505939610 02/27/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5986329

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JAE HYUN KIM	02/11/2020
CHEOL HEE PARK	02/10/2020

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16642576

CORRESPONDENCE DATA

Fax Number: (703)205-8050

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: 7032058000

Email: mailroom@bskb.com, thuy-kim.t.nguyen@bskb.com

Correspondent Name: BIRCH STEWART KOLASH & BIRCH LLP Address Line 1: 8110 GATEHOUSE ROAD, SUITE 100E

Address Line 4: FALLSCHURCH, VIRGINIA 22042

ATTORNEY DOCKET NUMBER:	0808-0861PUS1
NAME OF SUBMITTER:	THUY-KIM T. NGUYEN
SIGNATURE:	/Thuy-Kim T. Nguyen/
DATE SIGNED:	02/27/2020

Total Attachments: 8

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> PATENT REEL: 051952 FRAME: 0881

SN: 16/642,576

Filing date: February 27, 2020 Attorney Docket No.: 0808-0861PUS1

COMBINED DECLARATION (37 CFR §1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM¹

The undersigned acknowledges that this document is being used both as an assignment of the invention and as the declaration (37 CFR 1.63) for a Utility or Design Application.

WHEREAS, the undersigned, hereinafter referred to collectively as Assignor, has invented:

TITLE: THERMOELECTRIC MODULE

for which Assignor is about to make or has made United States or International application for patent.

WHEREAS, as a below named inventor(s), I/(we) hereby declare that:

Section I. Declaration

This declaration is directed to:

	The attached U.S. non-provisional patent application, or	
	U.S. non-provisional patent application number, or	, filed on
**	PCT international patent application number PCT/KR2019/01 2019.	.0376, filed on <u>August 14,</u>
The above-i	dentified application was made or authorized to be made by me	(us).
	ve that I am (we are) the original inventor (original joint inventors dentified application.	s) of a claimed invention in
l (we) here	by acknowledge that any willful false statement made in this	declaration is punishable
I This form t	requires the use of an Application Data Sheet.	

REEL: 051952 FRAME: 0882

Attorney Ref No.

LG CHEM Ref No. P2018-1509PCUS (Portfolio: Thermoelectric Material)

under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

I hereby state that I have reviewed and understand the contents of the above identified application, including the claims.

I acknowledge that I am aware of the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56.

Section II. Assignment

In consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned, the undersigned hereby sell(s) and assign(s) to

LG CHEM, LTD.

having an address at 128, Yeoui-daero, Yeongdeungpo-gu, Seoul 07336, Republic of Korea (hereinafter designated as the Assignee(s)), the entire (100%) right, title and interest for the United States as defined in 35 USC §100, in the invention described in the application identified in Section I of this document.

Assignor hereby confirms any prior assignment to Assignee(s), and to the extent that Assignor has not already done so, agrees to assign, and hereby does, sell, assign and transfer unto Assignee(s) and its successors in interest, the full and exclusive right, title and interest in the United States of America and throughout the world, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the inventions as described in the aforesaid application, to the aforesaid application itself, and all divisions, continuations, continuations-in-part, or other applications claiming priority directly or indirectly from the aforesaid application, and any United States or foreign Letters Patent, utility model, or other similar rights which may be granted thereon, including reissues, reexaminations and extensions thereof, and all copyright rights throughout the world in the aforesaid application and the subject matter disclosed therein, these rights, title and interest to be held and enjoyed by Assignee(s) to the full end of the term for which the Letters Patent, utility model, or other similar rights, are granted and any extensions thereof as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made, and the right to sue for, and recover for past infringements of, or liabilities for, any of the rights relating to any of

LG CHEM Ref No. P2018-1509PCUS (Portfolio: Thermoelectric Material)

Attorney Ref No.



the applications, patents, utility models, or other similar rights, resulting therefrom, and the copyright rights;

Assignor hereby covenants and agrees to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent, utility model, or other similar rights, and for copyright, in the United States and in all foreign countries including, but not limited to, any provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, and as to letters patent any reissue, re-examination, or extension thereof, and for litigation regarding, or for the purpose of protecting title and to the said invention, the United States application for patent, or Letters Patent therefor, and to testify in support thereof, for the benefit of Assignee(s) without further or other compensation than that above set forth;

Assignor hereby covenants that no assignment, sale, license, agreement or encumbrance has been or will be entered into which would conflict with this Assignment; and

Assignor hereby requests the United States Patent and Trademark Office to issue the Letters Patent of the United States of America to Assignee(s), and requests that any official of any country or countries foreign to the United States, whose duty it is to issue or grant patents and applications as aforesaid, to issue the Letters Patent, Utility Model Registration or other similar right to Assignee(s).

