PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT2769026

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

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------|----------------|
| YO-HAN KWON | 11/11/2013 |
| BYUNG-HUN OH | 11/11/2013 |
| JE-YOUNG KIM | 11/11/2013 |
| HEON-CHEOL SHIN | 02/24/2014 |

RECEIVING PARTY DATA

| Name: | LG CHEM, LTD. |
|-------------------|--------------------|
| Street Address: | 128, YEOUI-DAERO |
| Internal Address: | YOUNGDUNGPO-GU |
| City: | SEOUL |
| State/Country: | KOREA, REPUBLIC OF |
| Postal Code: | 150-721 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 14207951 |

CORRESPONDENCE DATA

Fax Number: (908)654-0415

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via

US Mail.

Phone: (908) 518-6341

Email: Assignment@ldlkm.com

Correspondent Name: LDLK&M

Address Line 1: 600 SOUTH AVENUE WEST

Address Line 4: WESTFIELD, NEW JERSEY 07090

| TTORNEY DOCKET NUMBER: LGCHEM 3.9-438 CON | |
|--|-------------|
| NAME OF SUBMITTER: | NICOLE HO |
| SIGNATURE: | /Nicole Ho/ |
| DATE SIGNED: | 03/14/2014 |
| This document serves as an Oath/Declaration (37 CFR 1.63). | |

Total Attachments: 4

source=Assignment LGCHEM 3.9-438 CON#page1.tif

502722422 REEL: 032440 FRAME: 0754

PATENT

source=Assignment LGCHEM 3.9-438 CON#page2.tif source=Assignment LGCHEM 3.9-438 CON#page3.tif source=Assignment LGCHEM 3.9-438 CON#page4.tif

> PATENT REEL: 032440 FRAME: 0755

| tuttette | ····· | · . | |
|--|--|--|--|
| , | ON AND ASSIGNMENT FOR R DESIGN APPLICATIONS | Attorney Docket Number: | |
| Title of Invention | CABLE-TYPE SECONDARY BATTE | RY | |
| | | nated as the undersigned), I/We hereby declare that: | |
| This declara is directed to | | Accountaine | |
| | The attached application, or | | |
| | X United States application or PCT int | ternational application number PCT/KR2012/008402 | |
| | filed on October 15, 2012 | - | |
| The above-identifie | ed application was made or authorized to | o be made by me/us. | |
| IWe believe that I | am the original inventor or an original jo | int inventor of a claimed invention in the application. | |
| I/We hereby ackno by fine or imprison | wledge that any willful false statement n ment of not more than five (5) years, or I | made in this declaration is punishable under 18 U.S.C. 1001 both. | |
| WHEREAS, the ur listed below) has it | idersigned as a sole inventor (if only or invented certain new and useful improv | ne name is listed below) or as a joint inventor (if plural names are ements in the application identified above. | |
| 128, Yeoui-daero, | AND, WHEREAS LG Chem, Ltd., (hereinafter referred to as assignee), a corporation of Korea whose mailing address is 128, Yeoui-daero, Youngdungpo-gu; Seoul; REPUBLIC OF KOREA 150-721 is desirous of acquiring the entire right, title and interest in the same. | | |
| NOW, THEREFORE, in consideration of the sum of one dollar, the receipt wherof is acknowledged, and other good and valuable consideration, the undersigned hereby sell(s), assign(s) and set(s) over to said assignee my/our 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/us and my/our 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 e | | | |
| And I do hereby au known. | athorize my attorneys to insert on this d | deed the filing date and application number of said application when | |
| FULL NAME | OF INVENTOR(S) | | |
| Inventor one | : KWON, Yo-Han | Date: Nov. 11, 2,013 | |
| Signature: | X H Xia | | |
| X Addition | nal inventors or a legal representative are be | eing named on 1 additional form(s) attached hereto. | |



PLEASE SEE THE WARNINGS ON THE LAST PAGE OF THIS FORM.

DECLARATION AND ASSIGNMENT FOR UTILITY ADDITIONAL INVENTOR(S) OR DESIGN APPLICATIONS Supplemental Sheet Date: November 11, 2013 Inventor two: OH, Byung-Hun Signature: inventor three: KIM, Je-Young Date: Nov. 11, 2013 Signature: Inventor four: SHIN, Heon-Cheol Date: Signature: Inventor five: Date: ____ Signature: Inventor six: Date: Signature: Inventor seven: Date: Signature: Inventor eight: Date: Signature: _ Inventor nine: Date: Signature: Inventor ten: Date: ____ Signature: WARNING: According to 37 C.F.R. 1.63 (c), "[a] person may not execute an oath or declaration unless the person has reviewed and understands the contents of the application, including the claims and is aware of the duty to disclose to the Office all information known to be material to

patentability as defined in 1.56."

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identify theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

| DECLARATION AND ASSIGNMENT FOR UTILITY OR DESIGN APPLICATIONS | | Attorney Docket Number: | |
|---|---|---|--|
| Title of Invention | CABLE-TYPE SECONDARY BATTE | RY | |
| This declars is directed to a directed to the | The attached application, or The attached application, or The attached application or PCT int filed on October 15, 2012 and application was made or authorized to am the original inventor or an original join whedge that any willful false statement in ment of not more than five (5) years, or indersigned as a sole inventor (if only or invented certain new and useful improve LG Chem, Ltd., (hereinafter referred to Youngdungpo-gu; Seoul; REPUBLIC Cosame. RE, in consideration of the sum of one cation, the undersigned hereby sell(s), as a United States of America and all other original, divisional, continuation, substituted States of America and all other course. | int inventor of a claimed invention in the application. Inade in this declaration is punishable under 18 U.S.C. 1001 both. The name is listed below) or as a joint inventor (if plural names are aments in the application identified above. As assignee), a corporation of Korea whose mailing address is DF KOREA 150-721 is desirous of acquiring the entire right, title declar, the receipt wherof is acknowledged, and other good and assign(s) and set(s) over to said assignee my/our entire right, title rountries in and to said invention and the aforesaid utility patent tute or reissue applications and patents applied for or granted intries, 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/us and my/our 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 at known. | ithorize my attorneys to insert on this d | eed the filing date and application number of said application when | |
| FULL NAME | OF INVENTOR(S) | | |
| Inventor one | KWON, Yo-Han | Date: | |
| Signature: | | | |
| X Addition | al inventors or a legal representative are be | ing named on additional form(s) attached hereto. | |
| PLEASE SE | EE THE WARNINGS ON THE LAST PAGE | OF THIS FORM. | |

| DECLARATION AND ASSIGNMENT FOR UTILITY OR DESIGN APPLICATIONS | ADDITIONAL INVENTOR(S) Supplemental Sheet | |
|--|---|--|
| Inventor two: OH, Byung-Hun Signature: | Date: | |
| inventor three: <u>KIM, Je-Young</u> Signature: | Date: | |
| Inventor four: SHIN, Heon-Cheol Signature: AG | Date: Feb. 24, 2014 | |
| Inventor five: Signature: | Date: | |
| Inventor six: Signature: | Date: | |
| Inventor seven: Signature: | Date: | |
| Inventor eight: Signature: | Date: | |
| Inventor nine: Signature: | Date: | |
| Inventor ten: Signature: | Date: | |
| According to 37 C.F.R. 1.63 (c), "[a] person may not execute an oath or declaration unless the person has reviewed and understands the contents of the application, including the claims and is aware of the duty to disclose to the Office all information known to be material to patentability as defined in 1.56." Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuence of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available. | | |

Page 2 of 2