

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT7704216

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DUPONT ELECTRONICS, INC.	11/01/2022

RECEIVING PARTY DATA

Name:	DU PONT CHINA LIMITED
Street Address:	BUILDING 304, EXPERIMENTAL STATION
Internal Address:	200 POWDER MILL ROAD
City:	WILMINGTON
State/Country:	DELAWARE
Postal Code:	19803

PROPERTY NUMBERS Total: 21

Property Type	Number
Application Number:	16855605
Application Number:	15704456
Application Number:	15708490
Application Number:	14862254
Application Number:	14824202
Application Number:	14862259
Application Number:	15375544
Application Number:	16207801
Application Number:	15380210
Application Number:	16244601
Application Number:	15805226
Application Number:	17454098
Application Number:	16674133
Application Number:	17143747
Application Number:	17225285
Application Number:	16057154
Application Number:	16444331
Application Number:	17519339
Application Number:	16444304

PATENT

REEL: 062157 FRAME: 0390

Property Type	Number
Application Number:	16375095
Application Number:	16871789

CORRESPONDENCE DATA

Fax Number: (864)233-7342

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 864-271-1592

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Correspondent Name: DORITY & MANNING, P.A. & TICONA LLC

Address Line 1: P.O. BOX 1449

Address Line 4: GREENVILLE, SOUTH CAROLINA 29602

ATTORNEY DOCKET NUMBER:	DUPONT ASSIGNMENT
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NAME OF SUBMITTER:	ANAND K. PATEL
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SIGNATURE:	/Anand K. Patel/
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DATE SIGNED:	12/20/2022
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Total Attachments: 20

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PATENT ASSIGNMENT

This PATENT ASSIGNMENT (this "Assignment"), dated as of November 1, 2022 (the "Effective Date"), is by and between DuPont Electronics, Inc., a Delaware corporation with address of 974 Centre Road, Bldg. 730, Wilmington, DE 19805 ("Assignor") and Du Pont China Limited, a Delaware corporation with address of Building 304, Experimental Station, 200 Powder Mill Rd., Wilmington, DE 19803 ("Assignee"), and each of Assignor and Assignee a "Party" and collectively, the "Parties").

WHEREAS, Assignor owns the issued patents and patent applications set forth on Schedule A hereto (the foregoing, including all patents issuing from any such patent applications, collectively, the "Assigned Patents"); and

WHEREAS, the Parties hereto agree that Assignor contribute, transfer, assign and convey to the Assignee all of its right, title and interest in and to the Assigned Patents and that the Assignee accept such contribution, transfer, assignment and conveyance of such Assigned Patents;

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants and agreements contained in this Assignment, and for other good and valuable consideration, including the payment of ten dollars (\$10.00), the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

1. **Conveyance**. Assignor hereby irrevocably assigns, transfers and conveys to Assignee all of Assignor's right, title and interest in, to and under the Assigned Patents, together with any and all (a) related continuations, continuations-in-part, divisionals, reissues, reexaminations, substitutions, extensions, and foreign equivalents thereof and (b) priority rights derived from any the Assigned Patents, or the items described in the foregoing subsection (a), by virtue of the International Convention for the Protection of Industrial Property (Paris Convention), Patent Cooperation Treaty and any other rights provided under applicable treaties, conventions or the laws of any jurisdiction, including rights in any and all provisional applications, together with all rights and remedies throughout the world (i) against past, present, and future infringement or other violation thereof, including the right to enforce the foregoing and to sue for and recover profits, other damages, injunctions and obtain other equitable relief for any and all infringements or violations thereof, whether past, present or future, (ii) to collect royalties and other payments now or hereafter due or payable with respect to such Assigned Patents, (iii) to file, claim priority to, prosecute, maintain, amend, abandon, assign or otherwise transfer the above-referenced patent applications and patents under the laws of any jurisdiction and/or international conventions or treaties, and (iv) to prosecute, register, maintain, revive, renew, and defend the above-referenced patent applications and patents before any public or private agency, office or registrar; for each of the foregoing clauses (i) through (iv), to the full end of the term or terms for which said patents may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor without this Assignment, for Assignee's own use and enjoyment, and for the use and enjoyment of Assignee's successors, assigns or other legal representatives (the rights transferred under this Section 1 cumulatively, the "Assigned Rights").

2. Recordation; Further Assurances. Assignor and Assignee shall each take any and all additional actions as may be reasonably requested by the other Party to effect the transactions contemplated hereby, including Assignor's execution of individual assignment documentation prepared by Assignee for filing with the applicable authorities of an applicable country, at Assignee's expense. The Parties agree that any such assignment documentation shall give no greater rights or remedies than those provided for herein. As between the Parties, the responsibility to file assignments with the national patent offices of each country for the Assigned Patents shall be on the Assignee. Assignor hereby authorizes Assignee and its representatives to record this Assignment as may be necessary to support the transfer from Assignor to Assignee, filing, prosecution, maintenance, defense, ownership, enforcement, or collection of infringement damages in connection with the Assigned Rights, and further authorizes the Assignee and its representatives to accurately translate this Assignment into any language necessary or desirable for such purposes.

3. Prosecution and Maintenance. For the avoidance of doubt but without limiting the obligations set forth in Section 2 hereof, as of and following the Effective Date, Assignor will have no responsibility to take any action to maintain any of the patents included in the Assigned Rights or further prosecute or seek issuance of any patent applications included in the Assigned Rights, including payment of fees, responses to any office action or other inquiries from agents of governmental entities or registrars, or otherwise.

4. Disclaimer of Representations and Warranties. The Parties acknowledge and agree that, except as expressly set forth in another written agreement between the Parties, all of the Assigned Patents and other Assigned Rights are to be provided as-is, where-is and on a "with all faults" basis, and Assignee assumes all risk and liability arising from or relating to its use thereof and reliance thereon. EXCEPT AS EXPRESSLY SET FORTH IN ANOTHER WRITTEN AGREEMENT BETWEEN THE PARTIES, EACH PARTY MAKES NO, AND HEREBY EXPRESSLY DISCLAIMS ALL, REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO THE ASSIGNED PATENTS AND THE OTHER ASSIGNED RIGHTS, AS TO ANY CONSENTS OR APPROVALS (INCLUDING APPROVALS FROM ANY GOVERNMENTAL ENTITIES) REQUIRED IN CONNECTION HEREWITH OR THEREWITH, AS TO THE VALUE OR FREEDOM FROM ANY SECURITY INTERESTS OF OR THE NON-INFRINGEMENT OR ABSENCE OF OTHER VIOLATION, VALIDITY OR ENFORCEABILITY OR ANY OTHER MATTER CONCERNING THE ASSIGNED PATENTS AND OTHER PATENTS AND PATENT APPLICATIONS INCLUDED IN THE ASSIGNED RIGHTS.

5. Successors and Assigns. The provisions of this Assignment and the obligations and rights hereunder shall be binding upon, inure to the benefit of and be enforceable by (and against) the Parties and their respective successors and permitted transferees and assigns.

