# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3538058

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
YO-HAN KWON	01/13/2012
JE-YOUNG KIM	01/13/2012
SANG-YOUNG LEE	01/13/2012
BYUNG-HUN OH	01/13/2012
KI-TAE KIM	01/13/2012
HYO-JEONG HA	01/13/2012

# **RECEIVING PARTY DATA**

Name:	LG CHEM, LTD.
Street Address:	LG TWIN TOWERS, 20, YEOUIDO-DONG
Internal Address:	YEONGDEUNGPO-GU
City:	SEOUL
State/Country:	KOREA, REPUBLIC OF
Postal Code:	150-721

### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	14826641

# **CORRESPONDENCE DATA**

**Fax Number:** (908)654-7866

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:** (908) 518-6320

Email: assignment@lernerdavid.com

Correspondent Name: LDLK&M

Address Line 1: 600 SOUTH AVENUE WEST

Address Line 4: WESTFIELD, NEW JERSEY 07090

ATTORNEY DOCKET NUMBER:	LGCHEM 3.9-201 CON DIV	
NAME OF SUBMITTER:	MELINDA C. CORMIER	
SIGNATURE:	/Melinda C. Cormier/	
DATE SIGNED:	09/23/2015	

PATENT REEL: 036630 FRAME: 0207

# Total Attachments: 6 source=Assignments 3#page1.tif source=Assignments 3#page2.tif source=Assignments 3#page3.tif source=Assignments 3#page4.tif source=Assignments 3#page5.tif source=Assignments 3#page6.tif

PATENT REEL: 036630 FRAME: 0208

ASSIGNMENT OF PATENT APPLICATION	Docket Number (Optional)
TOO OTTALLAT APPLICATION	LGCHEM
Whereas, I, KWON, Yo-Han	of c
105-104, Chowon Apt., Mannyeon-dong, Seo-gu, Dae	jeon 382-740 Republic of Korea
hereafter referred to as assignor, have with others invented certa ELECTROLYTE FOR ELECTROCHEMICAL DEVICE ELECTROLYTE AND ELECTROCHEMICAL DEVICE	in new and useful improvements in METHOD FOR PREDADING THE
for which an application for a United States Letters Pate Application Number 13/353 690	nt was filed onJanuary 19, 2012
Application Number 13/353,690 for which an application for a United States Letters Patent	t was executed by me on
x for which an International Application was fied on	AND THE PROPERTY OF THE PROPER
PCT/KR2011/004337 , designating the United	
Whereas, LG Chem, Ltd.	
a corporation of Korea, Republic of herein referred to as "assigned 20, Yoldo-dong, Youngdungpo-gu, Seoul 158-721 REF	PUBLIC OF KOREA
is desirous of acquiring the entire right, title and interest in the sar	ne;
is acknowledged, and other good and valuable consideration, I assignee my entire right, title and interest for the United States invention and the aforesald utility patent application and all or applications and patents applied for or granted therefor in the U said invention, including without limitation all applications and patents applied for or granted therefor in the U said invention, including without limitation all applications and patents aforesald utility application pursuant to any law or treaty, and infringement with the right to sue for and collect the same for its legal representatives, and including the right to claim such priority admarks is hereby authorized and requested to issue all patents and assignee herein, as assignee of the entire interest the representatives, heirs and assignee of the entire interest the representatives, heirs and assignee or its assigns, to communicate and divisional, continuation, release and other application assignments thereof to said assignee or its assigns, to communicate the undersigned respecting said improvements, whenever a supplication in the undersigned respecting said improvements or patents may rightful oaths, and to do generally everything necessary to aid a obtain patent protection for said improvements in all countries, the and paid by said assignee.	s of America and all other countries in and to said iginal, divisional, continuation, substitute or reissue linited States of America and all other countries, for tents for said invention claiming priority or benefit of I including all claims for damages by reason of past own use and the use of its successors, assigns and thy or benefit and the Commissioner of Patents and this on said improvements or resulting therefrom to trein; and the undersigned for me and my legal without further remuneration, to execute and deliver as for Letters Patent on said improvements and all cate to said assignee or its representatives all facts are requested, to testify in any interferences or other become involved, to sign all lawful papers, make all assignee, its successors, assigns and nominees to a expenses incident to said applications to be borne.
And I do hereby authorize my altorneys to insert on this caed the f when known.	Iling date and application number of said application
January 13,2012	H. Kum
Date	KWON, Yo-Han
Witness	
SONG, Mi-ran Typed Name of Witness	
x *Total of 1 forms are submitted.	

