, DONALD, CARROLL
EP2026731 A2	20090408	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : MAGEE, LUKE
EP2026731 A2	20090408	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : EHRSNERGER, BRUNO, JOHANNES
EP2026731 A2	20090408	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : LODGE, RICHARD, WORTHINGTON
EP2026731 A2	20090408	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : DESAI, FRED, NAVAL
EP2026731 A2	20090408	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : LANGDON, FRED
EP2026731 A2	20090408	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : MACURA, ANNA
EP2026731 A2	20090624	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20090520
EP2026731 A2	20130619	LSDW	-18D	DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20130103
EP2026732 A2	20090225	LSPB	+	published / reissued	
EP2026732 A2	20090225	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20081111
EP2026732 A2	20090422	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : DESAI, FRED, NAVAL

EP2026732 A2	20090422	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : EHRNSPERGER, BRUNO, JOHANNES
EP2026732 A2	20090422	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : AUTRAN, JEAN- PHILIPPE, MARIE
EP2026732 A2	20090422	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : ROE, DONALD, CARROLL
EP2026732 A2	20090422	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : MOONEY, JOAN, HELEN
EP2026732 A2	20090422	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : YOUNG, TERRILL, ALAN
EP2026732 A2	20090624	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20090520
EP2026732 A2	20160907	LSDW	-18D	DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20160406
EP2026733 A2	20090225	LSPB	+	published / reissued	
EP2026733 A2	20090225	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20081111
EP2026733 A2	20090325	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : LANGDON, FRED
EP2026733 A2	20090325	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : DESAI, FRED, NAVAL
EP2026733 A2	20090325	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : MACURA, ANNA
EP2026733 A2	20090325	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : MAGEE, LUKE
EP2026733 A2	20090325	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : EHRNSPERGER, BRUNO, JOHANNES
EP2026733 A2	20090325	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : ROE, DONALD, CARROLL
EP2026733 A2	20090325	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : LODGE, RICHARD, WORTHINGTON
EP2026733 A2	20090624	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20090520
EP2026733 A2	20130619	LSDW	-18D	DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20130103
EP2026734 A1	20090225	LSPB	+	published / reissued	
EP2026734 A1	20090225	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20081111
EP2026734 A1	20090415	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : MAGEE, LUKE
EP2026734 A1	20090415	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : MACURA, ANNA
EP2026734 A1	20090415	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : ROE, DONALD, CARROLL
EP2026734 A1	20090415	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : EHRNSPERGER, BRUNO, JOHANNES
EP2026734 A1	20090415	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : LODGE, RICHARD, WORTHINGTON
EP2026734 A1	20090415	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : LANGDON, FRED
EP2026734 A1	20090415	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : DESAI, FRED, NAVAL
EP2026734 A1	20090624	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20090520
EP2026734 A1	20160907	LSDW	-18D	DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20160405
EP2026735 A1	20090225	LSPB	+	published / reissued	

EP2026735 A1	20090225	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20081111
EP2026735 A1	20090408	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : MAGEE, LUKE
EP2026735 A1	20090408	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : LODGE, RICHARD, WORTHINGTON
EP2026735 A1	20090408	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : DESAI, FRED, NAVAL
EP2026735 A1	20090408	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : ROE, DONALD, CARROLL
EP2026735 A1	20090408	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : LANGDON, FRED
EP2026735 A1	20090408	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : EHRNSPERGER, BRUNO, JOHANNES
EP2026735 A1	20090408	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : MACURA, ANNA
EP2026735 A1	20090902	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20090803
EP2026735 A1	20130619	LSDW	-18D	DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20130103
EP2026930 A2	20090225	LSPB	+	published / reissued	
EP2026930 A2	20090225	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20081111
EP2026930 A2	20090325	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : DESAI, FRED, NAVAL
EP2026930 A2	20090325	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : AUTRAN, JEAN-PHILIPPE, MARIE
EP2026930 A2	20090325	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : EHRNSPERGER, BRUNO, JOHANNES
EP2026930 A2	20090325	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : ROE, DONALD, CARROLL
EP2026930 A2	20090325	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : SAUER, ANDREW, JAMES
EP2026930 A2	20090325	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : MOONEY, JOAN, HELEN
EP2026930 A2	20090325	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : YOUNG, TERRILL, ALAN
EP2026930 A2	20090624	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20090520
EP2026930 A2	20130619	LSDW	-18D	DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20130103
JP2009539423 T2	20091119	LSPB	+	published / reissued	
JP2009539423 T2	20101227	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20101224
JP2009539423 T2	20110625	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110624
JP2009539423 T2	20120105	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20120104
JP2009539423 T2	20120405	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20120404
JP2009539423 T2	20121029	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2009539423 T2	20121105	LSGT	+A01	WRITTEN	DESCRIPTION : JAPANESE

					DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20121102
JP2009539423 T2	20121207	LSGT	+R150		CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: R150
JP2009539423 T2	20121210	LSFE	+FPAY		RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20151207 YEAR OF FEE PAYMENT : 3
JP2009539460 T2	20091119	LSPB	+		published / reissued	
JP2009539461 T2	20091119	LSPB	+		published / reissued	
JP2009539461 T2	20110221	LSSES	-A131		NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20110218
JP2009539461 T2	20110819	LSRE	A521		WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110818
JP2009539461 T2	20120302	LSGT	+TRDD		DECISION OF GRANT OR REJECTION WRITTEN	
JP2009539461 T2	20120307	LSGT	+A01		WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20120306
JP2009539461 T2	20120308	LSGT	+A01		WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A01
JP2009539461 T2	20120412	LSFE	+A61		FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20120404
JP2009539461 T2	20120413	LSFE	+FPAY		RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20150413 YEAR OF FEE PAYMENT : 3
JP2009539461 T2	20120413	LSGT	+R150		CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: R150
JP2009539480 T2	20091119	LSPB	+		published / reissued	
JP2009539480 T2	20110309	LSSES	-A131		NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20110308
JP2009539480 T2	20110822	LSRV	-A02		DECISION OF REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20110819
JP2009539480 T2	20110822	LSRV	-A02		DECISION OF REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20110819
JP2009539481 T2	20091119	LSPB	+		published / reissued	
JP2009539481 T2	20110221	LSSES	-A131		NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20110218
JP2009539481 T2	20110221	LSSES	-A131		NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20110218
JP2009539481 T2	20111102	LSRV	-A02		DECISION OF	DESCRIPTION : JAPANESE

				REFUSAL	INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20111101
JP2009539481 T2	20111102	LSRV	-A02	DECISION OF REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20111101
JP2009539482 T2	20091119	LSPB	+	published / reissued	
JP2009539482 T2	20110905	LSRV	-A02	DECISION OF REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20110902
JP2009539482 T2	20110905	LSRV	-A02	DECISION OF REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20110902
JP2009539483 T2	20091119	LSPB	+	published / reissued	
JP2009539483 T2	20110322	LSER	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20110318
JP2009539483 T2	20110715	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110714
JP2009539483 T2	20120206	LSER	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20120203
JP2009539483 T2	20120403	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20120402
JP2009539483 T2	20120419	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2009539483 T2	20120425	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20120424
JP2009539483 T2	20120426	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A01
JP2009539483 T2	20120531	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20120523
JP2009539483 T2	20120601	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20150601 YEAR OF FEE PAYMENT : 3
JP2009539483 T2	20120601	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: R150
JP4970536 B2	20120711	LSGT	+	granted / extensions (spc, cpc, pte)	
JP4970536 B2	20110221	LSER	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20110218
JP4970536 B2	20110819	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110818
JP4970536 B2	20120302	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP4970536 B2	20120307	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20120306

					GRANT A REGISTRATION (UTILITY MODEL)	
JP4970536 B2	20120308	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A01	
JP4970536 B2	20120412	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20120404	
JP4970536 B2	20120413	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20150413 YEAR OF FEE PAYMENT : 3	
JP4970536 B2	20120413	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: R150	
JP4987972 B2	20120801	LSGT	+	granted / extensions (spc, cpc, pte)		
JP4987972 B2	20110309	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20110308	
JP4987972 B2	20110909	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110908	
JP4987972 B2	20120322	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN		
JP4987972 B2	20120328	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20120327	
JP4987972 B2	20120329	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	TEXT : JAPANESE INTERMEDIATE CODE: A01	
JP4987972 B2	20120510	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	TEXT : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20120425	
JP4987972 B2	20120511	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	TEXT : JAPANESE INTERMEDIATE CODE: R150	
JP4987972 B2	20120514	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 3	
JP4987972 B2	20150512	LSFE	+R250	RECEIPT OF ANNUAL FEES	TEXT : JAPANESE INTERMEDIATE CODE: R250	
JP4987972 B2	20160511	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES		
JP5005763 B2	20120822	LSGT	+	granted / extensions (spc, cpc, pte)		
JP5005763 B2	20110322	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20110318	
JP5005763 B2	20110715	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110714	

JP5005763 B2	20120206	LSSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20120203
JP5005763 B2	20120403	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20120402
JP5005763 B2	20120419	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP5005763 B2	20120425	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20120424
JP5005763 B2	20120426	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A01
JP5005763 B2	20120531	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20120523
JP5005763 B2	20120601	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20150601 YEAR OF FEE PAYMENT : 3
JP5005763 B2	20120601	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: R150
JP5148601 B2	20130220	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5148601 B2	20101227	LSSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20101224
JP5148601 B2	20110625	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20110624
JP5148601 B2	20120105	LSSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20120104
JP5148601 B2	20120405	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20120404
JP5148601 B2	20121029	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP5148601 B2	20121105	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20121102
JP5148601 B2	20121206	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20121128
JP5148601 B2	20121207	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: R150
JP5148601 B2	20121210	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20151207 YEAR OF FEE PAYMENT : 3

JP5148601 B2	20151207	LSLE	-LAPS	CANCELLATION BECAUSE OF NO PAYMENT OF ANNUAL FEES	
MX2008015627 A1	20081217	LSPB	+	published / reissued	
MX2008015628 A1	20081217	LSPB	+	published / reissued	
MX2008015629 A1	20081217	LSPB	+	published / reissued	
MX2008015630 A1	20081217	LSPB	+	published / reissued	
MX2008015631 A1	20081217	LSPB	+	published / reissued	
MX2008015634 A1	20081217	LSPB	+	published / reissued	
MX2008015635 A1	20081217	LSPB	+	published / reissued	
MX2008015635 A1	20140307	LSGT	+FG	GRANT OR REGISTRATION	
US2007287348 AA	20071213	LSPB	+	published / reissued	
US2007287348 AA	20061115	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:AUTRAN, JEAN-PHILIPPE MARIE; ROE, DONALD CARROLL; YOUNG, TERRILL ALAN; AND OTHERS; REEL/FRAME:018610/0572 EFFECTIVE DATE : 20061115
US2007287982 AA	20071213	LSPB	+	published / reissued	
US2007287982 AA	20070212	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; ROE, DONALDCARROLL; AND OTHERS; REEL/FRAME:018892/0004; SIGNING DATES FROM 20070209 TO 20070212
US2007287983 AA	20071213	LSPB	+	published / reissued	
US2007287983 AA	20070215	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; ROE, DONALDCARROLL; AND OTHERS; REEL/FRAME:018909/0961; SIGNING DATES FROM 20070209 TO 20070212
US2007287983 AA	20120606	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2008004582 AA	20080103	LSPB	+	published / reissued	
US2008004582 AA	20070912	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; ROE, DONALDCARROLL; AND OTHERS; REEL/FRAME:019820/0285; SIGNING DATES FROM 20070817 TO 20070823
US2008004582 AA	20070912	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; ROE, DONALDCARROLL; AND OTHERS; SIGNING DATES FROM 20070817 TO 20070823; REEL/FRAME:019820/0285
US2008004582 AA	20120606	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	

US2008004583 AA	20080103	LSPB	+	published / reissued	
US2008004583 AA	20070912	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:DESAI, FRED NAVAL; LODGE, RICHARD WORTHINGTON; ROE, DONALDCARROLL; AND OTHERS; REEL/FRAME:019820/0780; SIGNING DATES FROM 20070817 TO 20070823
US2008004583 AA	20070912	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:DESAI, FRED NAVAL; LODGE, RICHARD WORTHINGTON; ROE, DONALDCARROLL; AND OTHERS; SIGNING DATES FROM 20070817 TO 20070823; REEL/FRAME:019820/0780
US2008004583 AA	20120525	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2008004584 AA	20080103	LSPB	+	published / reissued	
US2008004584 AA	20070912	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LANGDON, FREDERICK MICHAEL; LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; AND OTHERS; REEL/FRAME:019820/0277; SIGNING DATES FROM 20070817 TO 20070823
US2008004584 AA	20070912	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LANGDON, FREDERICK MICHAEL; LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; AND OTHERS; SIGNING DATES FROM 20070817 TO 20070823; REEL/FRAME:019820/0277
US2008004584 AA	20151202	LSWD	-ABD1	Abandoned -- After Examiner's Answer or Board of Appeals Decision	
US2008004586 AA	20080103	LSPB	+	published / reissued	
US2008004586 AA	20070912	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; ROE, DONALDCARROLL; AND OTHERS; REEL/FRAME:019820/0762; SIGNING DATES FROM 20070817 TO 20070823
US2008004586 AA	20070912	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; ROE, DONALDCARROLL; AND OTHERS; SIGNING DATES FROM 20070817 TO 20070823; REEL/FRAME:019820/0762
US2008004586 AA	20120821	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2008004587 AA	20080103	LSPB	+	published / reissued	
US2008004587 AA	20070912	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST;

					ASSIGNORS: LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; ROE, DONALDCARROLL; AND OTHERS; REEL/FRAME: 019820/0256; SIGNING DATES FROM 20070817 TO 20070823
US2008004587 AA	20070912	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; ROE, DONALDCARROLL; AND OTHERS; SIGNING DATES FROM 20070817 TO 20070823; REEL/FRAME: 019820/0256
US2008004587 AA	20120525	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2008004589 AA	20080103	LSPB	+	published / reissued	
US2008004589 AA	20070913	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: ROE, DONALD CARROLL; DESAI, FRED NAVAL; LODGE, RICHARD WORTHINGTON; AND OTHERS; REEL/FRAME: 019820/0567; SIGNING DATES FROM 20070817 TO 20070823
US2008004589 AA	20070913	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: ROE, DONALD CARROLL; DESAI, FRED NAVAL; LODGE, RICHARD WORTHINGTON; AND OTHERS; SIGNING DATES FROM 20070817 TO 20070823; REEL/FRAME: 019820/0567
US2008004589 AA	20120821	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2008004590 AA	20080103	LSPB	+	published / reissued	
US2008004590 AA	20070912	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; ROE, DONALDCARROLL; AND OTHERS; REEL/FRAME: 019820/0269; SIGNING DATES FROM 20070817 TO 20070823
US2008004590 AA	20070912	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; ROE, DONALDCARROLL; AND OTHERS; SIGNING DATES FROM 20070817 TO 20070823; REEL/FRAME: 019820/0269
US2008004590 AA	20121005	LSAS	AS	ASSIGNMENT	OWNER NAME : THE PROCTER AND GAMBLE COMPANY, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; ROE, DONALDCARROLL; AND OTHERS; SIGNING DATES FROM 20120902 TO 20121001; REEL/FRAME: 029081/0027
US2008004591 AA	20080103	LSPB	+	published / reissued	
US2008004591 AA	20070913	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: DESAI, FRED NAVAL; LODGE, RICHARD WORTHINGTON; ROE, DONALDCARROLL; AND OTHERS; REEL/FRAME: 019820/0870; SIGNING DATES FROM 20070817 TO

