PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5431394

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TEA GON KIM	03/08/2019
JE YOUNG KIM	03/08/2019
HAK YOON KIM	03/08/2019
KI WON SUNG	03/11/2019
YE LIN KIM	03/11/2019
JOO YUL BAEK	03/11/2019
JUNG KEUN YOO	03/11/2019
JUN MUK LIM	03/11/2019
SEUL KI KIM	03/08/2019

RECEIVING PARTY DATA

Name:	LG CHEM, LTD.
Street Address:	128, YEOUI-DAERO
Internal Address:	YEONGDEUNGPO-GU
City:	SEOUL
State/Country:	KOREA, REPUBLIC OF
Postal Code:	07336

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16332611

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) 654-5000

Email: assignment@lernerdavid.com

Correspondent Name: LERNER, DAVID, LITTENBERG, KRUMHOLZ & MENTLIK, LLP

Address Line 1: 600 SOUTH AVENUE WEST

Address Line 4: WESTFIELD, NEW JERSEY 07090

ATTORNEY DOCKET NUMBER: LGCHEM 3.3F-1744

PATENT REEL: 048649 FRAME: 0138

505384601

NAME OF SUBMITTER:	CINDY CORB
SIGNATURE:	/Cindy Corb/
DATE SIGNED:	03/20/2019
Total Attachments: 4	
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PATENT REEL: 048649 FRAME: 0139

DECLARATION AND ASSIGNMENT FOR	Attorney Docket Number: LGCHEM 3.3F-1744	
UTILITY OR DESIGN APPLICATIONS	L HAVING EXCELLENT DISPERSIBILITY, SLURRY FOR FORMING	
Title of Invention LITHIUM SECONDARY BATTERY ELE	CTRODE USING THE SAME, AND LITHIUM SECONDARY BATTERY	
This declaration is directed to: The attached application, or	ernational application numberPCT/KR2018/006517	
filed onJune 8, 2018		
The above-identified application was made or authorized to	o be made by me/us.	
I/We believe that I am the original inventor or an original joint	int inventor of a claimed invention in the application.	
I/We hereby acknowledge that any willful false statement of the by fine or imprisonment of not more than five (5) years, or	nade in this declaration is punishable under 18 U.S.C. 1001 both.	
WHEREAS, the undersigned as a sole inventor (if only or listed below) has 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.	
AND, WHEREAS LG Chem, Ltd., (hereinafter referred to 128, Yeoul-daero; Yeongdeungpo-gu; Seoul; REPUBLIC interest in the same.	as assignee), a corporation of Korea whose mailing address is OF KOREA 07336 is desirous of acquiring the entire right, title and	
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		
According to 37 C.E.R. & 1.63(c), "[a] person may not execute a	WARNING: an oath or declaration unless the person has reviewed and understands the fithe duty to disclose to the Office all information known to the person to be	
FULL NAME OF INVENTOR(S)	Ma /	
Inventor one: Tea Gon Kim	Date:	
Signature: In Regar		
X Additional inventors or a legal representative are b	pelng named on additional form(s) attached hereto.	
PLEASE SEE THE WARNINGS ON THE LAST PAG	E OF THIS FORM.	

DECLARATION AND ASSIGNMENT FOR UTILITY OR DESIGN APPLICATIONS	ADDITIONAL INVENTOR(S) Supplemental Sheet
Inventor two:Je Young Klm	Date: March d, 20/9
Signature:	
Inventor three: Hak Yogʻn Kim Signature:	Date: March 8, 2019
Inventor four: Ki Won Sung	Date: Maich 11. 2019
Signature:	4
Inventor five: Ye Lin Kim Signature:	Date: March 11 . 2019
Inventor six: Joo Yul Baek Signature:	Date: March 11. 2019
Inventor seven: Jung Keun Yoo Signature:	Date:
Inventor eight: Jun Muk Lim	Date: March, 11, 2019
Signature:	
Inventor nine: Seul Ki Kim	Date: March 8, 2019
Signature: Sewbr.	
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 the person 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 theit. 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, petitioner/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 oredit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.	

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DECLARATION AND ASSIGNMENT FOR Attorney Docket Number: LGCHEM 3.3F-1744 UTILITY OR DESIGN APPLICATIONS COMPOSITE CONDUCTIVE MATERIAL HAVING EXCELLENT DISPERSIBILITY, SLURRY FOR FORMING Title of Invention LITHIUM SECONDARY BATTERY ELECTRODE USING THE SAME, AND LITHIUM SECONDARY BATTERY As the below named inventor(s) (hereinafter designated as the undersigned), I/We hereby declare that: This declaration is directed to: The attached application, or X United States application or PCT international application number PCT/KR2018/006517 filed on ___ June 8, 2018 The above-identified application was made or authorized to be made by me/us. I/We believe that I am the original inventor or an original joint inventor of a claimed invention in the application. I/We hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both. WHEREAS, the undersigned as a sole inventor (if only one name is listed below) or as a joint inventor (if plural names are listed below) has invented certain new and useful improvements in the application identified above. AND, WHEREAS LG Chem, Ltd., (hereinafter referred to as assignee), a corporation of Korea whose mailing address is 128, Yeoui-daero; Yeongdeungpo-gu; Seoul; REPUBLIC OF KOREA 07336 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 expenses incident to said applications to be borne and paid by said assignee. 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 the person to be material to patentability as defined in §1.56." FULL NAME OF INVENTOR(S) Date: ___ Tea Gon Kim Inventor one: Signature: additional form(s) attached hereto. X Additional inventors or a legal representative are being named on

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

SUPPLEMENTAL SHEE	Ŧ
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RECORDED: 03/20/2019

LGCHEM 3.3F-1744

DECLARATION AND ASSIGNMENT FOR UTILITY OR DESIGN APPLICATIONS	ADDITIONAL INVENTOR(S) Supplemental Sheet	
Inventor two: <u>Je Young Kim</u> Signature:	Date:	
Inventor three; <u>Hak Yoon Kim</u> Signature:	Date:	
Inventor four: <u>KI Won Sung</u> Signature:	Date:	
Inventor five: Ye Lin Klm Signature:	Date:	
Inventor six: <u>Joo Yul Baek</u> Signature:	Date:	
Inventor seven: <u>Jung Keun Yoo</u> Signature: <u>Jyy</u> w		
Inventor eight: <u>Jun Muk Lim</u> Signature:		
Inventor nine: <u>Seul Ki Kim</u> Signature:		
Inventor ten: Signature;	Date:	
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 the person 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, petitioner/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 ((inless 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 fif the application is referenced in a published application or an issued pate PTO-2038 submitted for payment purposes are not retained in the application.	from an abandoned application may also be available to the public int (see 37 CFR 1.14). Checks and credit card authorization forms	

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