ASSIGNMENT OF PATENT APPLICATION	Docket Number (Optional)
MOSSIMENT OF PATENT AFFEICATION	LGCHEM
Whereas, I, KIM, Je-Young	of
103-1708, Expo Apt., Jeonmin-dong, Yuseong-gu, Di	aejeon 305-761 Republic of Korea
hereafter referred to as assigner, here with others invented cert ELECTROLYTE FOR ELECTROCHEMICAL DEVICE ELECTROLYTE AND ELECTROCHEMICAL DEVICE	tain new and useful improvements in E. METHOD FOR PREPARING THE
for which an application for a United States Letters Pat	Annual Control of the
Application Number13/353,690	of was executed by me on
x for which an International Application was fied on	
PCT/KR2011/804337 , designating the United	· · · · · · · · · · · · · · · · · · ·
Whereas, LG Chem, Ltd.	
a corporation of Korea, Republic of herein referred to as "assign 20, Yoldo-dong, Youngdungpo-gu, Seoul 150-721 RE	nee" whose mailing address is
is desirous of acquiring the entire right, title and interest in the sa	
is acknowledged, and other good and valuable consideration, assignee my entire right, title and interest for the United Statinvention and the aforesaid utility patent application and all cappscations and patents applied for or granted therefor in the said invention, including without simitation all applications and p the aforesaid utility application pursuant to any law or treaty, an infringement with the right to sue for and collect the same for its legal representatives, and including the right to claim such price. Trademarks is hereby authorized and requested to issue all pasaid assignee herein, as assignee of the entire interest its representatives, heirs and assigns do hereby agree and covenant original, divisional, continuation, reissue and other applications assignments thereof to said assignee or its assigns, to communication to the undersigned respecting said improvements, whence the said proceedings in which any of said applications or patents maked proceedings in which any of said applications or patents maked in patent protection for said improvements in all countries, it and paid by said assignee.	despiration of America and all other countries in and to said priginal, divisional, continuation, substitute or reissue. United States of America and all other countries, for patents for said invention claiming priority or benefit of an including all claims for damages by reason of past is own use and the use of its successors, assigns and prity or benefit and the Commissioner of Patents and alterts on said improvements or resulting therefrom to herein; and the undersigned for me and my legal interest without further remuneration, to execute and deliver one for Letters Patent on said improvements and all hicate to said assignee or its representatives all facts aver requested, to testify in any interferences or other asy become involved, to sign all lawful papers, make all assignee.
And I do hereby authorize my attorneys to insert on this deed the when known.	filing date and application number of said application
January 13,2012	- HARON
Pale	KIM, Je-Young
Witness  SONG, Mi-Ran  Typed Name of Witness	
x *Total of 2 forms are submitted,	

ASSIGNMENT OF PATENT APPLICATION	Docket Number (Optional)	
AGGIGNMENT OF FATENT APPLICATION	LGCHEM	
Na		
Whereas, I, LEE, Sang-Young		
307-1004, Hyundai 3 Cha Apt., Seoksa-dong, Chunch Republic of Korea		
hereafter referred to as assignor, have with others invented certain new and useful improvements in ELECTROLYTE FOR ELECTROCHEMICAL DEVICE, METHOD FOR PREPARING THE ELECTROLYTE AND ELECTROCHEMICAL DEVICE INCLUDING THE ELECTROLYTE January 19, 2012		
for which an application for a United States Letters Patent was filed on Application Number 13/353,690		
for which an application for a United States Letters Paten	t was executed by me on	
x for which an International Application was filed on	June14, 2011 , as	
PCT/KR2011/004337 , designating the United	States.	
And		
Whereas, LG Chem, Ltd.		
a corporation of Korea, Republic of herein referred to as "assigne 20, Yoldo-dong, Youngdungpo-gu, Seoul 150-721 REF	es" whose mailing address is HIRLIC OF KORE∆	
is desirous of acquiring the entire right, title and interest in the sar		
is acknowledged, and other good and valuable consideration, the assignee my entire right, title and interest for the United State invention and the aforesaid utility patent application and all or applications and patents applied for or granted therefor in the the said invention, including without limitation all applications and patents application pursuant to any law or treaty, and infringement with the right to sue for and collect the same for its legal representatives, and including the right to claim such prior Trademarks is hereby authorized and requested to issue all patencies assignee herein, as assignee of the entire interest the representatives, theirs and assigns do hereby agree and covernant all original, divisional, continuation, reissue and other application assignments thereof to said assignee or its assigns, to communic known to the undersigned respecting said improvements, whenever legal proceedings in which any of said applications or patents may rightful oaths, and to do generally everything necessary to aid obtain patent protection for said improvements in all countries, the and paid by said assignee.	s of America and all other countries in and to said iginal, divisional, continuation, substitute or reissue failed States of America and all other countries, for lends for said invention claiming priority or benefit of lincluding all claims for damages by reason of past town use and the use of its successors, assigns and ity or benefit and the Commissioner of Patents and ants on said improvements or resulting therefrom to be rein; and the undersigned for me and my legal without further remuneration, to execute and deliver as for Letters Patent on said improvements and all cate to said assignee or its representatives all facts are requested, to testify in any interferences or other become involved, to sign all lawful papers, make all assignee, its successors, assigns and nominees to e expenses incident to said applications to be borne	
And I do hereby authorize my attorneys to insert on this deed the t when known.	liting date and application number of said application	
1, 13, 2012	Ay Lee	
Date	LEE, Sang-Young	
(TOM)		
Witness		
SONG, Mi-ran Typed Name of Witness		
,,		