20070823					
US2008004591 AA	20070913	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:DESAI, FRED NAVAL; LODGE, RICHARD WORTHINGTON; ROE, DONALDCARROLL; AND OTHERS; SIGNING DATES FROM 20070817 TO 20070823; REEL/FRAME:019820/0870
US2008004591 AA	20120423	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2008004592 AA	20080103	LSPB	+	published / reissued	
US2008004592 AA	20070912	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; ROE, DONALDCARROLL; AND OTHERS; REEL/FRAME:019820/0290; SIGNING DATES FROM 20070817 TO 20070823
US2008004592 AA	20070912	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; ROE, DONALDCARROLL; AND OTHERS; SIGNING DATES FROM 20070817 TO 20070823; REEL/FRAME:019820/0290
US2008004592 AA	20121005	LSAS	AS	ASSIGNMENT	OWNER NAME : THE PROCTER AND GAMBLE COMPANY, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; ROE, DONALDCARROLL; AND OTHERS; SIGNING DATES FROM 20120902 TO 20121001; REEL/FRAME:029081/0001
US2008004593 AA	20080103	LSPB	+	published / reissued	
US2008004593 AA	20070914	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; ROE, DONALDCARROLL; AND OTHERS; REEL/FRAME:019831/0042; SIGNING DATES FROM 20070817 TO 20070823
US2008004593 AA	20070914	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; ROE, DONALDCARROLL; AND OTHERS; SIGNING DATES FROM 20070817 TO 20070823; REEL/FRAME:019831/0042
US2008004593 AA	20120304	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2008015537 AA	20080117	LSPB	+	published / reissued	
US2008015537 AA	20070927	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; ROE, DONALDCARROLL; AND OTHERS; REEL/FRAME:019885/0350; SIGNING DATES FROM 20070910 TO 20070925
US2008015537 AA	20140203	LSWD	-ABD3	Abandoned -- Failure to	

				Respond to an Office Action	
US2008045917 AA	20080221	LSPB	+	published / reissued	
US2008045917 AA	20070725	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:AUTRAN, JEAN-PHILIPPE MARIE; ROE, DONALD CARROLL; YOUNG, TERRILL ALAN; AND OTHERS; REEL/FRAME:019595/0315; SIGNING DATES FROM 20070629 TO 20070716
US2008045917 AA	20170522	LSES	NFA1	Non Final Action Mailed	
US2008125739 AA	20080529	LSPB	+	published / reissued	
US2008125739 AA	20151202	LSWD	-ABD1	Abandoned -- After Examiner's Answer or Board of Appeals Decision	
US2008188822 AA	20080807	LSPB	+	published / reissued	
US2008188822 AA	20080411	LSAS	AS	ASSIGNMENT	OWNER NAME : THE PROCTER AND GAMBLE COMPANY, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; ROE, DONALDCARROLL; AND OTHERS; REEL/FRAME:020790/0589; SIGNING DATES FROM 20080207 TO 20080411
US2008188822 AA	20120417	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US8235963 BB	20120807	LSGT	+	granted / extensions (spc, cpc, pte)	
US8235963 BB	20070212	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; ROE, DONALDCARROLL; AND OTHERS; REEL/FRAME:018892/0004; SIGNING DATES FROM 20070209 TO 20070212
US8235963 BB	20070212	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; ROE, DONALDCARROLL; AND OTHERS; SIGNING DATES FROM 20070209 TO 20070212; REEL/FRAME:018892/0004
US8235963 BB	20120718	LSGT	PAT1	Patented Case	
US8235963 BB	20160807	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US8235963 BB	20160927	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20160807
US8343126 BB	20130101	LSGT	+	granted / extensions (spc, cpc, pte)	
US8343126 BB	20070912	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; ROE, DONALDCARROLL; AND OTHERS; REEL/FRAME:019820/0269; SIGNING DATES FROM 20070817 TO 20070823

US8343126 BB	20070912	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; ROE, DONALDCARROLL; AND OTHERS; SIGNING DATES FROM 20070817 TO 20070823; REEL/FRAAME:019820/0269	
US8343126 BB	20121005	LSAS	AS	ASSIGNMENT	OWNER NAME : THE PROCTER AND GAMBLE COMPANY, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: LODGE, RICHARD WORTHINGTON; DESAI, FRED NAVAL; ROE, DONALDCARROLL; AND OTHERS; SIGNING DATES FROM 20120902 TO 20121001; REEL/FRAAME:029081/0027	
US8343126 BB	20121212	LSGT	PAT1	Patented Case		
US8343126 BB	20141111	LSRE	CC	CERTIFICATE OF CORRECTION		
US8343126 BB	20160627	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4	
US8777917 BB	20140715	LSGT	+	granted / extensions (spc, cpc, pte)		
US8777917 BB	20140625	LSGT	PAT1	Patented Case		
US9072633 BB	20150707	LSGT	+	granted / extensions (spc, cpc, pte)		
US9072633 BB	20150617	LSGT	PAT1	Patented Case		
WO07141745 A2	20071213	LSPB	+	published / reissued		
WO07141745 A2	20081205	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2008/015629 COUNTRY OF REF DOCUMENT : MX	
WO07141745 A2	20081208	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2654619 COUNTRY OF REF DOCUMENT : CA	
WO07141745 A2	20081208	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2009513831 COUNTRY OF REF DOCUMENT : JP	
WO07141745 A2	20090107	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : RU	
WO07141749 A1	20071213	LSPB	+	published / reissued		
WO07141750 A1	20071213	LSPB	+	published / reissued		
WO07141750 A1	20081205	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2008/015635 COUNTRY OF REF DOCUMENT : MX	
WO07141750 A1	20081208	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2654620 COUNTRY OF REF DOCUMENT : CA	
WO07141750 A1	20081208	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2009513833 COUNTRY OF REF DOCUMENT : JP	
WO07141751 A1	20071213	LSPB	+	published / reissued		
WO07141752 A1	20071213	LSPB	+	published / reissued		
WO07141753 A1	20071213	LSPB	+	published / reissued		
WO07141754 A1	20071213	LSPB	+	published / reissued		
WO07141755 A1	20071213	LSPB	+	published / reissued		
WO07141756 A1	20071213	LSPB	+	published / reissued		

WO07141757 A1	20071213	LSPB	+	published / reissued	
WO07141758 A1	20071213	LSPB	+	published / reissued	
WO07141759 A1	20071213	LSPB	+	published / reissued	
WO07146146 A2	20071221	LSPB	+	published / reissued	
WO07146146 A3	20081205	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2008/015628 COUNTRY OF REF DOCUMENT : MX
WO07146146 A3	20081208	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2654745 COUNTRY OF REF DOCUMENT : CA
WO07146146 A3	20081208	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2009514403 COUNTRY OF REF DOCUMENT : JP
WO07146146 A3	20090107	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : RU
WO07146147 A2	20071221	LSPB	+	published / reissued	
WO07146147 A3	20081205	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2656900 COUNTRY OF REF DOCUMENT : CA
WO07146147 A3	20090107	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : RU
WO07146148 A2	20071221	LSPB	+	published / reissued	
WO07146148 A3	20081205	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2009514404 COUNTRY OF REF DOCUMENT : JP
WO07146148 A3	20081205	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2008/015634 COUNTRY OF REF DOCUMENT : MX
WO07146148 A3	20081208	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2654750 COUNTRY OF REF DOCUMENT : CA
WO07146148 A3	20090107	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : RU
WO07146149 A2	20071221	LSPB	+	published / reissued	
WO07146149 A2	20081202	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2009513339 COUNTRY OF REF DOCUMENT : JP
WO07146149 A2	20081205	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2008/015630 COUNTRY OF REF DOCUMENT : MX
WO07146149 A2	20081208	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2654755 COUNTRY OF REF DOCUMENT : CA
WO07146149 A2	20090107	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : RU
WO07146150 A1	20071221	LSPB	+	published / reissued	
WO07146150 A1	20081208	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2654768 COUNTRY OF REF DOCUMENT : CA
WO07146151 A1	20071221	LSPB	+	published / reissued	
WO07146151 A1	20090105	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2656837 COUNTRY OF REF DOCUMENT : CA
WO07146152 A2	20071221	LSPB	+	published /	

WO07146152 A3	20081204	LSNP	+WWE	reissued WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2009514405 COUNTRY OF REF DOCUMENT : JP
WO07146152 A3	20081205	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2656840 COUNTRY OF REF DOCUMENT : CA
WO07146152 A3	20081205	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2008/015627 COUNTRY OF REF DOCUMENT : MX
WO07146152 A3	20090107	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : RU
WO07146153 A2	20071221	LSPB	+	published / reissued	
WO07146153 A2	20081205	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2009514406 COUNTRY OF REF DOCUMENT : JP
WO07146153 A2	20081205	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : MX/A/2008/015631 COUNTRY OF REF DOCUMENT : MX
WO07146153 A2	20081208	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2654780 COUNTRY OF REF DOCUMENT : CA
WO07146153 A2	20090107	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : RU

Title: REMOTE DETECTION SYSTEMS FOR **ABSORBENT ARTICLES**

Abstract: Source: US2010164733A Signaling systems are disclosed that indicate a change in an **absorbent article**, such as the presence of a body fluid. The various different signaling systems disclosed do not include any conductive elements contained on the interior of the **article** as were required in the past. Instead, the changes are monitored from the outer cover of the **article**. In one embodiment, for instance, conductive zones are formed directly into the outer cover for forming the signaling system. Alternatively, a sensor may be mounted to the outer cover of the **article** for monitoring changes within the **article**. The sensor may comprise, for instance, a temperature sensor, a conductivity sensor, an optical sensor, a vibration sensor, a humidity sensor, a material expansion sensor, a chemical sensor, or the like.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/20 A61F13/42 A61F13/44 A61F13/505 A61F13/511 A61F13/512 A61F13/53 A61F13/84 G01N21/35 G08B21/00 G08B3/00 G08B5/00 G08B6/00 (Advanced/Invention);

A61F13/42 A61F13/511 A61F13/512 A61F13/84

G01N27/22 (Advanced/Non-invention);

A61F13/15 A61F13/42 A61F13/44 G08B21/00 (Core/Invention)

International (IPC 1-7): A61F13/42 G08B21/20

CPC: A61B5/202 A61B5/6808 A61B5/7207 G01N27/223 A61F13/42 A61F13/505 A61F13/84 A61F2013/424 A61F2013/8482 G01N21/3554 G01N21/3577

European: A61F13/42

US: 340/532 340/539.1 340/573.1 340/573.6 340/604 340/604P 340/604S 340/605 340/612 340/620 604/361 604/361P

PatBase - US2010164733_AA

Patent Application Publication Jul. 1, 2010 Sheet 1 of 11 US 2010/0164733 A1

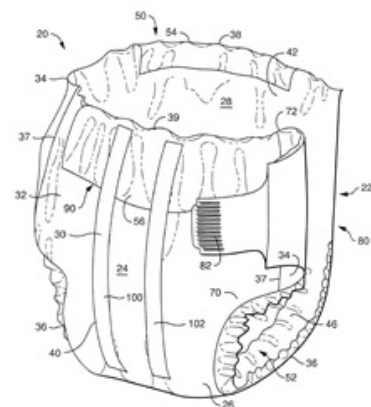


FIG. 1

Family:

Publication number	Publication date	Application number	Application date
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AR079480 AA	20120125	AR2010P104658	20101215
AU2009334407 AA	20100708	AU20090334407	20091117
AU2009334407 BB	20151022	AU20090334407	20091117
AU2010332429 AA	20110623	AU20100332429	20101118
AU2010332429 BB	20160204	AU20100332429	20101118
AU2010337961 AA	20110707	AU20100337961	20101118
AU2010337961 BB	20160526	AU20100337961	20101118
BR112012013127 A2	20170321	BR20121113127	20101118
BR112012015599 A2	20160322	BR20121115599	20101118
CN102271641 A	20111207	CN200980153352	20091117
CN102271641 B	20141105	CN200980153352	20091117
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EP2376047 A4	20120425	EP20090836154	20091117
EP2376047 B1	20150318	EP20090836154	20091117
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RU2011131921 A	20130210	RU20110131921	20091117
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US2010168694 AA	20100701	US20090636888	20091214
US2010168702 AA	20100701	US20090648645	20091229
US8274393 BB	20120925	US20080347539	20081231

US8866624 BB	20141021	US20090648645	20091229
WO10076679 A2	20100708	WO2009IB55120	20091117
WO10076679 A3	20101028	WO2009IB55120	20091117
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Priority:

EP20090836154 20091117 US20080347539 20081231 US20090648645 20091229
US20090636888 20091214 WO2009IB55120 20091117 WO2010IB55275 20101118
WO2010IB55277 20101118

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Assignee(s): KIMBERLY CLARK WORLDWIDE INC NEENAH ; KIMBERLI KLARK VORLDVAJD INK ; KIMBERLY CLARK WORLDWIDE INC

Inventor(s): (std): ALES III THOMAS M ; ALES III THOMAS MICHAEL ; ALES III TOMAS MAJKL ; ALES THOMAS MICHAEL ; ALES THOMAS MICHAEL III ; DZHAKHAR SUDKHANSHU ; EHLJS III TOMAS MAJKL ; EHLJS TOMAS MAJKL ; GAKHAR SUDHANSHU ; GAKKHAR SUDKHANSHU ; GEORGE SARKIS RANDALL ; NHAN DAVIS DANG H ; COHEN JASON C ; KOEHN DZHEJSON K ; LONG ANDREW M ; LONG ANDREW MARK ; NKHAN DEHVIS DANG KH ; RANDALL GEORGE SARKIS ; RANDZHANATAN SRIDKHAR ; RANGANATHAN SRIDHAR ; SALLIVEHN SHON DZHEFFRI ; SARKIS RANDAL DZHORDZH ; SARKIS RANDALL G ; SARKIS RANDALL GEORGE ; LONG EHNDJRJU MARK ; MARK LONG ANDREW ; MICHAEL ALES III THOMAS ; NHAN DAVIS DANG H ; SONG KSJUDONG ; SONG XUDONG ; SONG XUEDONG ; SRIDHAR RANGANATHAN ; SUDHANSHU GAKHAR ; SULLIVAN SHAWN JEFFERY ; SULLIVAN SHAWN JEFFREY ; TOMSOVICH CHAK R ; VEBER SHIRLI EHNN ; WEBER SHIRLEE ANN ; THOMAS MICHAEL ALES III ; TOMSOVIC CHUCK R

Inventor(s): TOMSOVIC CHUCK R OMRO ; WEBER SHIRLEE ANN NEENAH ; XUEDONG SONG ; SULLIVAN SHAWN JEFFREY NEENA ; THOMAS MICHAEL ALES ; SONG XUEDONG ALPHARETTA ; NHAN DAVIS DANG H APPLETON ; SHAWN JEFFERY SULLIVAN ; SHAWN JEFFREY SULLIVAN ; SHIRLEE ANN WEBER ; LONG ANDREW MARK APPLETON ; COHEN JASON C APPLETON ; DAVIS DANG H NHAN ; DAVIS DANG H NHAN ; JASON C COHEN ; ALES THOMAS MICHAEL NEENAH ; ANDREW MARK LONG ; CHUCK R TOMSOVIC

Agent(s): SPRUSON AND FERGUSON; DEHNS; DAVIES CHRISTOPHER ROBERT; DORITY AND MANNING PA; KIMBERLY CLARK WORLDWIDE INC TARA POHLKOTTE; KIMBERLY CLARK WORLDWIDE INC; CASSIDY TIMOTHY A ET AL; FIELDHACK RANDALL W 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 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
AR079176 AA	20111228	LSPB	+	published / reissued	
AR079176 AA	20170306	LSWD	-FB	SUSPENSION OF GRANTING PROCEDURE	
AR079480 AA	20120125	LSPB	+	published / reissued	
AU2009334407 AA	20100708	LSPB	+	published / reissued	
AU2009334407 AA	20160218	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2009334407 BB	20151022	LSGT	+	granted / extensions (spc, cpc, pte)	
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AU2010337961 AA	20160922	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2010337961 BB	20160526	LSGT	+	granted / extensions (spc, cpc, pte)	