6. Counterparts. This Assignment may be executed and delivered (including by facsimile or other means of electronic transmission, such as by electronic mail in "pdf" form) in more than one counterpart, all of which shall be considered one and the same agreement, each of which when executed shall be deemed to be an original, and shall become effective when one or more such counterparts have been signed by each of the Parties and delivered to each of the Parties.

7. Title and Headings. Titles and headings to sections herein are inserted for the convenience of reference only and are not intended to be a part of or to affect the meaning or interpretation of this Assignment.

8. Governing Law. This Assignment and any dispute arising out of, in connection with or relating to this Assignment shall be governed by and construed in accordance with the Laws of the State of Delaware, without giving effect to the conflicts of laws principles thereof.

[Signature Page Follows]

IN WITNESS WHEREOF, Assignor and Assignee have duly executed this Assignment as of the date first written above.

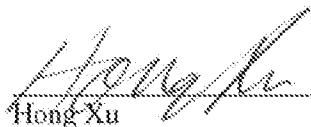
ASSIGNOR:

DUPONT ELECTRONICS, INC.

By: 
Name: Jessica Sinnott
Title: Associate General Counsel - IP
Date: November 1, 2023

ASSIGNEE:

DU PONT CHINA LIMITED

By: 
Name: Hong Xu
Title: Vice President & Assistant Secretary
Date: 11-4-2023

[Signature Page to Patent Assignment (Step 3E)]

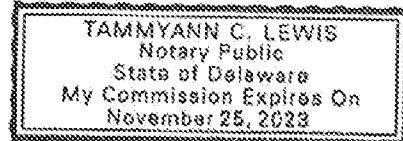
NOTARIAL CERTIFICATE

State of Delaware
County of New Castle

This Patent Assignment was acknowledged before me on 11-8-2022 by
Hong Xu, Vice President & Assistant Secretary of DuPont China Limited, on behalf of said
company.

(Personalized Seal)


Notary Public's Signature

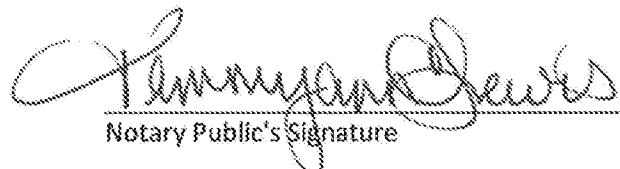


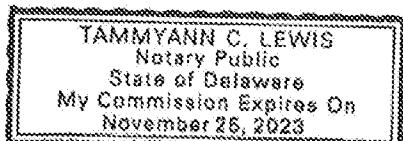
NOTARIAL CERTIFICATE

State of Delaware
County of New Castle

This Patent Assignment was acknowledged before me on 11-8-2022 by
Jessica Sinnott, Associate General Counsel - IP of DuPont Electronics, Inc., a Delaware
corporation, on behalf of said company.

(Personalized Seal)


Notary Public's Signature



Schedule A
Assigned Patents

Patent Number	Country	Effective Date	Issue Date	Grant Number	Class Number
NON-LEAD RESISTOR COMPOSITION	United States Of America	10/23/2009	12/06/2010	50312011	C14/264-15-REV
NON-LEAD RESISTOR COMPOSITION	United States Of America	5/31/2011	13/11/2012	52242012	C14/264-15-V(2)
NON-LEAD RESISTOR COMPOSITION	United States Of America	4/11/2010	12/10/2013	50312013	C14/264-15-XP
THIN-FILM TRANSPARENT CONDUCTIVE STRUCTURE AND DEVICES MADE THEREWITH	United States Of America	3/13/2013	13/03/2014	50312014	C14/264-15-XP
COPPER-CONTAINING CONDUCTIVE PASTES AND ELECTRODES MADE THEREFROM	China	5/28/2014	2014-02-08 15:21		C50041-CN-PCT
ELECTRODES MADE THEREFROM	Germany	6/28/2014	11/26/2014 02:07:24		C50041-DIRECT
COPPER-CONTAINING CONDUCTIVE PASTES AND ELECTRODES MADE THEREFROM	Japan	5/28/2014	2017-3-11 03	50282014	C50041-JP-PCT
COPPER-CONTAINING CONDUCTIVE PASTES AND ELECTRODES MADE THEREFROM	United States Of America	5/28/2014	15/05/2015	60325693	C50041-US-PCT
ELECTRICALLY CONDUCTIVE ADHESIVES	China	5/28/2015	2015/08/25 01:14	50282015	C50041-CN-PCT
ELECTRICALLY CONDUCTIVE ADHESIVES	United States Of America	8/28/2015	15/07/2015	60325695	C50041-US-PCT
ELECTRICALLY CONDUCTIVE ADHESIVES	China	5/28/2015	2015/08/22 08:2	50282015	C50041-CN-PCT
ELECTRICALLY CONDUCTIVE ADHESIVES	United States Of America	8/28/2015	15/07/2015	60325696	C50041-US-PCT
COATED COPPER PARTICLES AND USE THEREOF	China	8/28/2015	2015/08/22 08:2	50282015	C50041-CN-PCT
COATED COPPER PARTICLES AND USE THEREOF	United States Of America	8/28/2015	15/07/2015	60325697	C50041-US-PCT
THICK FILM COMPOSITIONS FOR USE IN ELECTROLUMINESCENCE APPLICATIONS	United States Of America	12/4/2013	16/07/2015	7133822	E10471-15-XP
TAPE COMPOSITION AND PROCESS FOR INTERNALLY CONSTRAINED SINTERING OF LOW TEMPERATURE COOLED CERAMIC	United States Of America	1/2/2013	16/03/2013	7177338	E10471-15-CNT
TAPE COMPOSITION AND PROCESS FOR INTERNALLY CONSTRAINED SINTERING OF LOW TEMPERATURE COOLED CERAMIC	Germany	7/19/2014	17/12/2014	6773381	E10471-15-XP
THICK FILM CONDUCTOR PASTE FOR AUTOMOTIVE GLASS	European Procedure (Patent)	7/19/2014	00/01/2015	6723381	E10471-15-EPA
THICK FILM CONDUCTOR PASTE FOR AUTOMOTIVE GLASS	Japan	8/13/2014	23/02/2014	4921673	E10471-15-JP
THICK FILM CONDUCTOR PASTE FOR AUTOMOTIVE GLASS	United States Of America	8/14/2013	12/04/2013	7133824	E10471-15-XP
LEAD-FREE INKTAPE COMPOSITION	China	11/5/2016	2016/01/16 14:37	7133824	E10471-15-XP