X

\*Total of

3

forms are submitted.

PATENT REEL: 036630 FRAME: 0211

ASSIGNMENT OF PATENT APPLICATION	Docket Number (Optional)	
ACCIONMENT OF PATENT APPLICATION	LGCHEM	
Whereas, i, OH, Byung-Hun	of	
202-504, Ggumnamu Apt., Dunsan-dong, Seo-gu, Dae	jeon 302-120 Republic of Korea	
hereafter referred to as assignor, have with others invented certa ELECTROLYTE FOR ELECTROCHEMICAL DEVICE ELECTROLYTE AND ELECTROCHEMICAL DEVICE	METHOD FOR PREPARING THE	
for which an application for a United States Leiters Pate	and the second s	
Application Number 13/353,690 for which an application for a United States Letters Patent		
x for which an International Application was filed on	June14, 2011 , as	
PCT/KR2011/004337 , designating the United :		
Whereas, LG Chem, Ltd.		
a corporation of Korea, Republic of herein referred to as "assigne 20, Yoldo-dong, Youngdungpo-gu, Seoul 150-721 REP	e" whose mailing address is UBLIC OF KORFA	
is desirous of acquiring the entire right, title and interest in the san	ne;	
is acknowledged, and other good and valuable consideration, I assignee my entire right, title and interest for the United States invention and the aforesaid utility patent application and all or applications and patents applied for or granted therefor in the Usaid invention, including without limitation all applications and patents application pursuant to any law or treaty, and infringement with the right to sue for and collect the same for its legal representatives, and including the right to claim such priori Trademarks is hereby authorized and requested to issue all pate said assignee herein, as assignee of the entire interest the representatives, helrs and assigns do hereby agree and covenant all original, divisional, continuation, reissue and other application assignments thereof to said assignee or its assigns, to communic known to the undersigned respecting said improvements, whenever its patent protection for said improvements in all countries, the and paid by said assignee.	of America and all other countries in and to said ginat, divisional, continuation, substitute or reissue nited States of America and all other countries, for lends for said invention claiming priority or benefit of including all claims for damages by reason of past own use and the use of its successors, assigns and ty or benefit and the Commissioner of Patents and said improvements or resulting therefrom to rein; and the undersigned for me and my legal without further remuneration, to execute and deliver is for Letters Patent on said improvements and all cate to said assignee or its representatives all facts or requested, to testify in any interferences or other become involved, to sign all lawful papers, make all assignee, its successors, assigns and nominees to expenses incident to said applications to be borne.	
And I do hereby authorize my attorneys to insert on this deed the f when known.	iling date and application number of said application	
January B, 2012	lar	
Cate	OH, Byung-Hun	
<del>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</del>		
Witness		
SONG, Mi-Ran Typed Name of Witness		
Y Total of 4 forms are submitted.		