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EP2376047 A2	20111116	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : TOMSOVIC, CHUCK, R.
EP2376047 A2	20111116	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : NHAN, DAVIS-DANG, H.
EP2376047 A2	20111116	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : WEBER, SHIRLEE, ANN
EP2376047 A2	20111116	LSRE	RIN1	INVENTOR (CORRECTION)	PARTYTYPE : INVENTOR INVENTOR : COHEN, JASON, C.
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EP2512392 A2	20121024	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120529
EP2512392 A2	20130710	LSSES	+A4	DESPATCH OF SUPPLEMENTARY SEARCH REPORT	EFFECTIVE DATE : 20130606
EP2512392 A2	20130710	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATION SCHEME : IPC CLASSIFICATION SYMBOL : A61F 13/42 20060101AFI20130531BHEP
EP2512392 A2	20130710	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATION SCHEME : IPC CLASSIFICATION SYMBOL : A61F 13/84 20060101ALI20130531BHEP

EP2512392 A2	20130710	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G01N 21/35 20060101ALI20130531BHEP
EP2512392 A2	20130710	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : A61F 13/505 20060101ALI20130531BHEP
EP2512392 A2	20170322	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20170215
EP2519207 A2	20121107	LSPB	+	published / reissued	
EP2519207 A2	20121107	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120621
EP2519207 A2	20130710	LSES	+A4	DESPATCH OF SUPPLEMENTARY SEARCH REPORT	EFFECTIVE DATE : 20130606
EP2519207 A2	20130710	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G08B 5/00 20060101ALI20130531BHEP
EP2519207 A2	20130710	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : A61F 13/42 20060101AFI20130531BHEP
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EP2519207 A2	20130710	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : A61F 13/84 20060101ALI20130531BHEP
EP2519207 A2	20130710	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : A61F 13/505 20060101ALI20130531BHEP
EP2519207 A2	20130710	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : A61B 5/00 20060101ALI20130531BHEP
EP2519207 A2	20170322	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20170220
KR20110107330 A	20110930	LSPB	+	published / reissued	
KR20110107330 A	20160219	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20110107330 A	20160830	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20120104240 A	20120920	LSPB	+	published / reissued	
KR20120104240 A	20151026	LSES	A201	REQUEST FOR EXAMINATION	
KR20120104240 A	20161128	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20120112500 A	20121011	LSPB	+	published / reissued	
KR20120112500 A	20151117	LSES	A201	REQUEST FOR EXAMINATION	
KR20120112500 A	20170113	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
MX2011007017 A1	20110906	LSPB	+	published / reissued	
MX2011007017 A1	20130109	LSGT	+FG	GRANT OR REGISTRATION	
MX2012006848 A1	20120717	LSPB	+	published / reissued	

MX2012006848 A1	20131120	LSGT	+FG	GRANT OR REGISTRATION	
MX2012007629 A1	20121106	LSPB	+	published / reissued	
MX2012007629 A1	20140508	LSGT	+FG	GRANT OR REGISTRATION	
RU2011131921 A	20130210	LSPB	+	published / reissued	
RU2012129670 A	20140127	LSPB	+	published / reissued	
RU2012132222 A	20140210	LSPB	+	published / reissued	
RU2506939 C2	20140220	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2553008 C2	20150610	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2553008 C2	20160620	LSLE	-MM4A	THE PATENT IS INVALID DUE TO NON-PAYMENT OF FEES	EFFECTIVE DATE : 20151119
RU2571808 C2	20151220	LSGT	+	granted / extensions (spc, cpc, pte)	
US2010164733 AA	20100701	LSPB	+	published / reissued	
US2010164733 AA	20090320	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: ALES, THOMAS MICHAEL; LONG, ANDREW MARK; TOMSOVIC, CHUCK R. AND OTHERS; SIGNED BETWEEN 20090310 AND 20090311; REEL/FRA: 22424/947
US2010164733 AA	20090320	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: ALES, THOMAS MICHAEL; LONG, ANDREW MARK; TOMSOVIC, CHUCK R.; AND OTHERS; SIGNING DATES FROM 20090310 TO 20090311; REEL/FRA: 022424/0947
US2010164733 AA	20100324	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: SULLIVAN, SHAWN JEFFERY; SONG, XUEDONG; SIGNED BETWEEN 20091105 AND 20091110; REEL/FRA: 24132/419
US2010164733 AA	20100324	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: SULLIVAN, SHAWN JEFFERY; SONG, XUEDONG; SIGNING DATES FROM 20091105 TO 20091110; REEL/FRA: 024132/0419
US2010168694 AA	20100701	LSPB	+	published / reissued	
US2010168694 AA	20100202	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: GAKHAR, SUDHANSHU; RANGANATHAN, SRIDHAR; ALES III, THONMAMICHAEL AND OTHERS; SIGNED BETWEEN 20091214 AND 20091215; REEL/FRA: 23885/284
US2010168694 AA	20100202	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: GAKHAR, SUDHANSHU; RANGANATHAN, SRIDHAR; ALES III,

					THONMASMICHAEL; AND OTHERS; SIGNING DATES FROM 20091214 TO 20091215; REEL/FRAME:023885/0284
US2010168694 AA	20150203	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK WORLDWIDE, INC.; REEL/FRAME:034880/0634 EFFECTIVE DATE : 20150101
US2010168694 AA	20170206	LSES	ADV1	Advisory Action Mailed	
US2010168702 AA	20100701	LSPB	+	published / reissued	
US2010168702 AA	20100202	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ALES III, THOMAS MICHAEL; GAKHAR, SUDHANSHU; LONG, ANDREW MARK; SIGNED BETWEEN 20091231 AND 20100130; REEL/FRAME:23883/495
US2010168702 AA	20100202	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ALES III, THOMAS MICHAEL; GAKHAR, SUDHANSHU; LONG, ANDREW MARK; SIGNING DATES FROM 20091231 TO 20100130; REEL/FRAME:023883/0495
US8274393 BB	20120925	LSGT	+	granted / extensions (spc, cpc, pte)	
US8274393 BB	20090320	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ALES, THOMAS MICHAEL; LONG, ANDREW MARK; TOMSOVIC, CHUCK R.; AND OTHERS; SIGNING DATES FROM 20090310 TO 20090311; REEL/FRAME:022424/0947
US8274393 BB	20090320	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ALES, THOMAS MICHAEL; LONG, ANDREW MARK; TOMSOVIC, CHUCK R.; AND OTHERS; SIGNING DATES FROM 20090310 TO 20090311; REEL/FRAME:022424/0947
US8274393 BB	20100324	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SULLIVAN, SHAWN JEFFERY; SONG, XUEDONG; SIGNING DATES FROM20091105 TO 20091110; REEL/FRAME:024132/0419
US8274393 BB	20100324	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SULLIVAN, SHAWN JEFFERY; SONG, XUEDONG; SIGNING DATES FROM20091105 TO 20091110; REEL/FRAME:024132/0419
US8274393 BB	20120905	LSGT	PAT1	Patented Case	
US8274393 BB	20150203	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK WORLDWIDE, INC.; REEL/FRAME:034880/0704 EFFECTIVE DATE : 20150101
US8274393 BB	20160325	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4

US8866624 BB	20141021	LSGT	+	granted / extensions (spc, cpc, pte)	
US8866624 BB	20100202	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ALES III, THOMAS MICHAEL; GAKHAR, SUDHANSHU; LONG, ANDREW MARK; SIGNING DATES FROM 20091231 TO 20100130; REEL/FRAME:023883/0495
US8866624 BB	20141001	LSGT	PAT1	Patented Case	
US8866624 BB	20150203	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK WORLDWIDE, INC.; REEL/FRAME:034880/0704 EFFECTIVE DATE : 20150101
WO10076679 A2	20100708	LSPB	+	published / reissued	
WO10076679 A2	20110801	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2011131921 COUNTRY OF REF DOCUMENT : RU KIND CODE OF REF DOCUMENT : A
WO10076679 A3	20110527	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2009334407 COUNTRY OF REF DOCUMENT : AU
WO10076679 A3	20110616	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2009334407 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20091117 KIND CODE OF REF DOCUMENT : A
WO10076679 A3	20110629	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20117014973 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A
WO10076679 A3	20110630	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO10076679 A3	20110801	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2011131921 COUNTRY OF REF DOCUMENT : RU KIND CODE OF REF DOCUMENT : A
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WO11073825 A2	20120510	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010332429 COUNTRY OF REF DOCUMENT : AU
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WO11073825 A2	20120613	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20127015214 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :

WO11073825 A2	20120614	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO11073825 A2	20120716	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012129670 COUNTRY OF REF DOCUMENT : RU
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WO11080607 A2	20110707	LSPB	+	published / reissued	
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WO11080607 A3	20120614	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2010337961 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20101118 KIND CODE OF REF DOCUMENT : A
WO11080607 A3	20120628	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20127016775 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A
WO11080607 A3	20120629	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO11080607 A3	20120730	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2012132222 COUNTRY OF REF DOCUMENT : RU KIND CODE OF REF DOCUMENT : A
WO11080607 A3	20120730	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2012132222 COUNTRY OF REF DOCUMENT : RU
WO11080607 A3	20160322	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 112012015599 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 EFFECTIVE DATE : 20120625

Title: PROCESS FOR MAKING AN EMBOSSED WEB

Abstract: Source: US2010230857A A process for making an embossed web. A precursor web is provided between a forming structure and a compliant substrate. The forming structure has a plurality of discrete apertures or depressions. Pressure is provided between the compliant substrate and the forming structure to force the precursor web into the apertures or depressions of forming structure to form the embossed web. The resulting embossed web has a plurality of discrete extended elements.

Classifications:

International (IPC 8-9): A47L13/16 A61C13/01 A61F13/15 A61F13/472 A61F13/49 A61F13/511 A61F13/512 A61F13/514 A61F13/53 A61F13/534 A61F13/551 B26F1/24 B26F1/26 B28B11/08 B29C B29C43/24 B29C43/56 B29C55/18 B29C59/00 B29C59/02 B29C59/04 B29C63/02 B29C65/00 B29C65/18 B29C65/56 B29C65/66 B29C65/76 B29D7/01 B31B39/14 B31F1/07 B32B B32B1/00 B32B27/06 B32B27/08 B32B27/12 B32B27/20 B32B27/32 B32B3/00 B32B3/10 B32B3/24 B32B3/26 B32B3/28 B32B3/30 B32B37/06 B32B38/06 B32B5/02 B32B5/06 B32B5/16 B32B5/24 B32B5/26 B32B7/00 B32B7/02 B32B7/04 B32B7/06 B32B7/08 B44C1/24 B44F1/08 B65B51/04 B65D30/02 B65D75/00 B65D75/04 B65F1/00 C08J5/18 D04H1/44 D04H1/72 D04H1/732 D04H1/76 D04H11/00 D04H11/08 D04H13/00 D04H3/07 D06C23/04 D06C3/00 D06C3/06 D21H27/02 D21H27/38 G02B5/30 (Advanced/Invention); A61F13/15 A61F13/538 B29C59/04 B29C59/06 B29C65/70 B29C65/72 B29L31/48 B29L9/00 B32B27/32 B32B37/00 B32B37/10 B32B37/30 B32B38/12 B65D85/00 (Advanced/Non-invention); A61F13/15 B26F1/00 B28B11/08 B29C43/32 B29C55/18 B29C59/02 B29C59/04 B29C63/02 B29C65/56 B31B39/00 B32B1/00 B32B27/32 B32B3/00 B32B3/10 B32B3/28 B32B3/30 (Core/Invention); B29C B31B B32B (Subclass/Invention)

International (IPC 1-7): B32B3/28

CPC: B29C59/02 B29D7/01 B32B3/263 B29C43/24 B29C66/91221

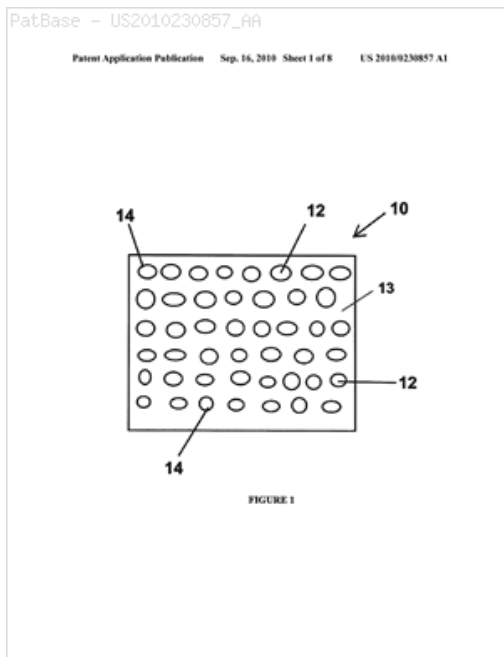
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European: A61F13/15M6 A61F13/15M6C A61F13/15M6D A61F13/511A A61F13/512A B26F1/24 B26F1/26 B29C55/18 B29C59/02C B29C65/18 B29C65/56 B29C66/21 B29C66/45 B29C66/7294 B29C66/81435 B29C66/81457 B29C66/8266 B29C66/82661 B29C66/83411 B29C66/83413 B29C66/83415 B29C66/83511 B29C66/83513 B31F1/07 B32B27/12 B32B27/20 B32B3/26B B32B3/28 B32B3/30 B32B38/06 B32B5/02A B32B5/06 B32B7/02 B32B7/04A B32B7/08 B44C1/24 L26F1/24 L29C59/02C L29C59/04 L29C59/06 L29C66/71 L29C66/82661 L29C66/83513 L29C66/919 B29C66/91935 L29C66/939 L29C66/949 L29L31/48E2 L29L9/00 L31F201/07C2B L31F201/07C2D3G L31F201/07C2D3J L32B323/04 L32B323/10 L32B37/00D2 L32B37/00E L32B37/10G L32B38/12

US: 1/1 156/219 156/219S 162/133 206/524.6 206/524.600S 264/154 264/155 264/156 264/175 264/175S 264/273 264/284 264/284P 264/285 264/286 264/293 264/293P 264/503 264/504 264/504P 264/508 264/509 264/555 264/570 383/105 383/105S 428/131 428/131S 428/132 428/132S 428/133 428/133P 428/138 428/138 428/156 428/156P 428/158 428/158S 428/161 428/161S 428/164 428/164S 428/172 428/172P 428/174 428/174S 428/175 428/175S 428/207 428/216 428/35.2 428/85 428/85P

Family:

Publication number	Publication date	Application number	Application date
AR075827 AA	20110427	AR2010P100783	20100312
AR075828 AA	20110427	AR2010P100784	20100312
AR075830 AA	20110427	AR2010P100788	20100312
AR077735 AA	20110921	AR2010P100785	20100312
AU2010224056 AA	20100916	AU20100224056	20100312
AU2010224058 AA	20100916	AU20100224058	20100312
AU2010224113 AA	20100916	AU20100224113	20100311
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BR112012021780 A2	20160517	BR20121121780	20100910
BRPI1007833 A2	20160223	BR2010PI07833	20100311
BRPI1009185 A2	20160301	BR2010PI09185	20100312
BRPI1009188 A2	20160301	BR2010PI09188	20100312
BRPI1009231 A2	20160315	BR2010PI09231	20100311
BRPI1012595 A2	20160322	BR2010PI12595	20100311
BRPI1012596 A2	20160322	BR2010PI12596	20100311
BRPI1012597 A2	20160322	BR2010PI12597	20100311
CA2755119 AA	20110909	CA20102755119	20100312
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CA2755124 AA	20100916	CA20102755124	20100312