Year	Country	Patent No.	Grant Date	Classification	Classification Number
1999-06-15	Japan	111152006	309297036	62222012	61025675
1999-06-15	United States Of America	16732006	11343742	39342916	70673147
1999-06-15	United States Of America	12242006	16722142	9162036	9333484
1999-06-15	United States Of America	20229204	102736489	13222007	7169230
1999-06-15	United States Of America	111152005	11343742	39342916	61025675
1999-06-15	United States Of America	111152004	11343742	39342916	61025675
1999-06-15	United States Of America	111152003	11343742	39342916	61025675
1999-06-15	United States Of America	111152002	11343742	39342916	61025675
1999-06-15	United States Of America	111152001	11343742	39342916	61025675
1999-06-15	China	11232009	209493147766 X	82122013	209493147766 X
1999-06-15	Germany	11232009	99766415 5	911922012	61025675
1999-06-15	France	11232009	99766418 5	911922012	2350126
1999-06-15	France	11232009	99766418 5	911922012	2350126
1999-06-15	Japan	11232009	53767941 1	12422014	5462274
1999-06-15	United States Of America	11242008	12222002	12222002	72537338
1999-06-15	United States Of America	4152026	1133200337	1133200337	7231465
1999-06-15	United States Of America	10312204	10367936	82822007	7251441
1999-06-15	United States Of America	61122006	114513094	51252010	77222032
1999-06-15	United States Of America	53122007	114839495	111922010	7648557
1999-06-15	United States Of America	12222007	113992825	61222010	77422025
1999-06-15	United States Of America	4222006	113320041	28722008	7325367
1999-06-15	United States Of America	111622008	11601116	22222010	7686328

Case Reference	Grant Number	Issue Date	Application Number	Country	Inventor
EL 0365545-3-EP	7113523	27/09/2014	11891386	United States Of America	8/3/2007
EL 0730-US-0IV	7897586	30/12/2011	12215961	United States Of America	3/9/2010
EL 0730-45-0IV1	3843236	10/25/2011	13814258	United States Of America	1/26/2011
EL 0730-45-0IV	7704416	4/27/2013	11824454	United States Of America	6/29/2009
EL 073145-EP	7697266	4/13/2010	11823927	United States Of America	7/16/2007
EL 0747-CN-0CT	2009801123617	1/27/2013	2008801123617	China	4/17/2009
EL 0763-45-EP	7448655	11/02/2010	11880237	United States Of America	10/30/2007
EL 0764-45-EP	80444530	10/25/2011	12208335	United States Of America	1/3/2008
EL 0770-CN-0CT	200801132019	5/27/2014	200801132019	China	4/17/2008
EL 0792-PP-0CT	5406277	11/02/2013	50320611	Japan	4/11/2008
EL 0790-45-EP	8133413	3/13/2012	12423742	United States Of America	4/11/2009
EL 0794-45-EP	8237619	9/4/2012	12421504	United States Of America	4/16/2009
EL 0781-45-0CT	9307649	4/25/2016	14212014	United States Of America	4/21/2014
EL 0813-0B-0EP	87044105	4/22/2014	122981196	United States Of America	1/27/2010
EL 0817-0B-0EP	8232986	16/03/2012	12234341	United States Of America	9/19/2008
EL 0813-0B-0EP	8608266	12/17/2013	12271665	United States Of America	10/12/2009
EL 0842-0B-0EP	5426241	12/06/2013	13941319	Japan	6/16/2009
EL 0853-0B-0EP	7887882	3/15/2011	12332038	United States Of America	12/31/2008

Case Reference	Issue Number	Grant	Patent Number	Country	Date
EL3890-US-NP	5216346	71162312	12,656,792	United States Of America	3/12/2009
EL3891-US-NP	201082017728.8	71230914	301080027548.8	China	7/1/2010
EL3892-US-NP	5654588	11/28/2014	311705512	Japan	7/1/2010
EL3893-US-NP	5129288	3/6/2012	124296826	United States Of America	7/2/2010
EL3894-US-NP	3753160	8/13/2014	132514880	United States Of America	1/16/2012
EL3895-US-NP	5129272	12/11/2012	12773448	United States Of America	2/2/2010
EL3896-US-NP	201082023589.2	2/22/2015	201080023589.2	China	6/11/2010
EL3897-US-NP	602010220364.6	11/19/2014	107246712	Germany	6/11/2010
EL3898-US-EP	2443824	11/19/2014	107246712	European Procedure (Patent)	6/11/2010
EL3899-US-EP	2443824	11/19/2014	107246712	United Kingdom	6/11/2010
EL3900-US-EP	2443824	11/19/2014	107246712	Japan	6/11/2010
EL3901-US-EP	5028638	10/10/2014	51516892	United States Of America	6/11/2010
EL3902-US-EP	9255228	2/9/2016	133583491	United States Of America	6/11/2010
EL3903-US-EP	201082042013.4	2/3/2016	201080042013.4	China	9/17/2010
EL3904-US-EP	6020102526.9	7/13/2015	107257926.2	Germany	9/17/2010
EL3905-US-EP	2443826	7/13/2015	107257926.2	European Procedure (Patent)	9/17/2010
EL3906-US-EP	2443826	7/13/2015	107257926.2	United States Of America	9/17/2010
EL3907-US-NP	5362688	10/22/2013	12884517	United States Of America	9/17/2010
EL3908-US-NP	201080066633.9	6/1/2016	201080066633.9	China	1/23/2011
EL3909-US-NP	8633848	1/21/2014	11704553.9	United States Of America	1/22/2011
EL3910-US-NP	8633848	1/21/2014	13015234	United States Of America	1/22/2011
EL3911-US-DIV	5755260	1/15/2013	132308622	United States Of America	1/21/2011