ASSIGNMENT OF PATENT APPLICATION	Docket Number (Optional)
ACCIONMENT OF PATENT APPEICATION	LGCHEM
and the second second	
Whereas, I, KIM, Ki-Tae	of
601-601, Unam Neomia, Gwanpyeong-dong, Yuseong Republic of Korea	-gu, Daejeon 305-746
hersafter referred to as assignor, have with others invented certal ELECTROLYTE FOR ELECTROCHEMICAL DEVICE, ELECTROLYTE AND ELECTROCHEMICAL DEVICE.  for which an application for a United States Letters Pater	METHOD FOR PREPARING THE NCLUDING THE ELECTROLYTE
Application Number 13/353,090	
for which an application for a United States Letters Patent	Accompanies of the second of t
x for which an International Application was filed on PCT/KR2011/004337 designation the United S	
And PCT/RR2011/004337 , designating the United S	States.
Whereas, LG Chem, Ltd.	
a corporation of Kates, Republic of herein referred to as "assigned 20, Yoldo-dong, Youngdungpo-gu, Seoul 150-721 REP	e" whose mailing address is
is desirous of acquiring the entire right, title and interest in the san	7e;
NOW, THEREFORE, in consideration of the sum of gine dress acknowledged, and other good and valuable consideration, I assignee my entire right, title and interest for the United States invention and the aforesaid utility patent application and all oriapplications and patents applied for or granted therefor in the U said invention, including without limitation all applications and patents aforesaid utility application pursuant to any law or treaty, and infringement with the right to sue for and collect the same for its a legal representatives, and including the right to claim such priority and assignee herein, as assignee of the entire interest the representatives, heirs and assignee of the entire interest the representatives, heirs and assigns do hereby agree and covernant all original, divisional, continuation, reissue and other application assignments thereof to said assignee or its assigns, to communic known to the undersigned respecting said improvements, whenever legal proceedings in which any of said applications or patents may rightful oaths, and to do generally everything necessary to aid a obtain patent protection for said improvements in all countries, the and paid by said assignee.	i of America and alt other countries in and to sald ginal, divisional, continuation, substitute or reissue nited States of America and all other countries, for tents for said invention claiming priority or benefit of including all claims for damages by reason of past own use and the use of its successors, assigns and try or benefit and the Commissioner of Patents and the son said improvements or resulting therefrom to rein; and the undersigned for me and my legal without further remuneration, to execute and deliver as for Letters Patent on said improvements and all tate to said assignee or its representatives all facts are requested, to testify in any interferences or other become involved, to sign all lawful papers, make all tassignee, its successors, assigns, and nominage to
And I do hereby authorize my attorneys to insert on this deed the f when known.	iling date and application number of said application
January 13 2012	KIM, Ki-Tae
Land 1	, , , , , ,
Witness	
SONG, Mi-Ran	
Typed Name of Wilness	
X *Total of 5 forms are submitted.	

ASSIGNMENT OF PATENT APPLICATION	Occket Number (Optional)	
AGGIONNENT OF PATENT APPLICATION	LGCHEM	
Whereas, I, HA, Hyo-Jeong	of .	
88-15, Obin 1-ri, Yangpyeong-eup, Yangpyeong-gun,	Gyeonggi-do 476-803 Republic of Korea	
hereafter referred to as assignor, have with others invented certa ELECTROLYTE FOR ELECTROCHEMICAL DEVICE ELECTROLYTE AND ELECTROCHEMICAL DEVICE	in new and useful improvements in METHOD FOR PREPARING THE	
for which an application for a United States Letters Patent was filed on January 19, 2012  Application Number 13/353,690		
for which an application for a United States Letters Paten	t was executed by me on	
x for which an International Application was filed on	June14, 2011 , as	
PCT/KR2011/004337 , designating the United		
And Whereas, LG Chem, Ltd.		
a corporation of Korea, Republic of herein referred to as "assignated, Yoldo-dong, Youngdungpo-gu, Seoul 150-721 REF	PUBLIC OF KOREA	
is desirous of acquiring the entire right, title and interest in the sai	ne;	
is acknowledged, and other good and valuable consideration, I assignee my entire right, title and interest for the United State invention and the aforesaid utility patent application and all or applications and patents applied for or granted therefor in the L said invention, including without limitation all applications and patents applied for or granted therefor in the L said invention, including without limitation all applications and patents aforesaid utility application pursuant to any law or treaty, and infringement with the right to sue for and collect the same for its legal representatives, and including the right to claim such prior Trademarks is hereby authorized and requested to issue all patents assignee herein, as assignee of the entire interest the representatives, heirs and assigne do hereby agree and coverant all original, divisional, continuation, reissue and other application assignments thereof to said assignee or its assigns, to community known to the undersigned respecting said improvements, whenever its applications or patents may rightful caths, and to do generally everything necessary to aid obtain patent protection for said improvements in all countries, the and paid by said assignee.	s of America and all other countries in and to said iginal, divisional, continuation, substitute or reissue thited States of America and all other countries, for tents for said invention claiming priority or benefit of I including all claims for damages by reason of past own use and the use of its successors, assigns and thy or benefit and the Commissioner of Patents and ents on said improvements or resulting therefrom to testin; and the undersigned for me and my legal without further remuneration, to execute and deliver as for Letters Patent on said improvements and all cate to said assignee or its representatives all facts are requested, to testify in any interferences or other assignee, its successors, assigns and nominees to a expenses incident to said applications to be borne	
And I do hereby authorize my attorneys to insert on this deed the when known.	iling date and application number of said application	
1,13,2012	- Ym	
Qate	HA, Hyo-Jeong	
Witness		
SONG, Mi-Ran Typed Name of Witness		
x *Total of 6 forms are submitted.		
Leading to the second s	<u> </u>	

PATENT REEL: 036630 FRAME: 0214

**RECORDED: 09/23/2015**