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CA2755269 AA	20100916	CA20102755269	20100311
CA2755269 C	20140506	CA20102755269	20100311
CA2755277 AA	20100916	CA20102755277	20100311
CA2792144 AA	20110915	CA20102792144	20100910
CA2832755 AA	20131008	CA20122832755	20120425
CA2832755 C	20170110	CA20122832755	20120425
CA2949810 AA	20121101	CA20122949810	20120425
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CL2011002262 A1	20120203	CL20110002262	20110913
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Priority:

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Probable Assignee: PROCTER AND GAMBLE

Assignee(s): (std): GILBERTSON GARY WAYNE ; GRAY BRIAN FRANCIS ; PROCTER AND GAMBLE ; GROSS SARAH BETH ; MUHS KEVIN GERARD ; HAMMONS JOHN LEE ; ORR JILL MARLENE ; LAKE KIRK WALLACE ; MULLANE TIMOTHY IAN ; YOUNG ROGER DALE ; STONE KEITH JOSEPH ; VAN VALKENBURGH CURTIS HUNTER ; YOUNG ROGER D ; VAN VALKENBURG CURTIS HUNTER ; STRUBE JOHN BRIAN ; COE RICHARD GEORGE ; CURRO JOHN JOSEPH

Assignee(s): DZE PROKTER EHND GEHMBL KOMPANI ; PROCTOR AND GAMBLE CO ; PROCTER AND GAMBLE COWORLD SHAVING H.Q.IP/LEGAL PATENT DEPT. - 3EONE GILLETTE PARKBOSTONMA02127US ; PROCTER AND GAMBLE COWORLD SHAVING HEADQUARTERSIP/LEGAL PATENT DEPARTMENT - 3EONE GILLETTE PARKBOSTONMA02127US ; PROCTER AND GAMBLE CO CINCINNATI ; PROCTER AND GAMBLE CO

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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)

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Patent	Date recorded	Event group	Code	Event	Details
AR075827 AA	20110427	LSPB	+	published / reissued	
AR075827 AA	20140919	LSWD	-FB	SUSPENSION OF GRANTING PROCEDURE	
AR075828 AA	20110427	LSPB	+	published / reissued	
AR075828 AA	20130813	LSWD	-FB	SUSPENSION OF GRANTING PROCEDURE	
AR075830 AA	20110427	LSPB	+	published / reissued	
AR075830 AA	20141203	LSWD	-FA	ABANDONMENT OR WITHDRAWAL	
AR077735 AA	20110921	LSPB	+	published / reissued	

AR077735 AA	20131128	LSWD	-FB	SUSPENSION OF GRANTING PROCEDURE	
AU2010224056 AA	20100916	LSPB	+	published / reissued	
AU2010224056 AA	20141009	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
AU2010224058 AA	20100916	LSPB	+	published / reissued	
AU2010224058 AA	20141009	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
AU2010224113 AA	20100916	LSPB	+	published / reissued	
AU2010224113 AA	20141009	LSLE	-MK4	APPLICATION LAPSED SECTION 142(2)(D) - NO CONTINUATION FEE PAID FOR THE APPLICATION	
BR112012021775 A2	20160517	LSPB	+	published / reissued	
BR112012021775 A2	20160920	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 6A ANUIDADE.
BR112012021775 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.
BR112012021780 A2	20160517	LSPB	+	published / reissued	
BR112012021780 A2	20160920	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 6A ANUIDADE.
BR112012021780 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.
BRPI1007833 A2	20160223	LSPB	+	published / reissued	
BRPI1007833 A2	20160913	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 6A ANUIDADE.
BRPI1007833 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.
BRPI1009185 A2	20160301	LSPB	+	published / reissued	
BRPI1009185 A2	20160913	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 6A ANUIDADE.

BRPI1009185 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.
BRPI1009188 A2	20160301	LSPB	+	published / reissued	
BRPI1009188 A2	20160906	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 6A ANUIDADE.
BRPI1009188 A2	20161220	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 2383 DE 06-09-2016 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.
BRPI1009231 A2	20160315	LSPB	+	published / reissued	
BRPI1009231 A2	20160906	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 6A ANUIDADE.
BRPI1009231 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 2383 DE 06-09-2016 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.
BRPI1012595 A2	20160322	LSPB	+	published / reissued	
BRPI1012595 A2	20160913	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	TEXT : REFERENTE A 6A ANUIDADE.
BRPI1012595 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.
BRPI1012596 A2	20160322	LSPB	+	published / reissued	
BRPI1012596 A2	20160607	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	DESCRIPTION : REFERENTE A 6A ANUIDADE.
BRPI1012596 A2	20160927	LSLE	-B08K	LAPSE AS NO EVIDENCE OF PAYMENT OF THE ANNUAL FEE HAS BEEN FURNISHED TO INPI (ACC. ART. 87)	DESCRIPTION : EM VIRTUDE DO ARQUIVAMENTO PUBLICADO NA RPI 2370 DE 07-06-2016 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.
BRPI1012597 A2	20160322	LSPB	+	published / reissued	
BRPI1012597 A2	20160913	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF	TEXT : REFERENTE A 6A ANUIDADE.

				INDUSTRIAL PROPERTY LAW	
BRPI1012597 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.
CA2755119 AA	20110909	LSPB	+	published / reissued	
CA2755119 AA	20110909	LSES	+EEER	EXAMINATION REQUEST	
CA2755119 AA	20111031	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20110909
CA2755119 AA	20160425	LSLE	-MKLA	LAPSED	EFFECTIVE DATE : 20160314
CA2755119 C	20141007	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2755124 AA	20100916	LSPB	+	published / reissued	
CA2755124 AA	20110909	LSES	+EEER	EXAMINATION REQUEST	
CA2755124 AA	20111028	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20110909
CA2755124 AA	20160425	LSLE	-MKLA	LAPSED	EFFECTIVE DATE : 20160314
CA2755124 C	20140506	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2755269 AA	20100916	LSPB	+	published / reissued	
CA2755269 AA	20110913	LSES	+EEER	EXAMINATION REQUEST	
CA2755269 AA	20111101	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20110913
CA2755269 AA	20160425	LSLE	-MKLA	LAPSED	EFFECTIVE DATE : 20160311
CA2755269 C	20140506	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2755277 AA	20100916	LSPB	+	published / reissued	
CA2755277 AA	20110913	LSES	+EEER	EXAMINATION REQUEST	
CA2755277 AA	20111101	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20110913
CA2755277 AA	20141116	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20140919
CA2792144 AA	20110915	LSPB	+	published / reissued	
CA2792144 AA	20120905	LSES	+EEER	EXAMINATION REQUEST	
CA2792144 AA	20121026	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20120905
CA2792144 AA	20150715	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20150520
CA2832755 AA	20131008	LSPB	+	published / reissued	
CA2832755 AA	20131123	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20131008
CA2832755 C	20170110	LSGT	+	granted / extensions (spc, cpc, pte)	
CA2949810 AA	20121101	LSPB	+	published / reissued	
CA2949810 AA	20161219	LSES	+EEER	EXAMINATION REQUEST	EFFECTIVE DATE : 20161128
CL2011002261 A1	20120203	LSPB	+	published / reissued	
CL2011002262 A1	20120203	LSPB	+	published /	

CL2011002263 A1	20120203	LSPB	+	reissued published / reissued
CN102348437 A	20120208	LSPB	+	published / reissued
CN102348437 A	20120208	LSPB	+C06	PUBLICATION
CN102348437 A	20130911	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL
CN102348437 B	20130911	LSGT	+	granted / extensions (spc, cpc, pte)
CN102348438 A	20120208	LSPB	+	published / reissued
CN102348438 A	20120208	LSPB	+C06	PUBLICATION
CN102348438 A	20140108	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL
CN102348438 B	20140108	LSGT	+	granted / extensions (spc, cpc, pte)
CN102348439 A	20120208	LSPB	+	published / reissued
CN102348439 A	20120208	LSPB	+C06	PUBLICATION
CN102348439 A	20150218	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL
CN102348439 B	20150218	LSGT	+	granted / extensions (spc, cpc, pte)
CN102348440 A	20120208	LSPB	+	published / reissued
CN102348440 A	20120208	LSPB	+C06	PUBLICATION
CN102348440 A	20130821	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL
CN102348440 B	20130821	LSGT	+	granted / extensions (spc, cpc, pte)
CN102348550 A	20120208	LSPB	+	published / reissued
CN102348550 A	20120208	LSPB	+C06	PUBLICATION
CN102438818 A	20120502	LSPB	+	published / reissued
CN102438818 A	20120502	LSPB	+C06	PUBLICATION
CN102438818 A	20160525	LSRV	-C12	REJECTION OF A PATENT APPLICATION AFTER ITS PUBLICATION
CN102438819 A	20120502	LSPB	+	published / reissued
CN102438819 A	20120502	LSPB	+C06	PUBLICATION
CN102438819 A	20160608	LSDW	-C20	PATENT RIGHT OR UTILITY MODEL DEEMED TO BE ABANDONED OR IS ABANDONED
CN102791233 A	20121121	LSPB	+	published / reissued
CN102791233 A	20121121	LSPB	+C06	PUBLICATION
CN102791233 A	20150429	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL
CN102791233 A	20161109	LSRV	-EXPY	TERMINATION OF PATENT RIGHT OR UTILITY MODEL
CN102791233 B	20150429	LSGT	+	granted / extensions (spc, cpc, pte)
CN103096855 A	20130508	LSPB	+	published / reissued
CN103096855 A	20130508	LSPB	+C06	PUBLICATION
CN103096855 A	20160803	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL
CN103096855 B	20160803	LSGT	+	granted / extensions (spc, cpc, pte)

CN103491913 A	20140101	LSPB	+	published / reissued	
CN103491913 A	20140101	LSPB	+C06	PUBLICATION	
CN103491913 A	20160518	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN103491913 B	20160518	LSGT	+	granted / extensions (spc, cpc, pte)	
CN103491920 A	20140101	LSPB	+	published / reissued	
CN103491920 A	20140101	LSPB	+C06	PUBLICATION	
CN103491920 A	20170301	LSGT	+GR01	PATENT GRANT	
CN103491920 B	20170301	LSGT	+	granted / extensions (spc, cpc, pte)	
CN104644337 A	20150527	LSPB	+	published / reissued	
CN104644337 A	20150527	LSPB	+C06	PUBLICATION	
CN105624921 A	20160601	LSPB	+	published / reissued	
CN105624921 A	20160601	LSPB	+C06	PUBLICATION	
EP2405872 A1	20120118	LSPB	+	published / reissued	
EP2405872 A1	20120118	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110824
EP2405872 A1	20130417	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2405872 A1	20130430	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2405872 A1	20130508	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2405872 A1	20130515	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 606776 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20130515
EP2405872 A1	20130613	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602010006337 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20130613
EP2405872 A1	20130915	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 606776 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20130417
EP2405872 A1	20130925	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2405872 A1	20131009	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : VDEP EFFECTIVE DATE : 20130417
EP2405872 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : BE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417

EP2405872 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130717
EP2405872 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130817
EP2405872 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130718
EP2405872 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130819
EP2405872 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130728
EP2405872 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE

PREScribed TIME-LIMIT
LAPSED DATE : 20130417

EP2405872 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CY NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : FI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LV NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : GR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130718
EP2405872 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : PL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : BE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : HR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : BG NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO

				EPO	PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130717
EP2405872 A1	20140131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20140131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20140131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20140131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20140228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20140228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20140228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20140228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20140228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20140326	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20140120
EP2405872 A1	20140430	LSRE	REG	REFERENCE TO A	REF COUNTRY CODE : DE

				NATIONAL CODE	REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602010006337 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20140120
EP2405872 A1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140311
EP2405872 A1	20141031	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2405872 A1	20141231	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2405872 A1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20140311
EP2405872 A1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20140331
EP2405872 A1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20140331
EP2405872 A1	20160223	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2405872 A1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20160531	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160223 YEAR OF FEE PAYMENT : 7
EP2405872 A1	20160531	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160224 YEAR OF FEE PAYMENT : 7
EP2405872 A1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONNOFLAPSE :

				VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405872 A1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : HU NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20100311
EP2405872 A1	20160729	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160324 YEAR OF FEE PAYMENT : 7
EP2405872 A1	20170222	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2405872 A1	20170428	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170222 YEAR OF FEE PAYMENT : 8
EP2405872 B1	20130417	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2405873 A1	20120118	LSPB	+	published / reissued	
EP2405873 A1	20120118	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110906
EP2405873 A1	20130417	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2405873 A1	20130430	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2405873 A1	20130508	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2405873 A1	20130515	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 606777 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20130515
EP2405873 A1	20130613	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602010006340 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20130613
EP2405873 A1	20130717	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : T3
EP2405873 A1	20130828	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2420996 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20130828
EP2405873 A1	20130915	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 606777 COUNTRY OF REF DOCUMENT : AT

					KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20130417
EP2405873 A1	20130925	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2405873 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130718
EP2405873 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130817
EP2405873 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405873 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405873 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405873 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130819
EP2405873 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130717
EP2405873 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405873 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417

EP2405873 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : PL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405873 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : FI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405873 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : BG NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130717
EP2405873 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : HR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405873 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : GR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130718
EP2405873 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LV NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405873 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405873 A1	20140131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : EE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405873 A1	20140131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : DK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405873 A1	20140131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE

EP2405873 A1	20140131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	PREScribed TIME-LIMIT LAPSED DATE : 20130417
EP2405873 A1	20140228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CZ NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405873 A1	20140228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : RO NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405873 A1	20140228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CZ NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405873 A1	20140228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405873 A1	20140228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405873 A1	20140326	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20140120
EP2405873 A1	20140430	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20140307 YEAR OF FEE PAYMENT : 5
EP2405873 A1	20140430	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602010006340 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20140120
EP2405873 A1	20140530	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20140324 YEAR OF FEE PAYMENT : 5
EP2405873 A1	20140731	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20140324 YEAR OF FEE PAYMENT : 5
EP2405873 A1	20140829	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20140311 YEAR OF FEE PAYMENT : 5
EP2405873 A1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LU NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140311
EP2405873 A1	20141031	LSLE	REG	REFERENCE TO A	REF COUNTRY CODE : CH

EP2405873 A1	20141231	LSLE	REG	NATIONAL CODE REFERENCE TO A NATIONAL CODE	REF LEGAL EVENT CODE : PL REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2405873 A1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20140331
EP2405873 A1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20140331
EP2405873 A1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20140311
EP2405873 A1	20151130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20150312
EP2405873 A1	20151201	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : SE REF LEGAL EVENT CODE : EUG
EP2405873 A1	20160223	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2405873 A1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : MT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405873 A1	20160427	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20160427
EP2405873 A1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405873 A1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130417
EP2405873 A1	20160531	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160223 YEAR OF FEE PAYMENT : 7
EP2405873 A1	20160531	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160224 YEAR OF FEE PAYMENT : 7
EP2405873 A1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : TR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT

LAPSED DATE : 20130417					
EP2405873 A1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : HU NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20100311
EP2405873 A1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : ES NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20150312
EP2405873 A1	20160729	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160324 YEAR OF FEE PAYMENT : 7
EP2405873 A1	20170222	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2405873 A1	20170428	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170222 YEAR OF FEE PAYMENT : 8
EP2405873 B1	20130417	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2405874 A1	20120118	LSPB	+	published / reissued	
EP2405874 A1	20120118	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110906
EP2405874 A1	20130501	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2405874 A1	20130515	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2405874 A1	20130515	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 609428 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20130515
EP2405874 A1	20130522	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2405874 A1	20130704	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602010006701 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20130704
EP2405874 A1	20130915	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 609428 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20130501
EP2405874 A1	20131023	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : VDEP EFFECTIVE DATE : 20130501
EP2405874 A1	20131025	LSRV	REG	REFERENCE TO A	REF COUNTRY CODE : LT