The undersigned hereby grant(s) the law firm of **BIRCH**, **STEWART**, **KOLASCH & BIRCH**, **LLP** the power to insert on this Declaration and Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.5. Patent and Trademark Office for recordation of this document.

LG CHEM Ref No. P2018-1509PCUS (Portfolio: Thermoelectric Material)

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Atterney Ref No.

PATENT

PATENT SEGMENT REEL: 051952 FRAME: 0884

Section III. Inventor(s)/Assignor(s) Signature(s)

LEGAL NAME OF	Full Name Jaehyun KIM	
FIRST INVENTOR/ASSIGNOR		
SIGNATURE _	A4.	DATE 2020, 2, 11
•		

LEGAL NAME OF SECOND	Full Name
INVENTOR/ASSIGNOR	Cheol Hee PARK
SIGNATURE	DATE

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM

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PATENT SIGNER REEL: 051952 FRAME: 0885

SN: 16/642,576 Attorney Docket No.: 0808-0861PUS1

Filing date: February 27, 2020

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TITLE: THERMOELECTRIC MODULE

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The above-ide	entified application was made or authorized to be made by me (us) .
•	that I am (we are) the original inventor (original joint inventors) of entified application.	f a claimed invention in
I (we) hereby	acknowledge that any willful false statement made in this de	claration is punishable
1 This form reg	nuires the use of an Application Data Sheet.	

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Attorney Ref No.

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PATENT REEL: 051952 FRAME: 0886 under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

I hereby state that I have reviewed and understand the contents of the above identified application, including the claims.

I acknowledge that I am aware of the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56.

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Assignor hereby confirms any prior assignment to Assignee(s), and to the extent that Assignor has not already done so, agrees to assign, and hereby does, sell, assign and transfer unto Assignee(s) and its successors in interest, the full and exclusive right, title and interest in the United States of America and throughout the world, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the inventions as described in the aforesaid application, to the aforesaid application itself, and all divisions, continuations, continuations-in-part, or other applications claiming priority directly or indirectly from the aforesaid application, and any United States or foreign Letters Patent, utility model, or other similar rights which may be granted thereon, including reissues, reexaminations and extensions thereof, and all copyright rights throughout the world in the aforesaid application and the subject matter disclosed therein, these rights, title and interest to be held and enjoyed by Assignee(s) to the full end of the term for which the Letters Patent, utility model, or other similar rights, are granted and any extensions thereof as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made, and the right to sue for, and recover for past infringements of, or liabilities for, any of the rights relating to any of

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PATENT REEL: 051952 FRAME: 0887 the applications, patents, utility models, or other similar rights, resulting therefrom, and the copyright rights;

Assignor hereby covenants and agrees to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent, utility model, or other similar rights, and for copyright, in the United States and in all foreign countries including, but not limited to, any provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, and as to letters patent any reissue, re-examination, or extension thereof, and for litigation regarding, or for the purpose of protecting title and to the said invention, the United States application for patent, or Letters Patent therefor, and to testify in support thereof, for the benefit of Assignee(s) without further or other compensation than that above set forth;

Assignor hereby covenants that no assignment, sale, license, agreement or encumbrance has been or will be entered into which would conflict with this Assignment; and

Assignor hereby requests the United States Patent and Trademark Office to issue the Letters Patent of the United States of America to Assignee(s), and requests that any official of any country or countries foreign to the United States, whose duty it is to issue or grant patents and applications as aforesaid, to issue the Letters Patent, Utility Model Registration or other similar right to Assignee(s).

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Attorney Ref No.

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM
Page 3 of 4

Section III. Inventor(s)/Assignor(s) Signature(s)

LEGAL NAME OF	Full Name
FIRST INVENTOR/ASSIGNOR	Jaehyun KIM
SIGNATURE	OATE
LEGAL NAME OF	Full Name
SECONDINVENTOR/ASSIGNOR	Cheol Hee PARK
SIGNATURE/_	111/ DATE 10. Feb. 2020

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