

Form PTO-1595 (Rev. 07/04)
OMB No. 0651-0027 (exp. 6/30/2005)

U.S. DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

RECORDATION FORM COVER SHEET PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)/Execution Date(s):
 SANG-YOUNG LEE (07/07/2010),
 SEOK-KOO KIM (07/07/2010),
 JONG-HUN KIM (07/07/2010), AND
 JANG-HYUK HONG (07/07/2010)

Execution Date(s) in parentheses after inventor name

Additional name(s) of conveying party(ies) attached? Yes No

2. Name and address of receiving party(ies)

Name: LG CHEM, LTD.
 Internal Address: _____
 Street Address: _____
 LG TWIN TOWERS
 20, YEQUIDO-DONG
 YEONGDEUNGPO-GU
 City: SEOUL
 State: _____
 Country: REPUBLIC OF KOREA Zip: 150-721
 Additional name(s) & address(es) attached? Yes No

3. Nature of Conveyance:

Assignment Merger
 Security Agreement Change of Name
 Government Interest Assignment
 Executive Order 9424, Confirmatory License
 Other _____

4. Application or patent number(s):

A. Patent Application No.(s)
12/864,734

B. Patent No.(s)

Additional numbers attached? Yes No

This document is being filed together with a new application

5. Name and address to whom correspondence concerning document should be mailed:

Name: Kelly Y. Hwang
LERNER, DAVID, LITTENBERG,
KRUMHOLZ & MENTLIK, LLP

Internal Address, Atty. Dkt.: LGCHEM 3.3-154

Street Address: 600 South Avenue West

City: Westfield
 State: NJ Zip: 07090
 Phone Number: (908) 518-6320
 Fax Number: (908) 654-0415
 Email Address: khwang@ldlkm.com

6. Total number of applications and patents involved:

7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00

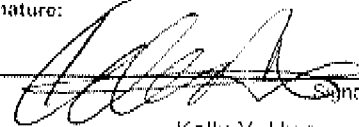
Authorized to be charged by credit card
 Authorized to be charged to deposit account
 Enclosed
 None required (government interest not affecting title)

8. Payment Information

a. Credit Card Last 4 Numbers _____
 Expiration Date _____

b. Deposit Account Number 12-1095
 Authorized User Name Kelly Y. Hwang

9. Signature:

 _____
 Signature Date July 28, 2010

Kelly Y. Hwang - 51,831
 Name of Person Signing

Total number of pages including cover sheet, attachments, and documents:

CHI \$40.00 121095 12864734

former PTO/SB/15 (6-00) Revised LDLKM

ASSIGNMENT OF PATENT APPLICATION	Docket Number (Optional) LGCHEM
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Whereas, I, LEE, Sang-Young of

103-904, 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
SEPARATOR FOR PROGRESSING UNITED FORCE TO ELECTRODE AND ELECTROCHEMICAL CONTAINING THE SAME

- for which an application for a United States Letters Patent was filed on 07/27/2010
Application Number 12/864,734
- for which an application for a United States Letters Patent was executed by me on _____
- for which an International Application was filed on January 14, 2009 as
PCT/KR2009/000186 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.

Jul - 27 - 2010
Date

[Signature]
LEE, Sang-Young


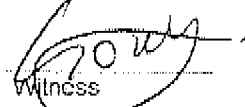
[Signature]
Witness
SONG, MI-Ran
Typed Name of Witness

Total of 1 forms are submitted.