				NATIONAL CODE	REF LEGAL EVENT CODE : MG4D
EP2405874 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : NO NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130801
EP2405874 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : ES NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130812
EP2405874 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IS NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130901
EP2405874 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : FI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : PT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130902
EP2405874 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : AT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM	COUNTRY OF REF DOCUMENT : GR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION

				NAT. OFFICE TO EPO	OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130802
EP2405874 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CY NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130801
EP2405874 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130802
EP2405874 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20131231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20140131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE :

				VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20140131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CZ NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20140131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : DK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20140131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20140131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : BE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20140228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CZ NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20140228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : RO NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20140228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20140228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : NL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20140228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20140409	LSGT	+26N	NO OPPOSITION	EFFECTIVE DATE : 20140204

FILED					
EP2405874 A1	20140515	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602010006701 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20140204
EP2405874 A1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LU NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20140311
EP2405874 A1	20141031	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2405874 A1	20141231	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2405874 A1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CH NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20140331
EP2405874 A1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20140311
EP2405874 A1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20140331
EP2405874 A1	20160223	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2405874 A1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : MT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SM NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : MC NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20160531	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160223 YEAR OF FEE PAYMENT : 7
EP2405874 A1	20160531	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160224 YEAR OF FEE PAYMENT : 7

EP2405874 A1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : TR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130501
EP2405874 A1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : HU NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT; INVALID AB INITIO LAPSED DATE : 20100311
EP2405874 A1	20160729	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160324 YEAR OF FEE PAYMENT : 7
EP2405874 A1	20170222	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2405874 A1	20170428	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170222 YEAR OF FEE PAYMENT : 8
EP2405874 B1	20130501	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2405875 A1	20120118	LSPB	+	published / reissued	
EP2405875 A1	20120118	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110824
EP2405875 A1	20121212	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2405875 A1	20121214	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2405875 A1	20121215	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 587977 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20121215
EP2405875 A1	20130116	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2405875 A1	20130207	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602010004106 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20130207
EP2405875 A1	20130228	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : SE PAYMENT DATE : 20121219 YEAR OF FEE PAYMENT : 4
EP2405875 A1	20130329	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GR REF LEGAL EVENT CODE : EP REF DOCUMENT NUMBER : 20130400118 COUNTRY OF REF DOCUMENT : GR EFFECTIVE DATE : 20130225
EP2405875 A1	20130417	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2401232 COUNTRY OF REF DOCUMENT

					: ES KIND CODE OF REF DOCUMENT : T3 DESIGNATED STATE(S) : EFFECTIVE DATE : 20130417
EP2405875 A1	20130424	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : T3
EP2405875 A1	20130430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121212
EP2405875 A1	20130430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130312
EP2405875 A1	20130430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121212
EP2405875 A1	20130430	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : ES PAYMENT DATE : 20130103 YEAR OF FEE PAYMENT : 4
EP2405875 A1	20130515	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 587977 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20121212
EP2405875 A1	20130527	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2405875 A1	20130531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121212
EP2405875 A1	20130531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121212
EP2405875 A1	20130531	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20121228 YEAR OF FEE PAYMENT : 4
EP2405875 A1	20130531	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : GR PAYMENT DATE : 20130122 YEAR OF FEE PAYMENT : 4
EP2405875 A1	20130531	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20130102 YEAR OF FEE PAYMENT : 4

EP2405875 A1	20130731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : BG NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130312
EP2405875 A1	20130731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : EE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121212
EP2405875 A1	20130731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IS NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130412
EP2405875 A1	20130731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121212
EP2405875 A1	20130731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : AT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121212
EP2405875 A1	20130731	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : CZ PAYMENT DATE : 20130108 YEAR OF FEE PAYMENT : 4
EP2405875 A1	20130830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : PT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20130412
EP2405875 A1	20130830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : RO NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121212
EP2405875 A1	20130830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : AT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121212
EP2405875 A1	20130830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : PL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121212
EP2405875 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED	COUNTRY OF REF DOCUMENT : DK NOTIFICATION OF LAPSE :

				VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121212
EP2405875 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : MC NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20130331
EP2405875 A1	20131031	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : HU PAYMENT DATE : 20121228 YEAR OF FEE PAYMENT : 4
EP2405875 A1	20131120	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20130913
EP2405875 A1	20131128	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HU REF LEGAL EVENT CODE : AG4A REF DOCUMENT NUMBER : E017306 COUNTRY OF REF DOCUMENT : HU
EP2405875 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : HR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121212
EP2405875 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CY NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121212
EP2405875 A1	20140101	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2405875 A1	20140109	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602010004106 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20130913
EP2405875 A1	20140131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20130311
EP2405875 A1	20140731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : MT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121212
EP2405875 A1	20141022	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : V1 EFFECTIVE DATE : 20141001
EP2405875 A1	20141031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CZ NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20140311
EP2405875 A1	20141031	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2405875 A1	20141104	LSLE	REG	REFERENCE TO A	REF COUNTRY CODE : SE

EP2405875 A1	20141127	LSLE	REG	NATIONAL CODE REFERENCE TO A NATIONAL CODE	REF LEGAL EVENT CODE : EUG REF COUNTRY CODE : GR REF LEGAL EVENT CODE : ML REF DOCUMENT NUMBER : 20130400118 COUNTRY OF REF DOCUMENT : GR EFFECTIVE DATE : 20141002
EP2405875 A1	20141128	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20140312
EP2405875 A1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20141002
EP2405875 A1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20140331
EP2405875 A1	20150130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20140331
EP2405875 A1	20150227	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : HU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20140312
EP2405875 A1	20150227	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20141001
EP2405875 A1	20150331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20140311
EP2405875 A1	20150528	LSLE	REG	NATIONAL CODE REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20150528
EP2405875 A1	20150529	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20121212
EP2405875 A1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20140312
EP2405875 A1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LU NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON- PAYMENT OF DUE FEES LAPSED DATE : 20130311
EP2405875 A1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : MK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT

LAPSED DATE : 20121212					
EP2405875 A1	20160223	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2405875 A1	20160531	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160224 YEAR OF FEE PAYMENT : 7
EP2405875 A1	20160531	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160223 YEAR OF FEE PAYMENT : 7
EP2405875 A1	20160729	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160324 YEAR OF FEE PAYMENT : 7
EP2405875 A1	20170222	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2405875 A1	20170428	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170222 YEAR OF FEE PAYMENT : 8
EP2405875 B1	20121212	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2406059 A1	20120118	LSPB	+	published / reissued	
EP2406059 A1	20120118	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110824
EP2406059 A1	20161207	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20161104
EP2406067 A2	20120118	LSPB	+	published / reissued	
EP2406067 A2	20120118	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110906
EP2406068 A2	20120118	LSPB	+	published / reissued	
EP2406068 A2	20120118	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20110824
EP2406068 A2	20150121	LSGT	+INTG	ANNOUNCEMENT OF INTENTION TO GRANT	EFFECTIVE DATE : 20150106
EP2406068 A2	20150617	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2406068 A2	20150630	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2406068 A2	20150715	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 731674 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150715
EP2406068 A2	20150729	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2406068 A2	20150730	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602010025279 COUNTRY OF REF DOCUMENT : DE

EP2406068 A2	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : NO NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150917
EP2406068 A2	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : FI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2406068 A2	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : HR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2406068 A2	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2406068 A2	20151115	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 731674 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150617
EP2406068 A2	20151125	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2406068 A2	20151130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LV NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2406068 A2	20151130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : GR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150918
EP2406068 A2	20151130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : BG NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150917
EP2406068 A2	20160129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : EE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2406068 A2	20160223	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR

REF COUNTRY CODE : FR
REF LEGAL EVENT CODE : PLFP
YEAR OF FEE PAYMENT : 7

EP2406068 A2	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CZ NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2406068 A2	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IS NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151017
EP2406068 A2	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2406068 A2	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : AT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2406068 A2	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : RO NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20150617
EP2406068 A2	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : PL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2406068 A2	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : ES NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2406068 A2	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : PT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20151019
EP2406068 A2	20160318	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602010025279 COUNTRY OF REF DOCUMENT : DE
EP2406068 A2	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : DK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617

EP2406068 A2	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2406068 A2	20160525	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20160318
EP2406068 A2	20160531	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160223 YEAR OF FEE PAYMENT : 7
EP2406068 A2	20160531	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160224 YEAR OF FEE PAYMENT : 7
EP2406068 A2	20160729	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160324 YEAR OF FEE PAYMENT : 7
EP2406068 A2	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : BE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160331
EP2406068 A2	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2406068 A2	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : MC NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2406068 A2	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LU NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160312
EP2406068 A2	20161031	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2406068 A2	20161228	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2406068 A2	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : BE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150617
EP2406068 A2	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160312
EP2406068 A2	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO	COUNTRY OF REF DOCUMENT : LI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160331

EP2406068 A2	20170131	LSLE	-PG25	EPO LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CH NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20160331
EP2406068 A2	20170222	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 8
EP2406068 A2	20170428	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170222 YEAR OF FEE PAYMENT : 8
EP2406068 B1	20150617	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2544644 A1	20130116	LSPB	+	published / reissued	
EP2544644 A1	20130116	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120925
EP2544644 A1	20140319	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20140212
EP2544644 A1	20150930	LSGT	+INTG	ANNOUNCEMENT OF INTENTION TO GRANT	EFFECTIVE DATE : 20150903
EP2544644 A1	20160316	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2544644 A1	20160331	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2544644 A1	20160406	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2544644 A1	20160415	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 780545 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160415
EP2544644 A1	20160428	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602010031226 COUNTRY OF REF DOCUMENT : DE
EP2544644 A1	20160725	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2544644 A1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : HR NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160316
EP2544644 A1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : NO NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160616
EP2544644 A1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : FI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE

				INFORM. FROM NAT. OFFICE TO EPO	TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160316
EP2544644 A1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160617
EP2544644 A1	20160815	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 780545 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160316
EP2544644 A1	20160817	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2544644 A1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160316
EP2544644 A1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160316
EP2544644 A1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160316
EP2544644 A1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160316
EP2544644 A1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160716
EP2544644 A1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160316
EP2544644 A1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE

				INFORM. FROM NAT. OFFICE TO EPO	TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160316
EP2544644 A1	20161031	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160830 YEAR OF FEE PAYMENT : 7
EP2544644 A1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160316
EP2544644 A1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160316
EP2544644 A1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160718
EP2544644 A1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160316
EP2544644 A1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160316
EP2544644 A1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160316
EP2544644 A1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160316
EP2544644 A1	20161130	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160817 YEAR OF FEE PAYMENT : 7
EP2544644 A1	20161219	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602010031226 COUNTRY OF REF DOCUMENT : DE
EP2544644 A1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE

				INFORM. FROM NAT. OFFICE TO EPO	TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160316
EP2544644 A1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : BE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160316
EP2544644 A1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : DK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160316
EP2544644 A1	20170131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160928 YEAR OF FEE PAYMENT : 7
EP2544644 A1	20170222	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20161219
EP2544644 A1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : BG NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160616
EP2544644 A1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : MC NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160316
EP2544644 A1	20170428	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2544644 B1	20160316	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2544645 A1	20130116	LSPB	+	published / reissued	
EP2544645 A1	20130116	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120925
EP2544645 A1	20140730	LSGT	+INTG	ANNOUNCEMENT OF INTENTION TO GRANT	EFFECTIVE DATE : 20140704
EP2544645 A1	20141217	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2544645 A1	20141231	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2544645 A1	20150114	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2544645 A1	20150115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 701324 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20150115
EP2544645 A1	20150129	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096

					REF DOCUMENT NUMBER : 602010021103 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20150129
EP2544645 A1	20150430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141217
EP2544645 A1	20150430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150317
EP2544645 A1	20150430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141217
EP2544645 A1	20150525	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2544645 A1	20150529	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141217
EP2544645 A1	20150529	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141217
EP2544645 A1	20150529	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150318
EP2544645 A1	20150529	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141217
EP2544645 A1	20150615	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 701324 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20141217
EP2544645 A1	20150630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO

				EPO	PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141217
EP2544645 A1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : EE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141217
EP2544645 A1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : RO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141217
EP2544645 A1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141217
EP2544645 A1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141217
EP2544645 A1	20150731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141217
EP2544645 A1	20150825	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2544645 A1	20150831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : PL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141217
EP2544645 A1	20150831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141217
EP2544645 A1	20150831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150417
EP2544645 A1	20150918	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602010021103 COUNTRY OF REF DOCUMENT : DE

EP2544645 A1	20151030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : DK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141217
EP2544645 A1	20151125	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20150918
EP2544645 A1	20151231	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141217
EP2544645 A1	20160129	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20150930 YEAR OF FEE PAYMENT : 6
EP2544645 A1	20160229	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141217
EP2544645 A1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : MC NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141217
EP2544645 A1	20160429	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LU NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20150910
EP2544645 A1	20160429	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP2544645 A1	20160531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : BE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141217
EP2544645 A1	20160629	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP2544645 A1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CH NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20150930
EP2544645 A1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20150910
EP2544645 A1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20150930

EP2544645 A1	20160817	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 7
EP2544645 A1	20161031	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160830 YEAR OF FEE PAYMENT : 7
EP2544645 A1	20161130	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160817 YEAR OF FEE PAYMENT : 7
EP2544645 A1	20170131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160928 YEAR OF FEE PAYMENT : 7
EP2544645 A1	20170331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : MT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20141217
EP2544645 B1	20141217	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2701647 A1	20140305	LSPB	+	published / reissued	
EP2701647 A1	20140305	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20130917
EP2701647 A1	20160323	LSGT	+INTG	ANNOUNCEMENT OF INTENTION TO GRANT	EFFECTIVE DATE : 20160223
EP2701647 A1	20160720	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2701647 A1	20160729	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2701647 A1	20160810	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2701647 A1	20160815	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 813423 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160815
EP2701647 A1	20160901	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602012020700 COUNTRY OF REF DOCUMENT : DE
EP2701647 A1	20161110	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2701647 A1	20161215	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 813423 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160720
EP2701647 A1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT	COUNTRY OF REF DOCUMENT : IS NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE

				INFORM. FROM NAT. OFFICE TO EPO	TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161120
EP2701647 A1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2701647 A1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : NO NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161020
EP2701647 A1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2701647 A1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2701647 A1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2701647 A1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2701647 A1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2701647 A1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LV NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2701647 A1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : AT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2701647 A1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING	COUNTRY OF REF DOCUMENT : GR

				STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161021
EP2701647 A1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : PL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2701647 A1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : ES NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2701647 A1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : PT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20161121
EP2701647 A1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : BE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2701647 A1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2701647 A1	20170313	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 6
EP2701647 A1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : RO NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2701647 A1	20170428	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : EE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160720
EP2701647 A1	20170428	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20170313 YEAR OF FEE PAYMENT : 6
EP2701647 B1	20160720	LSGT	+	granted / extensions (spc, cpc, pte)	
EP2701658 A1	20140305	LSPB	+	published / reissued	
EP2701658 A1	20140305	LSSES	+17P	REQUEST FOR EXAMINATION	EFFECTIVE DATE : 20130917

