

Form PTO-1595 (Rev. 09/04)  
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):

PIL-KYU PARK (06/27/2011), JONG-HUN KIM  
(06/27/2011), SOON-HO AHN (06/27/2011),  
AND JE-YOUNG KIM (06/27/2011)

Execution Date(s): in parentheses after inventor name

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

### 3. Nature of Conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Government Interest Assignment  
☐ Executive Order 9424, Confirmatory License  
☐ Other \_\_\_\_\_

### 2. Name and address of receiving party(ies)

Name: LG CHEM, LTD.

Internal Address: \_\_\_\_\_

Street Address: \_\_\_\_\_

LG TWIN TOWERS  
20, YEOUIDO-DONG  
YEONGDEUNGPO-GU

City: SEOUL

State: \_\_\_\_\_

Country: Republic of Korea Zip: 150-721

Additional name(s) & address(es) attached? ☐ Yes ☒ No

### 4. Application or patent number(s):

A. Patent Application No.(s)

13/173,902

☐ This document is being filed together with a new application.

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

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

Name: Nicole Ho  
LERNER, DAVID, LITTENBERG,  
KRUMHOLZ & MENTLIK, LLP

Internal Address: Atty. Dkt.: LGCHEM 3.9-173 CON

Street Address: 600 South Avenue West

City: Westfield

State: NJ Zip: 07090

Phone Number: (908) 654-5000

Fax Number: (908) 654-0415

Email Address: \_\_\_\_\_

### 6. Total number of applications and patents involved:

1

### 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 Nicole Ho

### 9. Signature:



Signature

July 1, 2011

Date

Nicole Ho - 64,482  
Name of Person Signing

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

<p style="font-size: small; margin: 0;">former PTO/SB/15 (8-00) Modified LDI.K&amp;M</p> <p style="margin: 0;"><b>ASSIGNMENT OF PATENT APPLICATION</b></p>	<p style="margin: 0;">Docket Number (Optional)</p> <p style="margin: 0;">LGCHEM 3.9-173 CON</p>
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Whereas, I, PARK, Pil-Kyu of

135-11, Sanseong-dong, Jung-gu, Daejeon, 301-817 Republic of Korea

hereafter referred to as assignor, have with others invented certain new and useful improvements in

**SEPARATOR INCLUDING POROUS COATING LAYER AND ELECTROCHEMICAL DEVICE**

**INCLUDING THE SAME**

☐ for which an application for a United States Letters Patent was filed on \_\_\_\_\_

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 December 15, 2009, as

PCT/KR2009/007505, 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

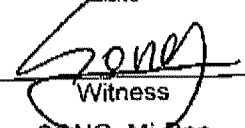
is desirous of acquiring the entire right, title and interest in the same;

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.

June 27, 2011


Date



Witness

SONG, MI-Ran

Typed Name of Witness



PARK, Pil-Kyu

☒ \*Total of 1 forms are submitted.



U.S. PATENT AND TRADEMARK OFFICE



former PTO/SB/15 (8-00) Modified LDLK&amp;M

<b>ASSIGNMENT OF PATENT APPLICATION</b>	Docket Number (Optional) LGCHEM 3.9-173 CON
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Whereas, I, KIM, Jong-Hun of

218-1002, Saemmeori 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 INCLUDING POROUS COATING LAYER AND ELECTROCHEMICAL DEVICE INCLUDING THE SAME**

☐ for which an application for a United States Letters Patent was filed on \_\_\_\_\_  
 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 December 15, 2009, as  
PCT/KR2009/007505, 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.

June 21, 2011

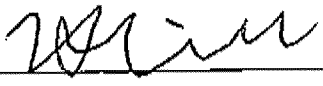
Date

SONG, MI-Ran

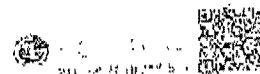
Witness

SONG, MI-Ran

Typed Name of Witness



KIM, Jong-Hun

☒ \*Total of 2 forms are submitted.


<b>ASSIGNMENT OF PATENT APPLICATION</b>	Docket Number (Optional) <b>LGCHEM 3.9-173 CON</b>
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Whereas, I, AHN, Soon-Ho of  
108-502, Daelim Dure Apt., Sinseong-dong, Yuseong-gu, Daejeon 305-720 Republic of Korea

hereafter referred to as assignor, have with others invented certain new and useful improvements in  
**SEPARATOR INCLUDING POROUS COATING LAYER AND ELECTROCHEMICAL DEVICE INCLUDING THE SAME**

☐ for which an application for a United States Letters Patent was filed on \_\_\_\_\_  
 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 December 15, 2009, as  
PCT/KR2009/007505, designating the United States.

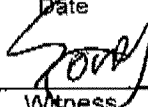
And

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;

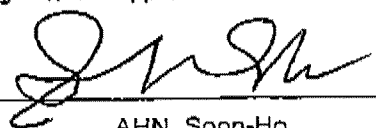
NOW, THEREFORE, in consideration of the sum of one dollars (\$ 1.00 ), the receipt whereof is acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set over to said assignee my entire right, title and interest for the United States of America and all other countries 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.

June 27, 2011  
 Date

  
 Witness

SONG, Mi-Ran  
 Typed Name of Witness

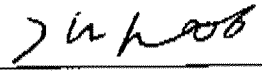

  
 AHN, Soon-Ho

☒ \*Total of 3 forms are submitted.



(Official Seal of the United States Patent and Trademark Office)



<b>ASSIGNMENT OF PATENT APPLICATION</b>	Docket Number (Optional) LGCHEM 3.9-173 CON
<p>Whereas, I, <u>KIM, Je-Young</u> of</p> <p>103-1708, Expo Apt., Jeonmin-dong, Yuseong-gu, Daejeon 305-761 Republic of Korea</p> <p>hereafter referred to as assignor, have with others invented certain new and useful improvements in</p> <p><b>SEPARATOR INCLUDING POROUS COATING LAYER AND ELECTROCHEMICAL DEVICE INCLUDING THE SAME</b></p> <p> <input type="checkbox"/> for which an application for a United States Letters Patent was filed on _____  Application Number _____ </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>December 15, 2009</u>, as  <u>PCT/KR2009/007505</u>, designating the United States. </p> <p>And</p> <p>Whereas, <u>LG Chem, Ltd.</u></p> <p>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></p> <p>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> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="text-align: center;"> <u>June 27, 2011</u>  Date </div> <div style="text-align: center;">   KIM, Je-Young </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="text-align: center;">   WITNESS  SONG, Mi-Ran  Typed Name of Witness </div> </div>	
<input checked="" type="checkbox"/> *Total of 4 forms are submitted.	

