505789863 11/25/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 EPAS ID: PAT5836691

Stylesheet Version v1.2

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
BAECK-BOEM CHOI	08/29/2019
CHA-HUN KU	09/02/2019
MIN-WOOK KIM	09/02/2019
SANG-KYUN LEE	08/29/2019

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:	16616201

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: 20 COMMERCE DRIVE

Address Line 4: CRANFORD, NEW JERSEY 07016

ATTORNEY DOCKET NUMBER: LGCHEM 3.3F-2362	
NAME OF SUBMITTER:	KATHLEEN REYNOLDS
SIGNATURE: /Kathleen Reynolds/	
DATE SIGNED:	11/25/2019

Total Attachments: 4

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PATENT REEL: 051101 FRAME: 0122 source=LGCHEM 3.3F-2362 Assignment#page2.tif source=LGCHEM 3.3F-2362 Assignment#page3.tif source=LGCHEM 3.3F-2362 Assignment#page4.tif

> PATENT REEL: 051101 FRAME: 0123

DECLARATION AND ASSIGNMENT FOR UTILITY OR DESIGN APPLICATIONS	Attorney Docket Number:	
Title of Invention LITHIUM METAL SECONDARY BAT	TERY AND MANUFACTURING METHOD THEREFOR	
As the below named inventor(s) (hereinafter designation is directed to:	nated as the undersigned), I/We hereby declare that:	
The attached application, or		
X United States application or PCT int	ternational application number PCT/KR2018/016540	
filed onDecember 21, 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 jo	int inventor of a claimed invention in the application.	
	nade in this declaration is punishable under 18 U.S.C. 1001	
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 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 sel(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 authorize my attorneys to insert on this d known.	leed the filing date and application number of said application when	
FULL NAME OF INVENTOR(S)		
Inventor one: CHOI, Baeck-Boem	Date: Ang 19 th 2019	
Signature:	_	
Additional inventors or a legal representative are be	ing named on 1 additional form(s) attached hereto.	
PLEASE SEE THE WARNINGS ON THE LAST PAGE	OF THIS FORM.	

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DECLARATION AND ASSIGNMENT FOR UTILITY OR DESIGN APPLICATIONS	ADDITIONAL INVENTOR(S) Supplemental Sheet
Inventor two: KU, Cha-Hun	Date: 18/07/02
Signature: _ Chahm Kn	
inventor three: KIM, Min-Wook	Date: 19/09/02
Signature: KM Min Wook	
Inventor four: LEE, Sang-Kyun	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 declarat contents of the application, including the claims and is aware of the duty to disclopatentability as defined in 1.56."	ion unless the person has reviewed and understands the see to the Office all information known to be material to
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 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.	

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	AND ASSIGNMENT FOR ESIGN APPLICATIONS	Attorney Docket Number:
Title of Invention LI	ITHIUM METAL SECONDARY BAT	TERY AND MANUFACTURING METHOD THEREFOR
This declaration is directed to:		nated as the undersigned), I/We hereby declare that:
	United States application or PCT inte	DOTAGE CONTRACTOR OF THE PROPERTY OF THE PROPE
	filed on December 21, 2018	ernational application number PCT/KR2018/016540
	application was made or authorized to	
I/We believe that I am	the original inventor or an original join	nt inventor of a claimed invention in the application.
I/We hereby acknowle by fine or imprisonmen	edge that any willful false statement m nt of not more than five (5) years, or b	nade in this declaration is punishable under 18 U.S.C. 1001 ooth.
WHEREAS, the unde listed below) has inve	rsigned as a sole inventor (if only on ented certain new and useful improve	e name is listed below) or as a joint inventor (if plural names are ements in the application identified above.
AND, WHEREAS LG 128, Yeoui-daero; Ye and interest in the sar	ongdeungpo-gu; Seoul; REPUBLIC (as assignee), a corporation of Korea whose mailing address is OF KOREA 07336 is desirous of acquiring the entire right, title
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 he 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 ex		
And I do hereby author known.	orize my attorneys to insert on this de	eed the filing date and application number of said application when
FULL NAME OF	FINVENTOR(S)	
Inventor one:	CHOI, Baeck-Boern	Date:
Signature:		
X Additional in	nventors or a legal representative are bei	ng named on1 additional form(s) attached hereto.
PLEASE SEE T	THE WARNINGS ON THE LAST PAGE (ÖF THIS FORM.

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2916788

DECLARATION AND ASSIGNMENT FOR UTILITY OR DESIGN APPLICATIONS	ADDITIONAL INVENTOR(S) Supplemental Sheet
Inventor two: KU, Cha-Hun	Date:
Signature:	
Inventor three: KIM, Min-Wook Signature:	Date:
Inventor four: LEE, Sang-Kyun	Date: August 29th, 2019
Inventor five: Signature:	
Inventor six: Signature:	Date:
Inventor seven: Signature:	Date:
Inventor eight: Signature:	Date:
Inventor nine: Signature:	Date:
Inventor ten: Signature:	Date:
WARNING: According to 37 C.F.R. 1.63 (c), "[a] person may not execute an oath or declars contents of the application, including the claims and is aware of the duty to discipatentability as defined in 1.56." Petitioner/applicant is cautioned to avoid submitting personal information in documidentity theft. Personal information such as social security numbers, bank accorded the card authorization form PTO-2038 submitted for payment purposes) is never not this type of personal information is included in documents submitted to the USPTO personal information from the documents before submitting them to the USPTO personal information from the documents before submitting them to the USPTO personal information or the public after publication of the application (unless a number in the application) or issuance of a patent. Furthermore, the record from a lift the application is referenced in a published application or an issued patent (se PTO-2038 submitted for payment purposes are not retained in the application file.)	nents filed in a patent application that may contribute to unt numbers, or credit card numbers (other than a check or required by the USPTO to support a petition or an application. If O, petitioners/applicants should consider redacting such Petitioner/applicant is advised that the record of a patent ion-publication request in compliance with 37 CFR 1.213(a) is an abandoned application may also be available to the public as 37 CFR 1.14). Chacks and credit card authorization forms