ES2401232 T3	20130417	LSGT	+	FILED granted / extensions (spc, cpc, pte)	
ES2420996 T3	20130828	LSGT	+	granted / extensions (spc, cpc, pte)	
IN06647DN2011 A	20130816	LSPB	+	published / reissued	
IN06813DN2011 A	20130201	LSPB	+	published / reissued	
IN07685DN2012 A	20140314	LSPB	+	published / reissued	
IN07710DN2012 A	20140314	LSPB	+	published / reissued	
IN08213DN2013 A	20141219	LSPB	+	published / reissued	
IN08251DN2013 A	20141219	LSPB	+	published / reissued	
JP2012519607 T2	20120830	LSPB	+	published / reissued	
JP2012519607 T2	20130613	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130612
JP2012519607 T2	20130812	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130809
JP2012519607 T2	20131207	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20131206
JP2012519607 T2	20140616	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20140613
JP2012519607 T2	20141027	LSWD	-A045	WRITTEN MEASURE OF DISMISSAL OF APPLICATION	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A045 EFFECTIVE DATE : 20141024
JP2012519608 T2	20120830	LSPB	+	published / reissued	
JP2012519608 T2	20121203	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20121130
JP2012519608 T2	20130228	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130227
JP2012519608 T2	20131202	LSRV	-A02	DECISION OF REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20131129
JP2012519609 T2	20120830	LSPB	+	published / reissued	
JP2012519609 T2	20121203	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20121130
JP2012519609 T2	20130326	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20130325
JP2012519609 T2	20140108	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20140107
JP2012519609 T2	20140508	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20140507
JP2012519609 T2	20141112	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2012519609 T2	20141117	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20141114

JP2012519609 T2	20141218	LSFE	+A61	REGISTRATION (UTILITY MODEL) FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20141210
JP2012519616 T2	20120830	LSPB	+	published / reissued	
JP2012519616 T2	20130527	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130524
JP2012519616 T2	20131021	LSRV	-A02	DECISION OF REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20131018
JP2013151163 A2	20130808	LSPB	+	published / reissued	
JP2013151163 A2	20140722	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20140718
JP2013151163 A2	20150427	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20150424
JP2013151163 A2	20150824	LSWD	-A045	WRITTEN MEASURE OF DISMISSAL OF APPLICATION	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A045 EFFECTIVE DATE : 20150821
JP2013522070 T2	20130613	LSPB	+	published / reissued	
JP2013522070 T2	20130930	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20130927
JP2013522070 T2	20140109	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20140108
JP2013522070 T2	20140714	LSRV	-A02	DECISION OF REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20140711
JP2014144646 A2	20140814	LSPB	+	published / reissued	
JP2014144646 A2	20150304	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20150303
JP2014144646 A2	20150602	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20150602
JP2014144646 A2	20151028	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20151027
JP2014144646 A2	20160212	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20160212
JP2014144646 A2	20160301	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A821 EFFECTIVE DATE : 20160212
JP2014144646 A2	20160427	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2014144646 A2	20160506	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20160506
JP2014144646 A2	20160609	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20160601
JP2014519422 T2	20140814	LSPB	+	published / reissued	
JP2014519422 T2	20141001	LSES	-A131	NOTIFICATION OF REASONS FOR	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131

				REFUSAL	EFFECTIVE DATE : 20140930
JP2014519422 T2	20150331	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20150331
JP2014519422 T2	20150805	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20150804
JP2014519422 T2	20160204	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20160204
JP2014519422 T2	20160728	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2014519422 T2	20160802	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20160802
JP2014519422 T2	20160908	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20160901
JP2014520213 T2	20140821	LSPB	+	published / reissued	
JP2014520213 T2	20141217	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20141216
JP2014520213 T2	20150612	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20150612
JP2014520213 T2	20151125	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20151124
JP2014520213 T2	20160419	LSRE	A521	WRITTEN AMENDMENT	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20160419
JP2014520213 T2	20160624	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP2014520213 T2	20160628	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20160628
JP2014520213 T2	20160901	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20160824
JP2016176172 A2	20161006	LSPB	+	published / reissued	
JP2016176172 A2	20161227	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	TEXT : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20161227
JP2016176172 A2	20170309	LSRE	A521	WRITTEN AMENDMENT	TEXT : JAPANESE INTERMEDIATE CODE: A523 EFFECTIVE DATE : 20170309
JP2017000799 A2	20170105	LSPB	+	published / reissued	
JP5666484 B2	20150212	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5946856 B2	20160706	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5996634 B2	20160921	LSGT	+	granted / extensions (spc, cpc, pte)	
JP6001644 B2	20161005	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101310561 B1	20130923	LSGT	+	granted /	

				extensions (spc, cpc, pte)
KR101310561 B1	20110909	LSES	A201	REQUEST FOR EXAMINATION
KR101310561 B1	20121211	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR101310561 B1	20130612	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT
KR101310561 B1	20130912	LSGT	+GRNT	WRITTEN DECISION TO GRANT
KR101356879 B1	20140128	LSGT	+	granted / extensions (spc, cpc, pte)
KR101356879 B1	20110905	LSES	A201	REQUEST FOR EXAMINATION
KR101356879 B1	20130624	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR101356879 B1	20131022	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT
KR101356879 B1	20140122	LSGT	+GRNT	WRITTEN DECISION TO GRANT
KR101356917 B1	20140128	LSGT	+	granted / extensions (spc, cpc, pte)
KR101356917 B1	20111031	LSES	A201	REQUEST FOR EXAMINATION
KR101356917 B1	20130627	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR101356917 B1	20131022	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT
KR101356917 B1	20140122	LSGT	+GRNT	WRITTEN DECISION TO GRANT
KR20110115159 A	20111020	LSPB	+	published / reissued
KR20110115159 A	20110907	LSES	A201	REQUEST FOR EXAMINATION
KR20110115159 A	20130520	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20110115159 A	20131001	LSRV	-E601	DECISION TO REFUSE APPLICATION
KR20110115171 A	20111020	LSPB	+	published / reissued
KR20110122175 A	20111109	LSPB	+	published / reissued
KR20110128181 A	20111128	LSPB	+	published / reissued
KR20120127636 A	20121122	LSPB	+	published / reissued
KR20120127636 A	20120906	LSES	A201	REQUEST FOR EXAMINATION
KR20120127636 A	20131218	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL
KR20120127636 A	20140522	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT
MX2011009176 A1	20110915	LSPB	+	published / reissued
MX2011009177 A1	20110915	LSPB	+	published / reissued
MX2011009180 A1	20110915	LSPB	+	published / reissued
MX2011009180 A1	20130322	LSGT	+FG	GRANT OR REGISTRATION
MX2011009623 A1	20110929	LSPB	+	published / reissued

MX2011009625 A1	20110929	LSPB	+	published / reissued	
MX2011009626 A1	20110929	LSPB	+	published / reissued	
MX2011009627 A1	20110929	LSPB	+	published / reissued	
MX2012010467 A1	20121003	LSPB	+	published / reissued	
MX2013011141 A1	20131030	LSPB	+	published / reissued	
MX2013011141 A1	20160314	LSGT	+FG	GRANT OR REGISTRATION	
MX2013011784 A1	20131101	LSPB	+	published / reissued	
MX2013011784 A1	20160314	LSGT	+FG	GRANT OR REGISTRATION	
MX337675 B	20160314	LSGT	+	granted / extensions (spc, cpc, pte)	
MX337693 B	20160314	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2011136192 A	20130420	LSPB	+	published / reissued	
RU2011136194 A	20130420	LSPB	+	published / reissued	
RU2011136742 A	20130420	LSPB	+	published / reissued	
RU2012137182 A	20140420	LSPB	+	published / reissued	
RU2012137182 A	20150610	LSWD	-FA94	ACKNOWLEDGEMENT OF APPLICATION WITHDRAWN (NON- PAYMENT OF FEES)	EFFECTIVE DATE : 20150403
RU2013122725 A	20141127	LSPB	+	published / reissued	
RU2013140360 A	20150310	LSPB	+	published / reissued	
RU2013140360 A	20150910	LSWD	-FA92	ACKNOWLEDGEMENT OF APPLICATION WITHDRAWN (LACK OF SUPPLEMENTARY MATERIALS SUBMITTED)	EFFECTIVE DATE : 20150817
RU2013143723 A	20150610	LSPB	+	published / reissued	
RU2480193 C1	20130427	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2480193 C1	20141220	LSLE	-MM4A	THE PATENT IS INVALID DUE TO NON-PAYMENT OF FEES	EFFECTIVE DATE : 20140312
RU2483928 C2	20130610	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2483928 C2	20161110	LSLE	-MM4A	THE PATENT IS INVALID DUE TO NON-PAYMENT OF FEES	EFFECTIVE DATE : 20160313
RU2492053 C2	20130910	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2492053 C2	20161110	LSLE	-MM4A	THE PATENT IS INVALID DUE TO NON-PAYMENT OF FEES	EFFECTIVE DATE : 20160313
RU2505402 C2	20140127	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2505402 C2	20151110	LSLE	-MM4A	THE PATENT IS INVALID DUE TO NON-PAYMENT OF FEES	EFFECTIVE DATE : 20150312
RU2552435 C2	20150610	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2552435 C2	20161110	LSLE	-MM4A	THE PATENT IS INVALID DUE TO NON-PAYMENT OF	EFFECTIVE DATE : 20160313

FEES					
RU2576013 C2	20160227	LSGT	+	granted / extensions (spc, cpc, pte)	
SG173725 A1	20110929	LSPB	+	published / reissued	
SG173726 A1	20110929	LSPB	+	published / reissued	
SG174299 A1	20111028	LSPB	+	published / reissued	
US2010230857 AA	20100916	LSPB	+	published / reissued	
US2010230858 AA	20100916	LSPB	+	published / reissued	
US2010230858 AA	20100504	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STONE, KEITH JOSEPH; YOUNG, ROGER DALE; REEL/FRAME:024334/0540 EFFECTIVE DATE : 20100323
US2010230866 AA	20100916	LSPB	+	published / reissued	
US2010230867 AA	20100916	LSPB	+	published / reissued	
US2010230867 AA	20100518	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:GRAY, BRIAN FRANCIS; STONE, KEITH JOSEPH; VAN VALKENBURG, CURTIS HUNTER; AND OTHERS; SIGNING DATES FROM 20100323 TO 20100405; REEL/FRAME:024405/0479
US2010233428 AA	20100916	LSPB	+	published / reissued	
US2010233428 AA	20100519	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STONE, KEITH JOSEPH; YOUNG, ROGER DALE; REEL/FRAME:024412/0939 EFFECTIVE DATE : 20100323
US2010233438 AA	20100916	LSPB	+	published / reissued	
US2010233438 AA	20100504	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STONE, KEITH JOSEPH; YOUNG, ROGER DALE; REEL/FRAME:024331/0556 EFFECTIVE DATE : 20100323
US2010233439 AA	20100916	LSPB	+	published / reissued	
US2010233439 AA	20100504	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STONE, KEITH JOSEPH; YOUNG, ROGER DALE; REEL/FRAME:024334/0605 EFFECTIVE DATE : 20100323
US2011221094 AA	20110915	LSPB	+	published / reissued	
US2011223388 AA	20110915	LSPB	+	published / reissued	
US2011223388 AA	20101115	LSAS	AS	ASSIGNMENT	OWNER NAME : THE PROCTER AND GAMBLE COMPANY, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STONE, KEITH JOSEPH; YOUNG, ROGER DALE; REEL/FRAME:025362/0098

US2012064280 AA	20120315	LSPB	+	published / reissued	
US2012064280 AA	20110526	LSAS	AS	ASSIGNMENT	OWNER NAME : THE PROCTER AND GAMBLE COMPANY, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HAMMONS, JOHN LEE; ORR, JILL MARLENE; CURRO, JOHN JOSEPH; AND OTHERS; SIGNING DATES FROM 20110509 TO 20110524; REEL/FRAME:026342/0723
US2012064298 AA	20120315	LSPB	+	published / reissued	
US2012064298 AA	20110526	LSAS	AS	ASSIGNMENT	OWNER NAME : THE PROCTER AND GAMBLE COMPANY, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ORR, JILL MARLENE; LAKE, KIRK WALLACE; CURRO, JOHN JOSEPH; AND OTHERS; SIGNING DATES FROM 20110509 TO 20110524; REEL/FRAME:026342/0740
US2012248649 AA	20121004	LSPB	+	published / reissued	
US2013214459 AA	20130822	LSPB	+	published / reissued	
US2013221582 AA	20130829	LSPB	+	published / reissued	
US2014057062 AA	20140227	LSPB	+	published / reissued	
US2014239537 AA	20140828	LSPB	+	published / reissued	
US2014239537 AA	20140515	LSAS	AS	ASSIGNMENT	OWNER NAME : THE PROCTER AND GAMBLE COMPANY, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:MULLANE, TIMOTHY IAN; REEL/FRAME:032903/0158 EFFECTIVE DATE : 20140507
US2015337498 AA	20151126	LSPB	+	published / reissued	
US2016083880 AA	20160324	LSPB	+	published / reissued	
US2016318236 AA	20161103	LSPB	+	published / reissued	
US8206628 BB	20120626	LSGT	+	granted / extensions (spc, cpc, pte)	
US8206628 BB	20100504	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STONE, KEITH JOSEPH; YOUNG, ROGER DALE; REEL/FRAME:024334/0540 EFFECTIVE DATE : 20100323
US8206628 BB	20120606	LSGT	PAT1	Patented Case	
US8206628 BB	20151124	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8557169 BB	20131015	LSGT	+	granted / extensions (spc, cpc, pte)	
US8557169 BB	20101122	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : THE PROCTER & GAMBLE COMPANY, OHIO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:GROSS, SARAH BETH; COE, RICHARD GEORGE; GILBERTSON, GARY WAYNE; AND OTHERS; SIGNING DATES FROM 20101115 TO 20101118; REEL/FRAME:025393/0030
US8557169 BB	20130925	LSGT	PAT1	Patented Case	

US8557169 BB	20170330	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8585951 BB	20131119	LSGT	+	granted / extensions (spc, cpc, pte)	
US8585951 BB	20100504	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PROCTER & GAMBLE COMPANY, THE, OHIO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MUHS, KEVIN GERARD; COE, RICHARD GEORGE; STONE, KEITH JOSEPH; AND OTHERS; SIGNING DATES FROM 20100323 TO 20100326; REEL/FRAME:024334/0544
US8585951 BB	20131030	LSGT	PAT1	Patented Case	
US8585951 BB	20170504	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8585958 BB	20131119	LSGT	+	granted / extensions (spc, cpc, pte)	
US8585958 BB	20100518	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : PROCTER & GAMBLE COMPANY, THE, OHIO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:GRAY, BRIAN FRANCIS; GROSS, SARAH BETH; VAN VALKENBURG, CURTIS HUNTER; AND OTHERS; SIGNING DATES FROM 20100323 TO 20100405; REEL/FRAME:024405/0456
US8585958 BB	20131030	LSGT	PAT1	Patented Case	
US8585958 BB	20170504	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US8613995 BB	20131224	LSGT	+	granted / extensions (spc, cpc, pte)	
US8613995 BB	20100504	LSAS	AS	ASSIGNMENT	OWNER NAME : PROCTER AND GAMBLE COMPANY, THE, OHIO DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:STONE, KEITH JOSEPH; YOUNG, ROGER DALE; REEL/FRAME:024331/0556 EFFECTIVE DATE : 20100323
US8613995 BB	20131204	LSGT	PAT1	Patented Case	
US8926890 BB	20150106	LSGT	+	granted / extensions (spc, cpc, pte)	
US8926890 BB	20141217	LSGT	PAT1	Patented Case	
US8940384 BB	20150127	LSGT	+	granted / extensions (spc, cpc, pte)	
US8940384 BB	20150107	LSGT	PAT1	Patented Case	
US8940384 BB	20150901	LSRE	CC	CERTIFICATE OF CORRECTION	
US8968631 BB	20150303	LSGT	+	granted / extensions (spc, cpc, pte)	
US8968631 BB	20150211	LSGT	PAT1	Patented Case	
US8986584 BB	20150324	LSGT	+	granted / extensions (spc, cpc, pte)	
US8986584 BB	20150304	LSGT	PAT1	Patented Case	
US9012014 BB	20150421	LSGT	+	granted / extensions (spc, cpc, pte)	
US9012014 BB	20150401	LSGT	PAT1	Patented Case	
US9017592 BB	20150428	LSGT	+	granted / extensions (spc, cpc, pte)	
US9017592 BB	20150408	LSGT	PAT1	Patented Case	
US9067357 BB	20150630	LSGT	+	granted /	