Patent Number	Issue Date	Grant Number	Grant Date	Grant Number	Issue Date
POLYMER THICK FILM ENCAPSULANT AND ENHANCED STABILITY PTC CARBON SYSTEM SILVER PARTICLES AND A PROCESS FOR MAKING THEM	4/21/2016	12764485	14142012	40933236	EL0336453-XP
METHOD OF MAKING NON-METAL, NON- PRAGMATIZED SPHERICAL METAL OR METAL ALLOY PARTICLES	8/30/2018	12871167	2/5/2013	2366779	EL0342445-XP
REACTOR AND COUNTERCURRENT PROCESS FOR PREPARING SILVER POWDERS IMPROVED THICK FILM RESISTIVE MATERIAL COMPOSITIONS COMPRISING AG & ROIZ, AND METHODS OF MANUFACTURING SAME	6/1/2011	13150831	11/18/2014	36838889	EL0353448-XP
IMPROVED THICK FILM RESISTIVE MATERIAL COMPOSITIONS COMPRISING AG & ROIZ, AND METHODS OF MANUFACTURING SAME	9/13/2011	529858313	10/23/2015	3827341	EL0353448-XP
ELECTRODE AND METHOD FOR MANUFACTURING LOW TEMPERATURE CO-FIRED CERAMIC STRUCTURE FOR HIGH FREQUENCY APPLICATIONS AND PROCESS FOR MANUFACTURING SAME	12/30/2013	140443391	8/30/2016	3431148	EL0363448-CNT
ELECTRODE AND METHOD FOR MANUFACTURING THE SAME	United States Of America	14042011	134522642	12/31/2013	3613428
LOW TEMPERATURE CO-FIRED CERAMIC STRUCTURE FOR HIGH FREQUENCY APPLICATIONS AND PROCESS FOR MANUFACTURING SAME	United States Of America	14042010	140538873	5/26/2014	2738355
ELECTRODE AND METHOD FOR MANUFACTURING THE SAME	United States Of America	14042012	13381558	4/29/2014	5219294
LOW TEMPERATURE FRIEABLE THICK FILM SILVER PASTE	United States Of America	53152212	134372131	7/29/2014	5792059
A METHOD OF MANUFACTURING A RESISTOR PASTE THICK FILM PASTE AND USE THEREOF	United States Of America	62/082012	136528325	8/28/2014	8315125
THICK FILM PASTE AND USE THEREOF	China	62/223012	201389312118	4/29/2019	301320212318
THICK FILM PASTE AND USE THEREOF	Germany	62/272012	127317584	6/21/2017	6072012032052
THICK FILM PASTE AND USE THEREOF	European Procedure (Central Europe)	62/272012	127357364	6/21/2017	3110162P-EP
THICK FILM PASTE AND USE THEREOF	Japan	62/272012	7014513820	5/15/2017	6142675
THICK FILM PASTE AND USE THEREOF	United States Of America	8/01/2017	136519264	1/29/2019	10140198
THICK FILM PASTE AND USE THEREOF	United States Of America	6/26/2012	136512983	10/10/2017	37838324
CONNECTIONS FOR LOW K LOW TEMPERATURE CO- FRIED COMPOSITES (ULTC) TAPES AND LOW SHRINKAGE, MULTILAYER LTCC STRUCTURES FORMED THEREFROM	China	8/29/2012	201389414294	1/16/2020	3012800414294
TERMOFORMABLE POLYMER THICK FILM SILVER CONDUCTOR FOR CAPACITIVE SWITCHES	China	9/18/2012	2012600451233	6/24/2016	2012600451233
TERMOFORMABLE POLYMER THICK FILM SILVER CONDUCTOR FOR CAPACITIVE SWITCHES	Germany	9/18/2012	12695375	5/22/2018	5620126881161
TERMOFORMABLE POLYMER THICK FILM SILVER CONDUCTOR FOR CAPACITIVE SWITCHES	European Procedure (Russia)	9/18/2012	12695375	7/22/2018	2758988
TERMOFORMABLE POLYMER THICK FILM SILVER CONDUCTOR FOR CAPACITIVE SWITCHES	Japan	9/18/2012	2014-533992	1/22/2016	60920365

Patent	Country	Publication Date	Grant Date	Classification	Class Number
THEIRMOMARBLE POLYMER THICK FILM SILVER CONDUCTOR FOR CAPACITIVE SWITCHES	United States Of America	10/11/2013	14/08/2013	4,82/2014	563921/31
THEIRMOMARBLE POLYMER THICK FILM SILVER CONDUCTOR AND ITS USE IN CAPACITIVE SWITCH CIRCUITS	United States Of America	27/2/2014	14/07/2014	12/26/2016	324/5666
ELECTRICALLY CONDUCTIVE PASTE COMPOSITIONS FOR ACTIVE METAL IN	United States Of America	11/22/2012	13/06/2013	7/1/2014	87673728
COPRODUCTIVE METAL INK	China	5/4/2012	23/03/2013	9/21/2013	201300258952/3
CONDUCTIVE METAL INK	Germany	5/2/2012	1/27/2013	8/1/2015	602012100958/2
CONDUCTIVE METAL INK	European Procedure (Patent)	5/4/2012	1/27/2013	8/1/2015	2785792
CONDUCTIVE METAL INK	Japan	5/4/2012	2013-004724	4/27/2013	55228179
CONDUCTIVE METAL INK	United States Of America	5/4/2012	13/3463927	1/26/2016	37235664
POLYMER THICK FILM POSITIVE TEMPERATURE COEFFICIENT CARBON COMPOSITION	Germany	1/30/2013	1/26/2013	1/26/2013	51/148235-NP
POLYMER THICK FILM SOLDER ALLOY COMPOSITION	China	1/15/2013	201310015696/4	8/1/2017	201310015696/4
POLYMER THICK FILM SOLDER ALLOY COMPOSITOR	Germany	1/16/2013	10/2013/00238383/4		51/148843-E2-2017
POLYMER THICK FILM SOLDER ALLOY CONNECTOR COMPOSITION	Japan	1/18/2013	0/0720563		51/148643-NP
POLYMER THICK FILM SOLDER ALLOY CONDUCTOR COMPOSITION	United States Of America	1/15/2012	13/663352	1/28/2013	85517187
MICROWAVE WILDER JACKET WAVE CHIP SCALE PACKAGE WITH INTEGRATED ANTENNA ARRAY ON MULTILAYER DIELECTRIC SUBSTRATE	United States Of America	1/24/2013	13/745221	10/6/2015	91/53383
POLYMER THICK FILM SOLDER ALLOY MATERIAL CONDUCTOR COMPOSITIONS	United States Of America	3/25/2012	13/4/0338	10/9/2013	8557146
METHOD OF MANUFACTURING COPPER ELECTRODE	China	9/28/2012	201210267450/5	8/1/2018	201210267450/5
METHOD OF MANUFACTURING COPPER ELECTRODE	United States Of America	7/26/2012	13/338012	2/1/2014	856778/15
METHOD OF MANUFACTURING POLYMER ALLOY	United States Of America	7/21/2013	13/736121	8/27/2015	9079615
ELECTRONIC SINTERING OF POLYMER THICK FILM CONDUCTOR COMPOSITIONS	Germany	5/1/2013	10/2013/002396	1/14/2021	10/2013/002396
ELECTRONIC SINTERING OF POLYMER THICK FILM CONDUCTOR COMPOSITIONS	United States Of America	8/20/2012	13/5383584	9/23/2015	90334417
CONDUCTIVE METAL COMPOSITION	United States Of America	1/21/2013	14/105339	1/26/2016	91/56665
LAMINATION OF POLYMER THICK FILM CONDUCTOR COMPOSITIONS	China	9/21/2013	201310044786/1	4/12/2017	391302447266/1
LAMINATION OF POLYMER THICK FILM CONDUCTOR COMPOSITIONS	Germany	10/9/2013	10/2013/002372/8		51/142543-E2-2017
LAMINATION OF POLYMER THICK FILM CONDUCTOR COMPOSITIONS	Japan	10/3/2013	21/287213	11/24/2017	6247288
LAMINATION OF POLYMER THICK FILM CONDUCTOR COMPOSITIONS	United States Of America	2/24/2014	14/137453	3/24/2015	8986579

