

# PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

EPAS ID: PAT3538058

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	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**

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

**PROPERTY NUMBERS Total: 1**

Property Type	Number
<b>Application Number:</b>	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@lerner david.com  
**Correspondent Name:** LDLK&M  
**Address Line 1:** 600 SOUTH AVENUE WEST  
**Address Line 4:** WESTFIELD, NEW JERSEY 07090

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

**Total Attachments: 6**

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**ASSIGNMENT OF PATENT APPLICATION**

Docket Number (Optional)

LGCHEM

Whereas, I, KWON, Yo-Han

of

105-104, Chwon Apt., Manbyeon-dong, Seo-gu, Daejeon 302-740 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**

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 Patent was executed by me on \_\_\_\_\_

for which an International Application was filed on June 14, 2011, as

PCT/KR2011/004337, designating the United States.

And

Whereas, LG Chem, Ltd.

a corporation of Korea, Republic of herein referred to as "assignee" whose mailing address is

20, Yoido-dong, Youngdungpo-gu, Seoul 150-721 REPUBLIC OF KOREA

is desirous of acquiring the entire right, title and interest in the same;

NOW, THEREFORE, in consideration of the sum of one dollars (\$ 1.00 ), the receipt whereof is acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set over to said assignee my entire right, title and interest for the United States of America and all other countries in and to said invention and the aforesaid utility patent application and all original, divisional, continuation, substitute or reissue applications and patents applied for or granted therefor in the United States of America and all other countries, for said invention, including without limitation all applications and patents for said invention claiming priority or benefit of the aforesaid utility application pursuant to any law or treaty, and including all claims for damages by reason of past infringement with the right to sue for and collect the same for its own use and the use of its successors, assigns and legal representatives, and including the right to claim such priority or benefit and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said improvements or resulting therefrom to said assignee herein, as assignee of the entire interest therein; and the undersigned for me and my legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all original, divisional, continuation, reissue and other applications for Letters Patent on said improvements and all assignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts known to the undersigned respecting said improvements, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to aid assignee, its successors, assigns and nominees to obtain patent protection for said improvements in all countries, the expenses incident to said applications to be borne and paid by said assignee.

And I do hereby authorize my attorneys to insert on this deed the filing date and application number of said application when known.

January 13, 2012

Date

Y. H. Kwon

KWON, Yo-Han

SONG

SONG, Mi-ran

Typed Name of Witness

Total of 1 forms are submitted.

**ASSIGNMENT OF PATENT APPLICATION**

Docket Number (Optional)

LGCHEM

Whereas, I, KIM, Je-Young of

103-1708, Expo Apt., Jeonmin-dong, Yuseong-gu, Daejeon 305-761 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**

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And

Whereas, LG Chem, Ltd.
 a corporation of Korea, Republic of herein referred to as "assignee" whose mailing address is  
20, Yoido-dong, Youngdungpo-gu, Seoul 150-721 REPUBLIC OF KOREA

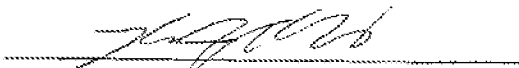
is desirous of acquiring the entire right, title and interest in the same;

NOW, THEREFORE, in consideration of the sum of one dollars (\$ 1.00 ), the receipt whereof is acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set over to said assignee my entire right, title and interest for the United States of America and all other countries in and to said invention and the aforesaid utility patent application and all original, divisional, continuation, substitute or reissue applications and patents applied for or granted therefor in the United States of America and all other countries, for said invention, including without limitation all applications and patents for said invention claiming priority or benefit of the aforesaid utility application pursuant to any law or treaty, and including all claims for damages by reason of past infringement with the right to sue for and collect the same for its own use and the use of its successors, assigns and legal representatives, and including the right to claim such priority or benefit and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said improvements or resulting therefrom to said assignee herein, as assignee of the entire interest therein; and the undersigned for me and my legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all original, divisional, continuation, reissue and other applications for Letters Patent on said improvements and all assignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts known to the undersigned respecting said improvements, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to aid assignee, its successors, assigns and nominees to obtain patent protection for said improvements in all countries, the expenses incident to said applications to be borne and paid by said assignee.

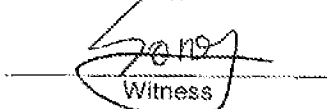
And I do hereby authorize my attorneys to insert on this deed the filing date and application number of said application when known.