US9067357 BB	20150610	LSGT	PAT1	extensions (spc, cpc, pte) Patented Case	
US9079324 BB	20150714	LSGT	+	granted / extensions (spc, cpc, pte)	
US9079324 BB	20150624	LSGT	PAT1	Patented Case	
US9220638 BB	20151229	LSGT	+	granted / extensions (spc, cpc, pte)	
US9220638 BB	20151209	LSGT	PAT1	Patented Case	
US9271879 BB	20160301	LSGT	+	granted / extensions (spc, cpc, pte)	
US9271879 BB	20150806	LSFE	+PPV1	Publications -- Issue Fee Payment Verified	
US9415538 BB	20160816	LSGT	+	granted / extensions (spc, cpc, pte)	
US9415538 BB	20160407	LSES	+NAM1	Notice of Allowance Mailed -- Application Received in Office of Publications	
US9623602 BB	20170418	LSGT	+	granted / extensions (spc, cpc, pte)	
US9623602 BB	20170329	LSGT	PAT1	Patented Case	
WO10104996 A1	20100916	LSPB	+	published / reissued	
WO10104996 A1	20110829	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 214864 COUNTRY OF REF DOCUMENT : IL
WO10104996 A1	20110905	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2011553173 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A
WO10104996 A1	20110905	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011553173 COUNTRY OF REF DOCUMENT : JP
WO10104996 A1	20110909	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20117021223 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A
WO10104996 A1	20110912	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010224113 COUNTRY OF REF DOCUMENT : AU
WO10104996 A1	20110913	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO10104996 A1	20110913	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2755269 COUNTRY OF REF DOCUMENT : CA
WO10104996 A1	20111006	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2010224113 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20100311 KIND CODE OF REF DOCUMENT : A
WO10104996 A1	20111013	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2011136742 COUNTRY OF REF DOCUMENT : RU KIND CODE OF REF DOCUMENT : A
WO10104996 A1	20160315	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : P11009231 COUNTRY OF REF DOCUMENT

: BR
KIND CODE OF REF
DOCUMENT : A2
EFFECTIVE DATE : 20110902

WO10105002 A1	20100916	LSPB	+	published / reissued	
WO10105002 A1	20110908	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2011554173 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A
WO10105002 A1	20110908	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011554173 COUNTRY OF REF DOCUMENT : JP
WO10105002 A1	20110913	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO10105002 A1	20160322	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : P11012596 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 EFFECTIVE DATE : 20110913
WO10105009 A1	20100916	LSPB	+	published / reissued	
WO10105009 A1	20110908	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2011554177 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A
WO10105009 A1	20110908	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011554177 COUNTRY OF REF DOCUMENT : JP
WO10105009 A1	20110913	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO10105009 A1	20160223	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : P11007833 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 EFFECTIVE DATE : 20110829
WO10105017 A1	20100916	LSPB	+	published / reissued	
WO10105017 A1	20110907	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20117020931 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A
WO10105017 A1	20110908	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2011554183 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A
WO10105017 A1	20110908	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011554183 COUNTRY OF REF DOCUMENT : JP
WO10105017 A1	20110913	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO10105017 A1	20110913	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2755277 COUNTRY OF REF DOCUMENT : CA
WO10105017 A1	20111013	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2011136193 COUNTRY OF REF DOCUMENT : RU KIND CODE OF REF DOCUMENT : A

WO10105017 A1	20160322	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : P11012597 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 EFFECTIVE DATE : 20110913
WO10105019 A1	20100916	LSPB	+	published / reissued	
WO10105019 A1	20110908	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2011554185 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A
WO10105019 A1	20110908	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2011554185 COUNTRY OF REF DOCUMENT : JP
WO10105019 A1	20110913	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO10105019 A1	20160322	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : P11012595 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 EFFECTIVE DATE : 20110913
WO10105122 A2	20100916	LSPB	+	published / reissued	
WO10105122 A2	20110906	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2011553174 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A
WO10105122 A2	20110909	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2755119 COUNTRY OF REF DOCUMENT : CA
WO10105122 A2	20110912	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2010224056 COUNTRY OF REF DOCUMENT : AU
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ZA201105988 A	20130130	LSGT	+	granted / extensions (spc, cpc, pte)	
ZA201106188 A	20130130	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: METHOD OF INDIRECT APPLICATION OF FROTHED CHEMISTRY TO A SUBSTRATE

Abstract: Source: US2012160400A Substrates such as tissue and nonwovens have an additive composition applied topically thereto. The additive composition, for instance, comprises a frothed aqueous dispersion or solution which is topically applied to the web through a creping process after the web has been formed. The additive composition may be applied in-line to the web as a creping adhesive during a creping operation. In the alternative, the additive composition may be added in an off-line converting process that crepes a dry pre-formed substrate material. The additive composition may improve bulk and softness of the tissue.

Classifications:

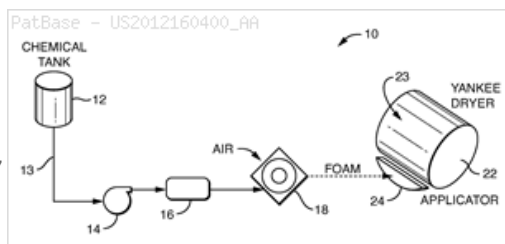
International (IPC 8-9): A61F13/15 A61F13/472 A61F13/49

A61F13/51 A61F13/514 A61F13/53 A61F13/84 A61K8/02 A61K8/04 A61K9/70 A61L15/22 A61L15/26 A61L15/42 A61L15/44 A61L15/46 B31F1/12 B32B27/12 B32B29/06 B32B3/10 B32B37/02 B32B37/12 B32B37/14 B32B38/00 B32B38/10 B32B5/02 B32B5/20 B32B5/24 D01F1/10 D04H1/413 D04H1/425 D04H1/4258 D04H1/4291 D04H1/4382 D04H1/46 D04H1/492 D04H1/498 D04H1/56 D04H1/587 D04H1/64 D04H1/68 D04H1/72 D04H1/76 D04H11/00 D04H13/00 D04H3/08 D04H3/16 D04H5/03 D06M14/02 D06M15/21 D06M15/227 D06M15/263 D06M15/59 D06M17/00 D06M23/06 D06M23/12 D21F11/00 D21H21/14 (Advanced/Invention)

CPC: D04H5/03 D04H1/68 B32B5/02 B32B5/26 B32B7/04 B32B2250/02 B32B2262/0223 B32B2262/0269 B32B2262/04 B32B2262/062 B32B2262/067 A61F13/8405 B32B37/12 B32B38/145 B32B2305/20 B32B2307/51 B32B2307/75 B32B2555/00 D04H1/498 D04H13/007 A61F13/51113 A61F13/51405 D04H1/492 B31F1/14 D04H11/00 D04H3/08 D21F11/002 A61K8/8111 A61Q19/00 A61Q19/10 A61K8/39 A61K8/96 D06M15/21 D06M23/12 D04H1/4326 D04H1/488 D04H1/552 D04H1/413 D04H1/72 A61K9/70 A61L15/24 A61F13/472 A61F13/49 A61F13/5116 A61F13/513 A61F13/52 A61F13/537 A61F13/53743 A61F2013/51059 A61F2013/51061 A61F2013/51117 A61F2013/51186 A61F2013/51338 A61F13/51121 D06M15/227 D06M15/263 D21H27/002 D21H27/005 A61K8/0208 A61K8/025 A61K8/027 A61K8/046 A61K2800/412 B32B5/022 B32B5/20 B32B2555/02 A61L15/22 A61F13/15 A61F13/51 A61F13/53 B32B3/10 D04H1/64 Y10T428/24446 Y10T428/24455 Y10T442/674 Y10T428/249924 Y10T442/681 Y10T442/689 Y10T428/23929 Y10T442/20 Y10T442/2139 Y10T442/277 D21H21/146 B31F1/12 D06M15/59 D10B2509/026 B32B5/245 A61F13/51401 D04H1/56 D04H1/587 B32B27/12 B32B2262/0253 B32B2307/726 D04H3/16 D06M23/06 D06M15/233 D06M23/04 D06N3/0029 D06N3/0047 D06N2205/023 D06N2205/045 D04H1/76 D04H1/4291 D04H13/00 D06M13/17 D06N3/0045

European: B31F1/14 B32B5/02 B32B5/02A B32B5/20 B32B5/24A B32B5/26 B32B7/04 D04H1/68 D04H5/03 L32B250/02 L32B262/02D L32B262/02J1 L32B262/04 L32B262/06A L32B262/06A2 L32B555/02

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**Family:**

Publication number	Publication date	Application number	Application date
AU2011350703 AA	20120705	AU20110350703	20111221
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AU2013264859 AA	20131128	AU20130264859	20130409
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AU2013365884 AA	20140626	AU20130365884	20131121
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Priority:

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Agent(s): FREEHILLS PATENT ATTORNEYS; SPRUSON AND FERGUSON; MADDERNS PATENT AND TRADE MARK ATTORNEYS; ZIMMERMANN AND PARTNER; MABEY KATHERINE FRANCES; DAVIES CHRISTOPHER ROBERT; KENYA T; DENISE L; PIERRE KENYA THACKER ET AL; FIELDHACK RANDALL W ET AL; STOKER DENISE L ET AL; CASSIDY TIMOTHY A 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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU2011350703 AA	20120705	LSPB	+	published / reissued	
AU2011350703 AA	20170427	LSLE	-MK5	APPLICATION LAPSED SECTION 142(2)(E) - PATENT REQUEST AND COMPL. SPECIFICATION NOT ACCEPTED	
AU2011350704 AA	20120705	LSPB	+	published / reissued	
AU2011350704 AA	20151224	LSLE	-MK1	APPLICATION LAPSED SECTION 142(2)(A) - NO REQUEST FOR EXAMINATION IN RELEVANT PERIOD	
AU2013264859 AA	20131128	LSPB	+	published / reissued	
AU2013264859 AA	20160922	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD	

AU2013264859 BB	20160526	LSGT	+	PATENT) granted / extensions (spc, cpc, pte)	
AU2013365884 AA	20140626	LSPB	+	published / reissued	
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AU2014369303 AA	20150625	LSPB	+	published / reissued	
AU2017202144 AA	20170420	LSPB	+	published / reissued	
BR112013016334 A2	20161004	LSPB	+	published / reissued	
BR112013016334 A2	20170207	LSFE	-B08F	APPLICATION FEES: DISMISSAL - ARTICLE 86 OF INDUSTRIAL PROPERTY LAW	
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BR112013016534 A2	20160920	LSPB	+	published / reissued	
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CN103270213 B	20150701	LSGT	+	granted / extensions (spc, cpc, pte)	
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CN105793481 A	20160720	LSPB	+C06	PUBLICATION	
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EP2659059 A2	20160831	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : D06M 15/21 20060101ALI20160725BHEP
EP2659059 A2	20160831	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : D04H 1/68 20120101ALI20160725BHEP
EP2659059 A2	20160831	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : D04H 1/76 20120101ALI20160725BHEP
EP2659059 A2	20160831	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : D06M 14/02 20060101ALI20160725BHEP
EP2659059 A2	20160831	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : D06M 17/00 20060101AFI20160725BHEP
EP2935689 A1	20151028	LSPB	+	published / reissued	
EP2935689 A1	20151028	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20150708
EP2935689 A1	20160831	LSES	+A4	DESPATCH OF SUPPLEMENTARY SEARCH REPORT	EFFECTIVE DATE : 20160728
EP2935689 A1	20160831	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : D06M 23/12 20060101ALI20160722BHEP
EP2935689 A1	20160831	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : D06M 15/21 20060101AFI20160722BHEP
EP2935689 A1	20160831	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : D04H 13/00 20060101ALI20160722BHEP
EP2935689 A1	20170510	LSGT	+INTG	ANNOUNCEMENT OF INTENTION TO GRANT	EFFECTIVE DATE : 20170418
EP3080345 A1	20161019	LSPB	+	published / reissued	
EP3080345 A1	20161019	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20160711
EP3084056 A1	20161026	LSPB	+	published / reissued	
EP3084056 A1	20161026	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20160713
GB2515977 A1	20150107	LSPB	+	published / reissued	
KR20130133221 A	20131206	LSPB	+	published / reissued	
KR20130133221 A	20161122	LSES	A201	REQUEST FOR EXAMINATION	
KR20130137008 A	20131213	LSPB	+	published / reissued	

KR20130137008 A	20170122	LSDW	-WITN	WITHDRAWAL DUE TO NO REQUEST FOR EXAMINATION	
KR20150013552 A	20150205	LSPB	+	published / reissued	
KR20150096442 A	20150824	LSPB	+	published / reissued	
KR20160098309 A	20160818	LSPB	+	published / reissued	
KR20160098361 A	20160818	LSPB	+	published / reissued	
MX2013007110 A1	20130815	LSPB	+	published / reissued	
MX2013007110 A1	20150717	LSGT	+FG	GRANT OR REGISTRATION	
MX2013007111 A1	20130815	LSPB	+	published / reissued	
MX2014013948 A1	20150217	LSPB	+	published / reissued	
MX2015007369 A1	20151014	LSPB	+	published / reissued	
MX2016007363 A1	20160819	LSPB	+	published / reissued	
MX2016007471 A1	20160803	LSPB	+	published / reissued	
RU2013133791 A	20150210	LSPB	+	published / reissued	
RU2014149680 A	20160720	LSPB	+	published / reissued	
RU2015126267 A	20170117	LSPB	+	published / reissued	
RU2575263 C2	20160220	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2615704 C2	20170406	LSGT	+	granted / extensions (spc, cpc, pte)	
US2012160400 AA	20120628	LSPB	+	published / reissued	
US2012160400 AA	20110217	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:CALEWARTS, DEBORAH JOY; QIN, JIAN; JURENA, JEFFREY F; AND OTHERS; SIGNING DATES FROM 20101229 TO 20110105; REEL/FRAME:025821/0956
US2012160400 AA	20150203	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK WORLDWIDE, INC.; REEL/FRAME:034880/0634 EFFECTIVE DATE : 20150101
US2012160400 AA	20161019	LSWD	-ABD1	Abandoned -- After Examiner's Answer or Board of Appeals Decision	
US2012164200 AA	20120628	LSPB	+	published / reissued	
US2012164200 AA	20111220	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:QIN, JIAN; CALEWARTS, DEBORAH J.; JURENA, JEFFREY F.; AND OTHERS; SIGNING DATES FROM 20111209 TO 20111212; REEL/FRAME:027473/0211
US2012214373 AA	20120823	LSPB	+	published / reissued	
US2012214373 AA	20150203	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK

					WORLDWIDE, INC.; REEL/FRA:034880/0634 EFFECTIVE DATE : 20150101
US2012214373 AA	20170511	LSAL	BDR1	Board of Appeals Decision Rendered	
US2012289917 AA	20121115	LSPB	+	published / reissued	
US2012289917 AA	20120529	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ABUTO, FRANK P.; CALEWARTS, DEBORAH J.; DAY, JENNY L.; AND OTHERS; SIGNING DATES FROM 20120507 TO 20120523; REEL/FRA:028278/0538
US2012289917 AA	20150203	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK WORLDWIDE, INC.; REEL/FRA:034880/0634 EFFECTIVE DATE : 20150101
US2012289917 AA	20170320	LSWD	-ABD1	Abandoned -- After Examiner's Answer or Board of Appeals Decision	
US2013157012 AA	20130620	LSPB	+	published / reissued	
US2013157012 AA	20130114	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:QIN, JIAN; ABUTO, FRANCIS P.; CALEWARTS, DEBORAH J.; AND OTHERS; SIGNING DATES FROM 20121214 TO 20130109; REEL/FRA:029621/0508
US2013157012 AA	20150203	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK WORLDWIDE, INC.; REEL/FRA:034880/0634 EFFECTIVE DATE : 20150101
US2013157012 AA	20161215	LSAL	ABE1	Appeal Brief (or Supplemental Brief) Entered and Forwarded to Examiner	
US2013157537 AA	20130620	LSPB	+	published / reissued	
US2013157537 AA	20111220	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:JACKSON, DAVID M.; WALDROUP, DONALD E.; DESAI, KEYUR M.; AND OTHERS; SIGNING DATES FROM 20111208 TO 20111212; REEL/FRA:027956/0226
US2013157537 AA	20120322	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:JACKSON, DAVID M.; WALDROUP, DONALD E.; DESAI, KEYUR M.; AND OTHERS; SIGNING DATES FROM 20111208 TO 20111212; REEL/FRA:027911/0671
US2013157537 AA	20140825	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2014099469 AA	20140410	LSPB	+	published / reissued	
US2014099469 AA	20131213	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:ABUTO, FRANK PAUL;