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LAMINATION OF POLYMER THICK FILM CONDUCTOR	United States Of America	10/10/20112	156428710	4/15/2014	56398260	E11135-EP-NP
COPPER PASTE COMPOSITION AND ITS USE IN A METHOD FOR FORMING COPPER CONDUCTORS ON SUBSTRATE	Germany	5/31/2013	102013060924.8	7/11/2022	152013020024.1	E11133-EP-NP
COPPER PASTE COMPOSITION AND ITS USE IN A METHOD FOR FORMING COPPER CONDUCTORS ON SUBSTRATE	Japan	5/21/2013	2013-116979	10/27/2017	6231698	E11133-EP-NP
COPPER PASTE COMPOSITION AND ITS USE IN A METHOD FOR FORMING COPPER CONDUCTORS ON SUBSTRATE	United States Of America	12/7/2015	140963814	4/3/2018	9933486	E11133-US-DV
COPPER PASTE COMPOSITION AND ITS USE IN A METHOD FOR FORMING COPPER CONDUCTORS ON SUBSTRATE	China	2/6/2015	2015800037120.5	5/28/2019	2015800037129.5	E11134-CN-PCT
THERMALLY CONDUCTIVE ELECTRONIC SUBSTRATES AND METHODS RELATED THERETO	Germany	2/6/2015	112615002089.3			E11134-CN-PCT
THERMALLY CONDUCTIVE ELECTRONIC SUBSTRATES AND METHODS RELATED THERETO	Japan	2/6/2015	2015-530734	6/21/2019	6242783	E11134-JP-PCT
PHOTONIC SINTERING OF POLYMER THICK FILM COPPER CONDUCTOR COMPOSITIONS	China	6/6/2014	2014100235245.6	1/16/2018	3214020232685.6	E11133-CN-PCT
PHOTONIC SINTERING OF POLYMER THICK FILM COPPER CONDUCTOR COMPOSITIONS	Germany	6/6/2014	14830923.6	1/22/2017	623214019235.1	E11133-DE-EP
PHOTONIC SINTERING OF POLYMER THICK FILM COPPER CONDUCTOR COMPOSITIONS (Patent)	European Patent Office	6/6/2014	14830901.6	1/22/2017	30303735	E11133-EP-EP
PHOTONIC SINTERING OF POLYMER THICK FILM COPPER CONDUCTOR COMPOSITIONS	United States Of America	6/11/2013	13946739	1/17/2015	91303186	E11133-US-NP
MOSCUTRE BARRIER LAYER DIELECTRIC FOR THERMOFORMABLE CIRCUITS	China	5/26/2013	201110124401.1	1/24/2018	26131234401.1	E11139-EP-NP
MOSCUTRE BARRIER LAYER DIELECTRIC FOR THERMOFORMABLE CIRCUITS	Germany	5/31/2013	1020130609238.8	6/27/2022	1620130809238.8	E11139-EP-NP
MOSCUTRE BARRIER LAYER DIELECTRIC FOR THERMOFORMABLE CIRCUITS	Japan	5/28/2013	11180713	4/14/2017	61233905	E11139-EP-NP
MOSCUTRE BARRIER LAYER DIELECTRIC FOR THERMOFORMABLE CIRCUITS	United States Of America	1/21/2013	142646525	11/17/2015	21873649	E11133-EP-NP
MOSCUTRE BARRIER LAYER DIELECTRIC FOR THERMOFORMABLE CIRCUITS	United States Of America	1/28/2013	130736142	7/22/2014	8185739	E11133-EP-NP
METHOD OF MANUFACTURING NON-FRAME TYPE ELECTRODE	United States Of America	1/21/2013	13748157	7/28/2015	9493675	E11144-EP-NP
METHOD OF MANUFACTURING NON-FRAME TYPE ELECTRODE	China	4/8/2014	201410023269.8	7/31/2018	3914520173699.8	E11145-CN-PCT
METHOD OF MANUFACTURING NON-FRAME TYPE ELECTRODE	United States Of America	3/18/2014	14217631	10/7/2016	9480166	E11145-US-NP
POLYMER TYPE CONDUCTIVE PASTE AND METHOD OF PRODUCING ELECTRODE BY USING THE SAME	Japan	4/2/2013	078666713	11/24/2017	6247015	E11146-JP-KF
METHOD OF MANUFACTURING NON-FRAME TYPE ELECTRODE	China	1/16/2013	201310023263.8	2/15/2019	381510022353.8	E31113-LN-NP

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HEAT-CURABLE POLYMER PASTE	United States Of America	8/2/2014	142374545	171192017
THERMALLY CONDUCTIVE ELECTRIC FILM	China	8/1/20221	2021185294819	5545536
THERMOFORMABLE CIRCUITS				EL1165-4-PCD
THERMALLY CONDUCTIVE ELECTRIC FOR THERMOFORMABLE CIRCUITS	China	7/30/2014	2011866355946	EL1165-CN-PCT
THERMALLY CONDUCTIVE ELECTRIC FOR THERMOFORMABLE CIRCUITS	Germany	7/29/2014	147302800	71142021
THERMALLY CONDUCTIVE ELECTRIC FOR THERMOFORMABLE CIRCUITS	European Procedure	7/29/2014	147302800	6023140777638
THERMALLY CONDUCTIVE ELECTRIC FOR THERMOFORMABLE CIRCUITS	Australia	7/29/2014	71142021	EL1165-DE-EP
THERMALLY CONDUCTIVE ELECTRIC FOR THERMOFORMABLE CIRCUITS	Japan	7/30/2014	2016-5313845	30274566
THERMALLY CONDUCTIVE ELECTRIC FOR THERMOFORMABLE CIRCUITS	United States Of America	7/31/2014	142333275	65225582
THERMALLY CONDUCTIVE ELECTRIC FOR THERMOFORMABLE CIRCUITS	China	4/6/2014	2014860193838	3343292
POLYMER THICK FILM POSITIVE TEMPERATURE COEFFICIENT CARBON COMPOSITION	China	4/6/2014	2014860193838	2014860193838
POLYMER THICK FILM POSITIVE TEMPERATURE COEFFICIENT CARBON COMPOSITION	Japan	4/6/2014	2016-507595	6412106
POLYMER THICK FILM POSITIVE TEMPERATURE COEFFICIENT CARBON COMPOSITION	United States Of America	4/16/2013	152359433	EL1168-4-5-NP
CONDUCTIVE LAYERED COMPOSITES	United States Of America	167626113	142349910	EL1169-US-CP
THERMOFORMABLE ELECTRIC FOR THERMOFORMABLE CIRCUITS	United States Of America	167626113	421172018	3812589
FLEXIBLE WHITE REFLECTIVE ELECTRIC FOR ELECTRONIC CIRCUITS	China	7/30/2014	2014860373861	12221019
FLEXIBLE WHITE REFLECTIVE ELECTRIC FOR ELECTRONIC CIRCUITS	Germany	7/30/2014	147302913	22112021
FLEXIBLE WHITE REFLECTIVE ELECTRIC FOR ELECTRONIC CIRCUITS	European Procedure (Patent)	7/30/2014	147302913	66214075758
FLEXIBLE WHITE REFLECTIVE ELECTRIC FOR ELECTRONIC CIRCUITS	United States Of America	2/24/2016	152321759	80212587
FLEXIBLE WHITE REFLECTIVE ELECTRIC FOR ELECTRONIC CIRCUITS	United States Of America	7/29/2014	143326336	92274726
METHOD OF FABRICATING ELECTROMAGNETIC RADIOPATCH (EGO) STRUCTURES FOR MICROWAVE/MILLIMETERWAVE APPLICATIONS USING LASER PROCESSING OF UNREFINED LOW TEMPERATURE CO-REFERRED CERAMIC ALUMINATE	United States Of America	6/4/2014	14232647	9359748
STRETCHABLE POLYMER THICK FILM SILVER CONDUCTOR FOR HIGHLY PERMEABLE SUBSTRATES	China	11/13/2014	2014860331153	11132018
STRETCHABLE POLYMER THICK FILM SILVER CONDUCTOR FOR HIGHLY PERMEABLE SUBSTRATES	Germany	11/13/2014	148131228	12202017
STRETCHABLE POLYMER THICK FILM SILVER CONDUCTOR FOR HIGHLY PERMEABLE SUBSTRATES	European Procedure (Patent)	11/13/2014	148131228	622340189164
STRETCHABLE POLYMER THICK FILM SILVER CONDUCTOR FOR HIGHLY PERMEABLE SUBSTRATES	Japan	3/26/2019	2014-0383769	3072116
STRETCHABLE POLYMER THICK FILM SILVER CONDUCTOR FOR HIGHLY PERMEABLE SUBSTRATES	Japan	11/3/2014	2016-532100	6772328
STRETCHABLE POLYMER THICK FILM SILVER CONDUCTOR FOR HIGHLY PERMEABLE SUBSTRATES	Japan	11/3/2014	6772319	6535200