LDLKM

COMPUTERIZED ASSIGNMENT

Former PTO/SB/15 (8-00) Modified LDLKM

ASSIGNMENT OF PATENT APPLICATION	Docket Number (Optional) LGCHEM
Whereas, I, <u>KIM, Seok-Koo</u> of	
317-8, Jangdae-dong, Yusong-gu, Daejeon 305-308 Republic of Korea	
hereafter referred to as assignor, have with others invented certain new and useful improvements in SEPARATOR FOR PROGRESSING UNITED FORCE TO ELECTRODE AND ELECTROCHEMICAL CONTAINING THE SAME	
<input checked="" type="checkbox"/> for which an application for a United States Letters Patent was filed on <u>07/27/2010</u> Application Number <u>12/864,734</u>	
<input type="checkbox"/> for which an application for a United States Letters Patent was executed by me on _____	
<input checked="" type="checkbox"/> for which an International Application was filed on <u>January 14, 2009</u> , as <u>PCT/KR2009/000186</u> , designating the United States.	
And	
Whereas, <u>LG Chem, Ltd.</u>	
a corporation of <u>Korea, Republic of</u> herein referred to as "assignee" whose mailing address is <u>20, Yoido-dong, Youngdungpo-gu, Seoul 150-721 REPUBLIC OF KOREA</u> is desirous of acquiring the entire right, title and interest in the same;	
NOW, THEREFORE, in consideration of the sum of <u>one</u> dollars (\$ <u>1.00</u>), 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.	
<u>July 17, 2010</u> Date	 KIM, Seok-Koo
 Witness	
<u>SONG, Mi-Ran</u> Typed Name of Witness	
<input checked="" type="checkbox"/> *Total of <u>2</u> forms are submitted.	

LD-515

GVP102419US_ASSIGNMENT.DOC

former PTO/SB/15 (8-00) Modified 1 01 K&M

ASSIGNMENT OF PATENT APPLICATION	Docket Number (Optional) LGCHEM
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Whereas, I, KIM, Jong-Hun of
218-1002, Saemneori Apt., Dunsan-dong, Seo-gu, Daejeon 302-120 Republic of Korea

hereafter referred to as assignor, have with others invented certain new and useful improvements in
**SEPARATOR FOR PROGRESSING UNITED FORCE TO ELECTRODE AND
ELECTROCHEMICAL CONTAINING THE SAME**

for which an application for a United States Letters Patent was filed on 07/27/2010
Application Number 12/864,734

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

for which an International Application was filed on January 14, 2009, as
PCT/KR2009/000186, 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.

7/27/2010
Date

[Signature]
KIM, Jong-Hun

[Signature]
Witness

SONG, Mi-Ran
Typed Name of Witness

*Total of 3 forms are submitted.



FD-515

PATENT LGChem



REEL: 024757 FRAME: 0599

former PTO/SB/15 (B-G) Modified LDI K&M

ASSIGNMENT OF PATENT APPLICATION	Docket Number (Optional) LGCHEM
<p>Whereas, I, <u>HONG, Jang-Hyuk</u> of <u>1, Gyeonlip, LG Chemical Employee Apt., Doryong-dong, Yuseong-gu, Daejeon 305-340</u> <u>Republic of Korea</u></p>	
<p>hereafter referred to as assignor, have with others invented certain new and useful improvements in <u>SEPARATOR FOR PROGRESSING UNITED FORCE TO ELECTRODE AND</u> <u>ELECTROCHEMICAL CONTAINING THE SAME</u></p>	
<p><input checked="" type="checkbox"/> for which an application for a United States Letters Patent was filed on <u>07/27/2010</u> Application Number <u>12/864,734</u></p>	
<p><input type="checkbox"/> for which an application for a United States Letters Patent was executed by me on _____</p>	
<p><input checked="" type="checkbox"/> for which an International Application was filed on <u>January 14, 2009</u>, as <u>PCT/KR2009/000186</u>, designating the United States.</p>	
<p>And</p>	
<p>Whereas, <u>LG Chem, Ltd.</u> a corporation of <u>Korea, Republic of</u> herein referred to as "assignee" whose mailing address is <u>20, Yoido-dong, Youngdungpo-gu, Seoul 150-721 REPUBLIC OF KOREA</u> is desirous of acquiring the entire right, title and interest in the same;</p>	
<p>NOW, THEREFORE, in consideration of the sum of <u>one</u> dollars (\$ <u>1.00</u>), 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.</p>	
<p>And I do hereby authorize my attorneys to insert on this deed the filing date and application number of said application when known</p>	
<p><u>7/27/2010</u> Date</p>	<p> HONG, Jang-Hyuk</p>
<p> Witness</p>	
<p><u>SONG, Mi-Ran</u> Typed Name of Witness</p>	
<p><input checked="" type="checkbox"/> *Total of <u>4</u> forms are submitted.</p>	


PATENT