					DAY, VIRGINIA LEE; STERLING, RAY A.; ANDOTHERS; SIGNING DATES FROM 20131203 TO 20131205; REEL/FRAME:031781/0514
US2014099469 AA	20150203	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK WORLDWIDE, INC.; REEL/FRAME:034880/0634 EFFECTIVE DATE : 20150101
US2014102650 AA	20140417	LSPB	+	published / reissued	
US2014102650 AA	20131217	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:QIN, JIAN; WALDROUP, DONALD EUGENE; CALEWARTS, DEBORAH JOY; AND OTHERS; SIGNING DATES FROM 20131212 TO 20131216; REEL/FRAME:031803/0124
US2014102650 AA	20150203	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK WORLDWIDE, INC.; REEL/FRAME:034880/0634 EFFECTIVE DATE : 20150101
US2015140273 AA	20150521	LSPB	+	published / reissued	
US2015140273 AA	20150203	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK WORLDWIDE, INC.; REEL/FRAME:034880/0634 EFFECTIVE DATE : 20150101
US2015140273 AA	20170411	LSES	NFA1	Non Final Action Mailed	
US8916012 BB	20141223	LSGT	+	granted / extensions (spc, cpc, pte)	
US8916012 BB	20141203	LSGT	PAT1	Patented Case	
US8916012 BB	20150203	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK WORLDWIDE, INC.; REEL/FRAME:034880/0674 EFFECTIVE DATE : 20150101
WO12090129 A2	20120705	LSPB	+	published / reissued	
WO12090129 A3	20130620	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2011350703 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20111221 KIND CODE OF REF DOCUMENT : A
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WO12090129 A3	20130628	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12090129 A3	20130729	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2013133791 COUNTRY OF REF DOCUMENT : RU KIND CODE OF REF DOCUMENT : A
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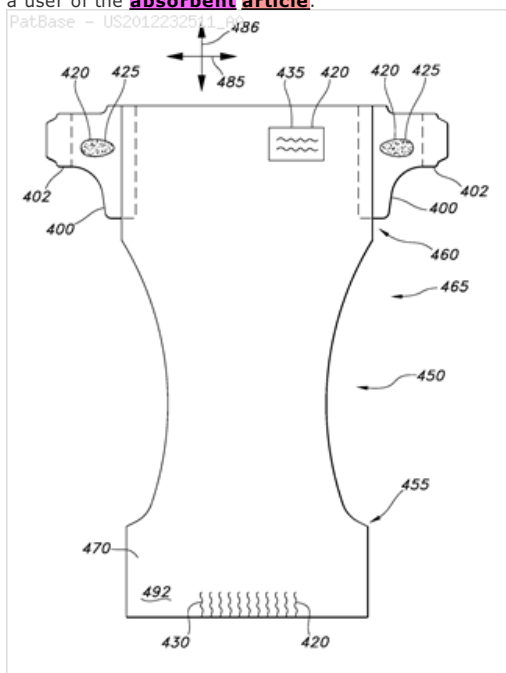
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A2
EFFECTIVE DATE : 20130625

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WO12090130 A3	20130628	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO12090130 A3	20160920	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 112013016534 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 EFFECTIVE DATE : 20130627
WO13175322 A1	20131128	LSPB	+	published / reissued	
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WO13175322 A1	20141119	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20147032414 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A
WO13175322 A1	20141120	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2013264859 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20130409 KIND CODE OF REF DOCUMENT : A
WO13175322 A1	20141125	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO13175322 A1	20141225	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2014149680 COUNTRY OF REF DOCUMENT : RU KIND CODE OF REF DOCUMENT : A
WO13175322 A1	20150617	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 13794772 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1
WO14097017 A1	20140626	LSPB	+	published / reissued	
WO14097017 A1	20150618	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO14097017 A1	20150701	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2015126267 COUNTRY OF REF DOCUMENT : RU KIND CODE OF REF DOCUMENT : A
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				NATIONAL PHASE IN:	20157018002 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A
WO14097017 A1	20150709	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2013365884 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20131121 KIND CODE OF REF DOCUMENT : A
WO15087215 A1	20150618	LSPB	+	published / reissued	
WO15087215 A1	20160613	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO15087215 A1	20160701	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2016126504 COUNTRY OF REF DOCUMENT : RU KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO15087215 A1	20160706	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20167018160 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO15087215 A1	20160707	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2014363016 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20141204 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO15092596 A1	20150625	LSPB	+	published / reissued	
WO15092596 A1	20160617	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO15092596 A1	20160708	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2016127572 COUNTRY OF REF DOCUMENT : RU KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO15092596 A1	20160712	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20167018689 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO15092596 A1	20160721	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2014369303 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20141204 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :

Abstract: Source: US2012232511A An **absorbent article**, for example, a diaper, a training pant, a swimming pant, or a feminine care **article**, and so forth, includes a topsheet, which forms a body-facing surface of the **absorbent article**, a backsheet disposed distally from the topsheet, which forms a garment-facing surface of the **absorbent article**, an **absorbent** core positioned between the topsheet and the backsheet, and a heat-activatable **expandable** treatment on the garment-facing surface. The heat-activatable **expandable** treatment is present on the garment-facing surface in a visually distinctive shape or pattern and provides visual and/or tactile cues to a user of the **absorbent article**.

US: 29/428 604/367 604/372 604/385.01



Publication number	Publication date	Application number	Application date
AU2012228017 AA	20120920	AU20120228017	20120220
AU2012228017 BB	20141211	AU20120228017	20120220
BR112013022411 A2	20161213	BR20131122411	20120220
CN103415274 A	20131127	CN201280012846	20120220
CN103415274 B	20160323	CN201280012846	20120220
GB201315255 A0	20131009	GB20130015255	20120220
GB2502478 A1	20131127	GB20130015255	20120220
KR101500893 B1	20150309	KR20137026390	20120220
KR20140009455 A	20140122	KR20137026390	20120220
MX2013010405 A1	20140430	MX20130010405	20120220
RU2013143234 A	20150420	RU20130143234	20120220
RU2564597 C2	20151010	RU20130143234	20120220
US2012232511 AA	20120913	US20110046135	20110311
US8740869 BB	20140603	US20110046135	20110311
WO12123831 A2	20120920	WO2012IB50769	20120220
WO12123831 A3	20121115	WO2012IB50769	20120220

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 QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TI TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Details

AU2012228017 AA	20120920	LSPB	+	published / reissued	
AU2012228017 AA	20150409	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2012228017 BB	20141211	LSGT	+	granted / extensions (spc, cpc, pte)	
BR112013022411 A2	20161213	LSPB	+	published / reissued	
CN103415274 A	20131127	LSPB	+	published / reissued	
CN103415274 A	20131127	LSPB	+C06	PUBLICATION	
CN103415274 A	20160323	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN103415274 B	20160323	LSGT	+	granted / extensions (spc, cpc, pte)	
GB2502478 A1	20131127	LSPB	+	published / reissued	
KR101500893 B1	20150309	LSGT	+	granted / extensions (spc, cpc, pte)	
KR20140009455 A	20140122	LSPB	+	published / reissued	
KR20140009455 A	20140801	LSES	A201	REQUEST FOR EXAMINATION	
KR20140009455 A	20141013	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR20140009455 A	20150116	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR20140009455 A	20150303	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
MX2013010405 A1	20140430	LSPB	+	published / reissued	
MX2013010405 A1	20151015	LSGT	+FG	GRANT OR REGISTRATION	
RU2013143234 A	20150420	LSPB	+	published / reissued	
RU2564597 C2	20151010	LSGT	+	granted / extensions (spc, cpc, pte)	
US2012232511 AA	20120913	LSPB	+	published / reissued	
US2012232511 AA	20110322	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:VELAZQUEZ, HERB; FLICKER, TOM; MCDONALD, DUANE; AND OTHERS; SIGNING DATES FROM 20110309 TO 20110314; REEL/FRAME:026009/0666
US8740869 BB	20140603	LSGT	+	granted / extensions (spc, cpc, pte)	
US8740869 BB	20140514	LSGT	PAT1	Patented Case	
US8740869 BB	20150203	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK WORLDWIDE, INC.; REEL/FRAME:034880/0674 EFFECTIVE DATE : 20150101
WO12123831 A2	20120920	LSPB	+	published / reissued	
WO12123831 A2	20130828	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	TEXT : PCT FILING DATE = 20120220 REF DOCUMENT NUMBER : 1315255 COUNTRY OF REF DOCUMENT : GB KIND CODE OF REF DOCUMENT : A

DESIGNATED STATE(S) :					
WO12123831 A2	20130828	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1315255.8 COUNTRY OF REF DOCUMENT : GB
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WO12123831 A2	20130912	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2012228017 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20120220 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12123831 A2	20131007	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20137026390 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12123831 A2	20131011	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2013143234 COUNTRY OF REF DOCUMENT : RU KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO12123831 A2	20140409	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 12757706 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) :
WO12123831 A2	20161213	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 112013022411 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20130902

Title: SYSTEM FOR DETECTION AND MONITORING OF BODY EXUDATES USING A GAS EMITTING SUBSTANCE FOR USE IN INTERACTIVE TOILET TRAINING

Abstract: Source: US2013110064A A system for detection and monitoring of body exudates includes an **absorbent article** and at least one gas emitting substance incorporated within the **absorbent article** that can emit a gas after a liquid insult. After an insult, a device incorporating at least one gas sensitive composition can detect the gas and signal that an insult has occurred. The gas may also be detected by a non-contact gas sensor linked to a controller and signaling device which can send visual, auditory, and/or vibratory alerts. The alerts may be perceptible in an area outside the wearer's clothing or at a remote location, such as a watch, radio, computer device and/or smart phone. The system can also determine the fullness of an **absorbent article** and monitor dry time. The system can be used for interactive toilet training or for caring for an infant, a disabled person, an incontinent youth, or an elderly person.

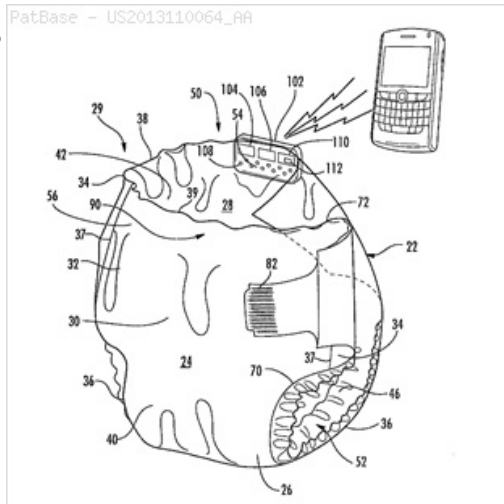
Classifications:

International (IPC 8-9): A61F13/15 A61F13/42 A61F13/49 A61L15/56 G08B1/08 G08B21/20 G08B23/00 (Advanced/Invention);

A61F13/20 A61F5/48 (Advanced/Non-invention)

CPC: A61F2013/425 A61F2013/422 A61L15/56 A61F13/42 A61F13/49

US: 128/885 340/539.11 340/573.5 604/361 604/385.01



Family:

Publication number	Publication date	Application number	Application date
AU2012328091 AA	20130502	AU20120328091	20120924
AU2012328091 BB	20161027	AU20120328091	20120924
BR112014008842 A2	20170425	BR20141108842	20120924
CN103889381 A	20140625	CN201280051932	20120924
CN103889381 B	20160824	CN201280051932	20120924
CO6950465 A2	20140520	CO20140090452	20140428
EP2770966 A1	20140903	EP20120843465	20120924
EP2770966 A4	20150610	EP20120843465	20120924
KR20140084058 A	20140704	KR20147010798	20120924
RU2014119894 A	20151210	RU20140119894	20120924
RU2614589 C2	20170328	RU20140119894	20120924
US2013110064 AA	20130502	US20110283669	20111028
US8816149 BB	20140826	US20110283669	20111028
WO13061180 A1	20130502	WO20121855077	20120924

Priority:

US20110283669 20111028 WO20121855077 20120924

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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 ZA ZM ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU2012328091 AA	20130502	LSPB	+	published / reissued	
AU2012328091 AA	20170223	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2012328091 BB	20161027	LSGT	+	granted / extensions (spc,	

BR112014008842 A2	20170425	LSPB	+	cpc, pte) published / reissued	
CN103889381 A	20140625	LSPB	+	published / reissued	
CN103889381 A	20140625	LSPB	+C06	PUBLICATION	
CN103889381 A	20160824	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN103889381 B	20160824	LSGT	+	granted / extensions (spc, cpc, pte)	
CO6950465 A2	20140520	LSPB	+	published / reissued	
EP2770966 A1	20140903	LSPB	+	published / reissued	
EP2770966 A1	20140903	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20140327
EP2770966 A1	20150610	LSES	+RA4	DESPATCH OF SUPPLEMENTARY SEARCH REPORT	EFFECTIVE DATE : 20150511
EP2770966 A1	20150610	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : G08B 21/20 20060101ALI20150505BHEP
EP2770966 A1	20150610	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : A61L 15/56 20060101ALI20150505BHEP
EP2770966 A1	20150610	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : A61F 13/15 20060101ALI20150505BHEP
EP2770966 A1	20150610	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : A61F 13/49 20060101ALI20150505BHEP
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EP2770966 A1	20170412	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20170309
KR20140084058 A	20140704	LSPB	+	published / reissued	
RU2014119894 A	20151210	LSPB	+	published / reissued	
RU2614589 C2	20170328	LSGT	+	granted / extensions (spc, cpc, pte)	
US2013110064 AA	20130502	LSPB	+	published / reissued	
US2013110064 AA	20111028	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:RICHARDSON, KATHY GERALYN; MACDONALD, JOHN GAVIN; ABRAHAM,JOSE K.; SIGNING DATES FROM 20111027 TO 20111028; REEL/FRAME:027138/0099
US8816149 BB	20140826	LSGT	+	granted / extensions (spc, cpc, pte)	
US8816149 BB	20140806	LSGT	PAT1	Patented Case	
US8816149 BB	20141223	LSRE	CC	CERTIFICATE OF CORRECTION	
US8816149 BB	20150203	LSAS	AS	ASSIGNMENT	OWNER NAME : KIMBERLY-CLARK WORLDWIDE, INC., WISCONSIN DESCRIPTION : NAME CHANGE; ASSIGNOR:KIMBERLY-CLARK WORLDWIDE, INC.; REEL/FRAME:034880/0674 EFFECTIVE DATE : 20150101

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WO13061180 A1	20140410	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2012328091 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20120924 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13061180 A1	20140423	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 20147010798 COUNTRY OF REF DOCUMENT : KR KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13061180 A1	20140428	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO13061180 A1	20140528	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2014119894 COUNTRY OF REF DOCUMENT : RU KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO13061180 A1	20170425	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 112014008842 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20140411