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EL1189-CN-EP	United States Of America	11/16/2013	14/08/2009	2/22/2016	3253843
EL1189-CN-CT	China	31/17/2015	2015/09/03 15222-X	7/31/2018	2015/09/03 13222-X
EL1189-CN-PT11	China	31/17/2015	2015/09/03 3169.3	7/31/2018	2015/09/03 3169.3
EL1189-DE-EP	Germany	31/17/2015	157144387.1	8/21/2018	6/29/2015 3535224.1
EL1189-DE-PT12	Germany	31/17/2015	157144387.3	8/21/2018	6/29/2015 3535224.3
EL1189-EP-EP	European Procedure (PCT)	31/17/2015	157144387.1	8/21/2018	3123646
EL1189-EP-PT13	European Procedure (Patent)	31/17/2015	157144387.3	8/21/2018	3123646
EL1189-EP-PT14	Japan	31/17/2015	2015-031076	6/7/2019	6533631
EL1189-EP-PT15	Japan	31/17/2015	2016-035471	1/22/2019	6533638
EL1189-EP-PT16	United States Of America	3/22/2014	14/07/2015	3/7/2017	9/28/2012
EL1189-EP-PT17	China	31/19/2015	2015/08/03 5557.3	7/23/2019	2015/08/03 5575.3
EL1189-CN-CT	China	31/19/2015	2015/09/03 5579.1	7/23/2019	2015/09/03 5579.1
EL1189-CN-PT18	Germany	31/19/2015	157145028.5	9/12/2018	6/29/2015 6536078.9
EL1189-DE-EP	Germany	31/19/2015	15714795.3	10/3/2018	6/29/2015 7422.0
EL1189-EP-EP	European Procedure (PCT)	31/19/2015	15714795.5	9/12/2018	3123481
EL1189-EP-PT19	European Procedure (Patent)	31/19/2015	15714795.3	10/3/2018	3123482

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EL1190-JP-PCT01	45568730	8/8/2013	Japan	2016-55295	24/9/2015	Japan
EL1190-JP-NP	9779851	10/3/2017	United States Of America	143660356	31/7/2015	United States Of America
EL1194-CN-PCT			China	202017226137	11/5/2020	China
EL1194-JP-PCT			China	2015800358619	6/18/2015	China
EL1194-JP-PCT	6553705	7/12/2019	Japan	2017-501248	6/18/2015	Japan
EL1194-JS-NP	9683270	8/26/2017	United States Of America	138324780	7/7/2014	United States Of America
EL1195-JP-PCT			Germany	1120190036221	13/2/2015	Germany
EL1195-CN-NP	201502657067	2/26/2021	China	2015102663267	20/2/2015	China
EL1221-JP-NP	6562875	3/9/2019	Japan	2015-148444	20/5-14844	Japan
EL1221-JP-NP	3882246	10/2/2018	United States Of America	14719630	5/22/2013	United States Of America
EL1223-CN-PCT	2015800358739	7/30/2019	China	2017-501248	7/2/2015	China
EL1223-DE-EP	65217019	8/21/2019	Germany	157402136	7/2/2015	Germany
EL1223-JP-NP	97718956	9/7/2017	Japan	157450146	7/2/2015	Japan
EL1223-EP-EPT	3176388	6/21/2019	European Procedure (Patent)	157450146	7/2/2015	European Procedure (Patent)
EL1223-JP-PCT	6517315	4/26/2019	United States Of America	2017-502579	7/2/2015	United States Of America
EL1223-JP-NP	20158003481964	20/12/2019	China	20158003481954	7/1/2015	China
EL1224-CN-PCT	6020180316445	4/28/2020	Germany	157447857	7/3/2015	Germany
EL1224-DE-EP	3162458	4/29/2020	European Procedure (Patent)	157447657	7/2/2015	European Procedure (Patent)
EL1224-JP-EPT	6595375	10/6/2019	Japan	2017-501248	7/3/2015	Japan