January 13, 2012

Date



KIM, Je-Young



Witness

SONG, Mi-Ran

Typed Name of Witness

 \*Total of 2 forms are submitted.


ASSIGNMENT OF PATENT APPLICATION

Docket Number (Optional)

LGCHEM

Whereas, I, LEE, Sang-Young of 307-1004, Hyundai 3 Cha Apt., Seoksa-dong, Chuncheon-si, Gangwon-do 200-767 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 13/353,690 Application Number

for which an application for a United States Letters Patent was executed by me on

for which an International Application was filed on June 14, 2011, as

PCT/KR2011/004337, designating the United States.

And

Whereas, LG Chem, Ltd.

a corporation of Korea, Republic of herein referred to as "assignee" whose mailing address is 20, Yoido-dong, Youngdungpo-gu, Seoul 150-721 REPUBLIC OF KOREA

is desirous of acquiring the entire right, title and interest in the same;

NOW, THEREFORE, in consideration of the sum of one dollars (\$ 1.00 ), the receipt whereof is acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set over to said assignee my entire right, title and interest for the United States of America and all other countries in and to said invention and the aforesaid utility patent application and all original, divisional, continuation, substitute or reissue applications and patents applied for or granted therefor in the United States of America and all other countries, for said invention, including without limitation all applications and patents for said invention claiming priority or benefit of the aforesaid utility application pursuant to any law or treaty, and including all claims for damages by reason of past infringement with the right to sue for and collect the same for its own use and the use of its successors, assigns and legal representatives, and including the right to claim such priority or benefit and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said improvements or resulting therefrom to said assignee herein, as assignee of the entire interest therein; and the undersigned for me and my legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all original, divisional, continuation, reissue and other applications for Letters Patent on said improvements and all assignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts known to the undersigned respecting said improvements, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to aid assignee, its successors, assigns and nominees to obtain patent protection for said improvements in all countries, the expenses incident to said applications to be borne and paid by said assignee.

And I do hereby authorize my attorneys to insert on this deed the filing date and application number of said application when known.

1, 13, 2012  
Date

[Signature]  
LEE, Sang-Young

[Signature]  
Witness

SONG, Mi-ran  
Typed Name of Witness

\*Total of 3 forms are submitted.

**ASSIGNMENT OF PATENT APPLICATION**

Docket Number (Optional)

LGCHEM

Whereas, I, OH, Byung-Hun of202-504, Ggumnamu Apt., Dunsan-dong, Seo-gu, Daejeon 302-120 Republic of Koreahereafter 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** for which an application for a United States Letters Patent was filed on January 19, 2012Application Number 13/353,690 for which an application for a United States Letters Patent was executed by me on \_\_\_\_\_ for which an International Application was filed on June 14, 2011, asPCT/KR2011/004337, designating the United States.

And

Whereas, LG Chem, Ltd.a corporation of Korea, Republic of herein referred to as "assignee" whose mailing address is20, Yoido-dong, Youngdungpo-gu, Seoul 150-721 REPUBLIC OF KOREA

is desirous of acquiring the entire right, title and interest in the same;

NOW, THEREFORE, in consideration of the sum of one dollars (\$ 1.00 ), the receipt whereof is acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set over to said assignee my entire right, title and interest for the United States of America and all other countries in and to said invention and the aforesaid utility patent application and all original, divisional, continuation, substitute or reissue applications and patents applied for or granted therefor in the United States of America and all other countries, for said invention, including without limitation all applications and patents for said invention claiming priority or benefit of the aforesaid utility application pursuant to any law or treaty, and including all claims for damages by reason of past infringement with the right to sue for and collect the same for its own use and the use of its successors, assigns and legal representatives, and including the right to claim such priority or benefit and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said improvements or resulting therefrom to said assignee herein, as assignee of the entire interest therein; and the undersigned for me and my legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all original, divisional, continuation, reissue and other applications for Letters Patent on said improvements and all assignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts known to the undersigned respecting said improvements, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to aid assignee, its successors, assigns and nominees to obtain patent protection for said improvements in all countries, the expenses incident to said applications to be borne and paid by said assignee.


And I do hereby authorize my attorneys to insert on this deed the filing date and application number of said application when known.

January 13, 2012

Date



OH, Byung-Hun



Witness

SONG, Mi-Ran

Typed Name of Witness

 \*Total of 4 forms are submitted.

