502061977 09/14/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|----------------|----------------|
| Cheol-Hee Park | 05/23/2012 |
| Tae-Hoon Kim | 05/23/2012 |

RECEIVING PARTY DATA

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| State/Country: | KOREA, REPUBLIC OF |
| Postal Code: | 150-721 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 13616494 |

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| ATTORNEY DOCKET NUMBER: | 3570-233 |
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Total Attachments: 2

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> PATENT REEL: 028972 FRAME: 0879

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| Attorney Docket No.: | |
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by

Rothwell, Figg, Ernst & Manbeck, P.C.

ASSIGNMENT BY INVENTOR(S) OF PATENT APPLICATION FOR ALL COUNTRIES

IN CONSIDERATION of good and valuable consideration paid to the undersigned inventor(s) (hereinafter ASSIGNOR(S))

Name: LG Chem, Ltd.

Address: 128, Yeoui-daero, Youngdungpo-gu, Seoul 150-721, Republic of Korea

(hereinafter ASSIGNEE), the receipt and adequacy of which hereby acknowledged, ASSIGNOR(S) hereby sell(s), assign(s) and transfer(s) to ASSIGNEE all of his/her right, title and interest in, to and under the invention and application entitled: for which application for Letters Patent of the United States ASSIGNOR(S) is/are the sole or a joint inventor and which application is identified herein and/or is further identified as follows

U.S. Serial No. or PCT Appln. No.: PCT/KR2012/003740, Filing Date: May 11, 2012 (Rothwell, Figg, Ernst & Manbeck is hereby authorized to insert the series code, serial or application number and/or filing date hereon, when known)

and all Letters Patent of the United States to be obtained on said application or any continuation, division, reissue, reexamination or extension thereof and all rights connected therewith, and all applications for Letters Patent which may hereafter be filed for said invention in any country or countries foreign to the United States, and all Letters Patent which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof and all rights of priority in any such country or countries based upon the filing of the said application for Letters Patent of the United States which are created by any law, treaty or international convention, for the full term or terms for which the same may be granted, including all rights to recover damages for any and all past infringement; and

ASSIGNOR(S) agree(s) to execute all papers necessary in connection with said application and any continuing, divisional, reissue or reexamination applications thereof and to execute separate assignments in connection with such applications as ASSIGNEE may deem necessary.

ASSIGNOR(S) agree(s) to execute all papers necessary in connection with any interference, litigation, or other legal proceeding which may be declared concerning this application or any continuation, division, reissue or reexamination thereof or Letters Patent, reissue patent or reexamination certificate issued thereon and to cooperate with ASSIGNEE in every way possible in obtaining and producing evidence and proceeding with such interference, litigation, or other legal proceeding.

ASSIGNOR(S) covenant(s) that he/she has the full right to convey the entire interest herein assigned and has not executed, and will not execute, any agreement in conflict herewith.

ASSIGNOR(S) acknowledge(s) that ASSIGNEE may appoint any attorney or practitioner of ASSIGNEE'S choice to prosecute any application or other legal proceeding involving said invention and ASSIGNOR(S) further acknowledge(s) that any attorney or practitioner so appointed by ASSIGNEE does not represent ASSIGNOR(S) and that such appointment by ASSIGNEE does not create any attorney-client relationship between ASSIGNOR(S) and any attorney or practitioner appointed by ASSIGNEE.

IN WITNESS WHEREOF, the undersigned ASSIGNOR(S) has/ have affixed his/her signature below.

| Signature: | 11/4 | Date: May 23, 201 | Z |
|------------|---------------------|-------------------|---|
| Typed Nan | ne: PARK, Cheol-Hee | | |
| Signature: | K | Date: ۲۵۲ کا محل | |
| Typed Nan | ne: KIM, Tae-Hoon | | _ |

| WITNESSES: (optional |) | |
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| Signature: | Kim | Date: May 23, 20/2 |
| Typed Name: | KIM, Hyang-671 | |
| Signature: | Donk. | Date: May 13, 2012 |
| Typed Name: | PAAK, Soong-Hye | |
| NO LEGALIZATION RE | EQUIRED. THIS DOCUMENT MAY | BE NOTARIZED IF DESIRED FOR FURTHER PROOF O |

RECORDED: 09/14/2012