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CONDUCTIVE PATHWAYS IN ELECTRONICS TYPE APPLICATIONS AND METHODS RELATING THERETO				
FLUORABLE COMPOSITIONS WITH LOW TEMPERATURE CURRY TO FORM THERMALLY CONDUCTIVE PATHWAYS IN ELECTRONICS TYPE APPLICATIONS AND METHODS RELATING THERETO	United States Of America China	7/6/2015 9/1/2015	14/7791515 201580046974	12/12/2017 29/8/2020
HERMOPERMABLE POLYMER THICK FILM TRANSPARENT CONDUCTOR AND ITS USE IN CAPACTIVE SWITCH CIRCUITS	Germany	9/1/2015	15/7783750	11/28/2018
HERMOPERMABLE POLYMER THICK FILM TRANSPARENT CONDUCTOR AND ITS USE IN CAPACTIVE SWITCH CIRCUITS	European Procedure (Patent)	9/1/2015	15/7780350	14/28/2018
HERMOPERMABLE POLYMER THICK FILM TRANSPARENT CONDUCTOR AND ITS USE IN CAPACTIVE SWITCH CIRCUITS	Japan	9/1/2015	2015-0158011	6/27/2019
HERMOPERMABLE POLYMER THICK FILM TRANSPARENT CONDUCTOR AND ITS USE IN CAPACTIVE SWITCH CIRCUITS	United States Of America China	9/18/2014 1/25/2015	14/4498878 201580046975	8/30/2016
STRETCHABLE POLYMER THICK FILM COMPOSITIONS FOR THERMOPLASTIC POLYURETHANE SUBSTRATES AND WEARABLES ELECTRONICS	United States Of America Europe (Patent)	9/18/2014 1/25/2015	201580046975 15/8010123	6/25/2019
STRETCHABLE POLYMER THICK FILM COMPOSITIONS FOR THERMOPLASTIC POLYURETHANE SUBSTRATES AND WEARABLES ELECTRONICS	United States Of America United States Of America	9/18/2014 1/12/2015	16/0353344 14/328348	5/27/2020
STRETCHABLE POLYMER THICK FILM COMPOSITIONS FOR THERMOPLASTIC SUBSTRATES AND WEARABLES ELECTRONICS	United States Of America	9/18/2013	15/6353344	1/12/2021
STRETCHABLE POLYMER THICK FILM COMPOSITIONS FOR THERMOPLASTIC SUBSTRATES AND WEARABLES ELECTRONICS	United States Of America	1/12/2015	14/328348	9/11/2018
METALLIC CONDUCTIVE BOX WELD PASTE BASED ON THERMOPLASTIC POLYMER ELECTRONIC COMPONENT	China	3/16/2016	201503022301.0	8/30/2021
ELECTRIC COMPONENT	Japan	3/16/2016	2017-05-02249	9/28/2020
ELECTRIC COMPONENT	United States Of America	7/12/2017	15/6342766	1/22/2019
ELECTRIC COMPONENT	China	1/23/2018	201611254733.6	20/6/2021
ELECTRIC COMPONENT	Germany	1/10/2017	1620170001393	16/20/2019
ELECTRIC COMPONENT	Japan	1/22/2017	2017-0011439	10/22/2021
CHIP RESISTOR	China	8/24/2017	201710146815.5	20/7/2021
CHIP RESISTOR	China	2/27/2018	201810152357	2/22/2022

Year	Country	Number	Kind	Class	Category	
2013	United States Of America	163442040	163442040	Y01N55/65	EL1227-148-3P	
2013	China	20131020117	20131020117	2011020214418	EL1248-CN-3P	
2013	Germany	941472817	1029170824338	9392021	EL1248-DE-3P	
2013	Japan	414526316	20131180702	111162030	EL1248-JP-3P	
2013	United States Of America	402202320	162856465		EL1248-US-3P	
2014	United States Of America	911420117	158794436	633920203	163883875	EL1248-US-3P
2014	Japan	501520116	2013-18705	2112621	6344673	EL1248-JP-3P
2014	China	93920212	2013102014328	5	1029170824223	BY1220-CN-3P
2014	Germany	103653117	1039170824221	1	2011020214419	EL1220-DE-3P
2014	Japan	103820116	2013-19834	3132021	6388974	EL1248-JP-3P
2014	United States Of America	911420117	158794465	82520203	10756047	EL1248-US-3P
2014	China	819729116	2014603653863	0	2014603653863	EL1253-CN-3CT
2014	Germany	819720116	167363628	111132018	6620162243342	EL1253-DE-3PT
2014	European Procedure	819720116	167363628	111132019	33352223	EL1253-EU-3PT
2014	France	819720116	2013-07754	72282020	6737873	EL1253-FR-3PT
2014	Japan	921330115	143862284	5222017	9837447	EL1253-JP-3P
2014	United States Of America	921330115	2013-07753	72282020	6737872	EL1253-US-3PT
2014	Japan	921330116	2014603653863	X	2014603653863	EL1253-CN-3CT
2014	China	921330116	2014603653863	X	2014603653863	EL1253-DE-3PT
2014	Germany	921330116	167517960	67122019	6020160152284	EL1253-EU-3PT
2014	European Procedure (Patent)	921330116	167517960	67122019	6020160152284	EL1253-EU-3PT
2014	Japan	921330116	2014-0872453	72282020	6737874	EL1253-FR-3CT
2014	United States Of America	921330115	143824002	511620317	9844873	EL1253-US-3P
2014	China	83920116	2014603652813	41162020	2014603652813	EL1256-CN-3CT
2014	Germany	83920116	167548640	31112020	6020160152637	EL1256-DE-3PT
2014	European Procedure (Patent)	83920116	167548640	31112020	6020160152637	EL1256-EU-3PT