PATENT LG Chem

2011.12.14 14:19:52

REEL: 036630 FRAME: 0212



ASSIGNMENT OF PATENT APPLICATION

Docket Number (Optional)

LGCHEM

Whereas, I, KIM, Ki-Tae of 601-601, Unam Neomia, Gwanpyeong-dong, Yuseong-gu, Daejeon 305-746 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 January 19, 2012 Application Number 13/353,690

for which an application for a United States Letters Patent was executed by me on \_\_\_\_\_

for which an International Application was filed on June 14, 2011, as PCT/KR2011/004337, designating the United States.

And

Whereas, LG Chem, Ltd. a corporation of Korea, Republic of herein referred to as "assignee" whose mailing address is 20, Yoido-dong, Youngdungpo-gu, Seoul 150-721 REPUBLIC OF KOREA is desirous of acquiring the entire right, title and interest in the same;

NOW, THEREFORE, in consideration of the sum of one dollars (\$ 1.00 ), the receipt whereof is acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set over to said assignee my entire right, title and interest for the United States of America and all other countries in and to said invention and the aforesaid utility patent application and all original, divisional, continuation, substitute or reissue applications and patents applied for or granted therefor in the United States of America and all other countries, for said invention, including without limitation all applications and patents for said invention claiming priority or benefit of the aforesaid utility application pursuant to any law or treaty, and including all claims for damages by reason of past infringement with the right to sue for and collect the same for its own use and the use of its successors, assigns and legal representatives, and including the right to claim such priority or benefit and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said improvements or resulting therefrom to said assignee herein, as assignee of the entire interest therein; and the undersigned for me and my legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all original, divisional, continuation, reissue and other applications for Letters Patent on said improvements and all assignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts known to the undersigned respecting said improvements, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to aid assignee, its successors, assigns and nominees to obtain patent protection for said improvements in all countries, the expenses incident to said applications to be borne and paid by said assignee.

And I do hereby authorize my attorneys to insert on this deed the filing date and application number of said application when known.

January 13 2012  
Date

[Signature]  
KIM, Ki-Tae

[Signature]  
Witness

SONG, Mi-Ran  
Typed Name of Witness

\*Total of 5 forms are submitted.

ASSIGNMENT OF PATENT APPLICATION

Docket Number (Optional)

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 certain new and useful improvements in  
ELECTROLYTE FOR ELECTROCHEMICAL DEVICE, METHOD FOR PREPARING THE  
ELECTROLYTE AND ELECTROCHEMICAL DEVICE INCLUDING THE ELECTROLYTE

- for which an application for a United States Letters Patent was filed on January 19, 2012  
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- for which an application for a United States Letters Patent was executed by me on \_\_\_\_\_
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And

Whereas, LG Chem, Ltd.  
a corporation of Korea, Republic of herein referred to as "assignee" whose mailing address is  
20, Yoido-dong, Youngdungpo-gu, Seoul 150-721 REPUBLIC OF KOREA  
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NOW, THEREFORE, in consideration of the sum of one dollars (\$ 1.00 ), the receipt whereof is acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set over to said assignee my entire right, title and interest for the United States of America and all other countries in and to said invention and the aforesaid utility patent application and all original, divisional, continuation, substitute or reissue applications and patents applied for or granted therefor in the United States of America and all other countries, for said invention, including without limitation all applications and patents for said invention claiming priority or benefit of the aforesaid utility application pursuant to any law or treaty, and including all claims for damages by reason of past infringement with the right to sue for and collect the same for its own use and the use of its successors, assigns and legal representatives, and including the right to claim such priority or benefit and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said improvements or resulting therefrom to said assignee herein, as assignee of the entire interest therein; and the undersigned for me and my legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all original, divisional, continuation, reissue and other applications for Letters Patent on said improvements and all assignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts known to the undersigned respecting said improvements, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to aid assignee, its successors, assigns and nominees to obtain patent protection for said improvements in all countries, the expenses incident to said applications to be borne and paid by said assignee.

And I do hereby authorize my attorneys to insert on this deed the filing date and application number of said application when known.

1. 13. 2012  
Date

[Signature]  
HA, Hyo-Jeong

[Signature]  
Witness

SONG, Mi-Ran  
Typed Name of Witness

\*Total of 6 forms are submitted.

PATENT