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PHOTONIC SINTERING OF A SOLDERABLE POLYMER THICK FILM COPPER CONDUCTOR COMPOSITION	Japan	3/9/2016	2018-507542	7/20/2020	6737671	EL1256-JP-PCT
PHOTONIC SINTERING OF A SOLDERABLE POLYMER THICK FILM COPPER CONDUCTOR COMPOSITION	United States Of America	9/22/2015	14/862259	5/2/2017	9637648	EL1256-US-NP
POLYIMIDE-BASED POLYMER THICK FILM COMPOSITIONS	China	12/21/2016	201611191597.8	12/15/2020	201611191597.8	EL1258-CN-NP
POLYIMIDE-BASED POLYMER THICK FILM COMPOSITIONS	European Procedure (Patent)	12/20/2016	1637952.6			EL1258-EP-EPT
POLYIMIDE-BASED POLYMER THICK FILM COMPOSITIONS	Japan	1/28/2021	2021-01-1843			EL1258-JP-DIV
POLYIMIDE-BASED POLYMER THICK FILM COMPOSITIONS	United States Of America	12/12/2016	15/375544	1/29/2019	10189950	EL1258-US-NP
POLYIMIDE-BASED POLYMER THICK FILM RESISTOR COMPOSITION	United States Of America	12/3/2018	16/207861	12/17/2019	10508217	EL1259-US-CIP
POLYIMIDE-BASED POLYMER THICK FILM RESISTOR COMPOSITION	United States Of America	12/15/2016	15/380210	12/11/2018	10153075	EL1259-US-NP
ELECTRICAL CONNECTIONS AND THEIR USE IN WEARABLES AND OTHER APPLICATIONS	China	9/27/2017	20172125180-X	10/12/2018	20172125180-X	EL1264-CN-UM
ELECTRICAL CONNECTIONS FOR WEARABLES AND OTHER ARTICLES	China	11/30/2017	201711240451.2	12/7/2021	201711240451.2	EL1265-CN-NP
ELECTRICAL CONNECTIONS FOR WEARABLES AND OTHER ARTICLES	China	11/30/2017	201721645999.0	11/16/2018	201721645999.0	EL1265-CN-UM
ELECTRICAL CONNECTIONS FOR WEARABLES AND OTHER ARTICLES	Japan	12/1/2017	2017-231677	1/31/2022	7017383	EL1265-JP-NP
ELECTRICAL CONNECTIONS FOR WEARABLES AND OTHER ARTICLES	United States Of America	17/10/2019	16/244601	1/12/2021	10892588	EL1265-US-CIP
ARTICLES AND SUBSTRATES PROVIDING IMPROVED PERFORMANCE OF PRINTABLE ELECTRONICS	China	10/31/2017	20178008126.4			EL1269-CN-PCT
ARTICLES AND SUBSTRATES PROVIDING IMPROVED PERFORMANCE OF PRINTABLE ELECTRONICS	Germany	10/31/2017	112017005605.5			EL1269-DE-PCT
ARTICLES AND SUBSTRATES PROVIDING IMPROVED PERFORMANCE OF PRINTABLE ELECTRONICS	Japan	10/31/2017	2019-523818			EL1269-JP-PCT
ARTICLES AND SUBSTRATES PROVIDING IMPROVED PERFORMANCE OF PRINTABLE ELECTRONICS	United States Of America	1/17/2017	15/805226	11/3/2020	10827610	EL1269-US-NP
CONDUCTIVE PASTE FOR BONDING	Japan	9/21/2016	2016-184511			EL1270-JP-NP
MANUFACTURING METHOD OF ELECTRIC DEVICE USING THEREOF	Japan	1/1/2017	2017-212139	3/8/2022	7037332	EL1274-JP-NP
METHOD OF MANUFACTURING AN ELECTRONIC DEVICE AND CONDUCTIVE PASTE FOR THE SAME	European Procedure (Patent)	3/4/2019	19714511.3			EL1276-EP-EPT
CONDUCTIVE PASTE FOR BONDING	Japan	3/22/2018	2018-03756			EL1276-JP-NP
METHOD OF MANUFACTURING AN ELECTRONIC DEVICE AND CONDUCTIVE PASTE FOR THE SAME	United States Of America	1/19/2021	17454098			EL1276-US-CNT
CONDUCTIVE PASTE AND ELECTRICAL COMPONENT	China	1/17/2019	201911083177.7			EL1282-CN-NP
DIELECTRIC FILTER AND METHOD FOR MANUFACTURING THE SAME	United States Of America	1/15/2019	16/674133	1/18/2022	111228030	EL1282-US-NP
IMPROVED PRINTABLE HEATERS TO HEAT WEARABLES AND OTHER ARTICLES	China	6/7/2018	201810579518.3			EL1295-CN-NP

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IMPROVED PRINTABLE HEATERS TO HEAT WEARABLES AND OTHER ARTICLES	United States Of America	1/17/2021	171143747			EL1295-US-DIV
BENDABLE ELECTRICAL CONDUCTOR IN A THERMOFORMED ARTICLE	Germany	6/7/2018	1020180046169	9/30/2019	102018004616	EL1236-DE-NP
BENDABLE ELECTRICAL CONDUCTOR IN A THERMOFORMED ARTICLE	Japan	6/7/2018	2018-109621			EL1236-JP-NP
HAND AND FOOT HEATERS	China	1/15/2019	2019100355374			EL1107-CN-NP
HAND AND FOOT HEATERS	United States Of America	1/11/2019	1020191009170			EL1107-US-NP
HAND AND FOOT HEATERS	Germany	4/8/2021	17225285			EL1307-US-DIV
HAND AND FOOT HEATERS	United States Of America	8/7/2018	169357154	5/18/2021	11006655	EL1307-US-NP
POLYMER THICK FILM DIELECTRIC PASTE COMPOSITION	Germany	5/18/2019	1120190030639			EL1309-DE-PCT
POLYMER THICK FILM DIELECTRIC PASTE COMPOSITION	Japan	6/18/2019	2020-576874			EL1309-JP-PCT
POLYMER THICK FILM DIELECTRIC PASTE COMPOSITION	United States Of America	5/18/2019	161444331	7/13/2021	116646105	EL1309-13-NP
STRETCHABLE CONDUCTIVE FLUOROELASTOMER PASTE COMPOSITION	China	10/15/2019	2019102782859			EL1313-CN-NP
STRETCHABLE CONDUCTIVE FLUOROELASTOMER PASTE COMPOSITION	Germany	10/16/2019	1020190071891			EL1313-DE-NP
STRETCHABLE CONDUCTIVE FLUOROELASTOMER PASTE COMPOSITION	Japan	10/16/2019	2019-183953			EL1313-JP-NP
STRETCHABLE CONDUCTIVE FLUOROELASTOMER PASTE COMPOSITION	Taiwan	10/14/2019	106136917			EL1313-TW-NP
STRETCHABLE CONDUCTIVE FLUOROELASTOMER PASTE COMPOSITION	United States Of America	1/14/2021	171519359			EL1313-US-DIV
FLEXIBLE ELECTRICALLY CONDUCTIVE PASTES AND DEVICES MADE THEREWITH	Germany	6/18/2019	1120190030612			EL1314-DE-PCT
FLEXIBLE ELECTRICALLY CONDUCTIVE PASTES AND DEVICES MADE THEREWITH	Japan	6/18/2019	2020-570869			EL1314-JP-PCT
FLEXIBLE ELECTRICALLY CONDUCTIVE PASTES AND DEVICES MADE THEREWITH	United States Of America	6/18/2019	161444504			EL1314-US-NP
FINE SILVER PARTICLE DISPERSION	United States Of America	4/4/2019	161575095	7/27/2021	11072715	EL1319-US-NP
STRETCHABLE POLYMER THICK FILM CARBON BLACK COMPOSITION FOR WEARABLE HEATERS	China	5/13/2020	2020104044822			EL1404-CN-NP
STRETCHABLE POLYMER THICK FILM CARBON BLACK COMPOSITION FOR WEARABLE HEATERS	Germany	5/13/2020	1020201129203			EL1404-DE-NP
STRETCHABLE POLYMER THICK FILM CARBON BLACK COMPOSITION FOR WEARABLE HEATERS	Japan	5/13/2020	2020-584435			EL1404-JP-NP
STRETCHABLE POLYMER THICK FILM CARBON BLACK COMPOSITION FOR WEARABLE HEATERS	Taiwan	5/13/2020	103115797			EL1404-TW-NP
STRETCHABLE POLYMER THICK FILM CARBON BLACK COMPOSITION FOR WEARABLE HEATERS	United States Of America	5/11/2020	161871789	1/1/2022	111226587	EL1404-US-NP
STRETCHABLE POLYMER THICK FILM CARBON BLACK COMPOSITION FOR WEARABLE HEATERS	International	6/16/2022	PCT70582072876			EL2103-WO-PCT
Dielectric Filter	Procedure					

Title	Country	Filing Date	Patent Number	Grant Date	Grant Number	Case Reference
Thermoformable conductive Ag composition	United States Of America					EL2104-US-PSP
Thermoformable conductive Ag composition (MEL02)	United States Of America					EL2105-US-PSP

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PATENT
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