### 505826205 12/17/2019

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

**SUBMISSION TYPE: NEW ASSIGNMENT NATURE OF CONVEYANCE: ASSIGNMENT** 

EPAS ID: PAT5873035

### **CONVEYING PARTY DATA**

Name	Execution Date
DAE HUN KIM	12/18/2018
AYOUNG LEE	12/24/2018
KYUNGHOON MIN	12/18/2018
BUMJOO KIM	11/25/2019
YE HOON IM	12/18/2018

### **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:	16623735	

### **CORRESPONDENCE DATA**

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Address Line 2: 4655 EXECUTIVE DRIVE, SUITE 700 Address Line 4: SAN DIEGO, CALIFORNIA 92121

ATTORNEY DOCKET NUMBER:	29137.02935.US00
NAME OF SUBMITTER:	FRANK J. MISKIEL
SIGNATURE:	/Frank J. Miskiel/
DATE SIGNED:	12/17/2019

**PATENT REEL: 051310 FRAME: 0409** 505826205

# Total Attachments: 6 source=2935-declaration-assignment#page1.tif source=2935-declaration-assignment#page2.tif source=2935-declaration-assignment#page3.tif source=2935-declaration-assignment#page4.tif source=2935-declaration-assignment#page5.tif

source=2935-declaration-assignment#page6.tif

PATENT REEL: 051310 FRAME: 0410

	ATION AND ASSIGNMENT FOR Y OR DESIGN APPLICATION	Attorney Docket Number: P2017-3278PCUS	
Title of Invent	ion: FEED SPACER AND REVERSE O	FEED SPACER AND REVERSE OSMOSIS FILTER MODULE INCLUDING SAME	
,	below-named inventor(s) (hereinafter designate	ed as the undersigned), I/We hereby declare that:	
	The attached application, or		
Ø	United States application or PCT internation filed on November 13, 2018.	al application number PCT/KR2018/013841	
mi	and the second of the second o	$(X, X) = \{x \in I\}$	

The above-identified application was made or authorized to be made by me/as.

I/We believe that I am/We are 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., ("assignee"), a corporation of Korea whose mailing address is 128, Yeomi-daero, Yeongdeungpo-gu, Seoul 07336, Republic of Korea, is desirous of acquiring the entire right, title, and interest in the same.

Now, in consideration of the sum of five dollars, and for other good and valuable consideration, the receipt whereof is hereby acknowledged, I/We, by these presents hereby agree to sell, assign, and transfer unto assignee, and assignee's heirs, successors, and assigns, the full and exclusive right to said invention in the United States and its territorial possessions and in all foreign countries and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all provisional, non-provisional, divisional, continuation, continuation-in-part, substitute, and reissue applications, and all Letters Patent, extensions, reissues, and reexamination certificates which may be granted therefore in the United States and its territorial possessions and in any and all foreign countries.

I/We hereby authorize and request the Patent Office Officials in the United States and Its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to assignee as the assignee of my/our entire right, title, and interest in and to the same, for the sole use and behalf of assignee, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me/us had this Assignment and sale not been made.

Further, I/We agree that I/We will communicate to said assignee or its (his) representatives any facts known to me/us respecting said invention, and perform all affirmative acts which may be necessary in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to assignee, make all rightful oaths, and, generally do everything possible to aid assignee, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

The undersigned hereby grant(s) the firm of Dentons US LLP, Attorneys at Law, 1900 K Street, N.W., Washington, D.C. 20006 the power to insert on this assignment any further identification, including the application number and filing date, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

1.	Date: 2018 . (2.18	KIM Vae Hun	
1.	Date. 2010.	Name KIM, Dae Hun	(Signature of Inventor)
2.	Date:	Name LEE, Ayoung	(Signature of Inventor)
3.	Date: 2018/2/8	Name MIN, Kyunghoon	(Signature of Inventor)
4.	Date:	Name KIM, Bumjoo	(Signature of Inventor)
5.	Date: 20/8, 12, 18	Name IM, Ye Hoon	(Signature of Inventor)

	Y OR DESIGN APPLICATION  Attorney Docket Number: P2917-3275PCUS
Title of Inven	FEED SPACER AND REVERSE OSMOSIS FILTER MODULE INCLUDING SAME
	below-named inventor(s) (hereinafter designated as the undersigned), I/We hereby declare that:
	The attached application, or
×	United States application or PCT international application number PCT/KR2018/013841 filed on November 13, 2018.

The above-identified application was made or authorized to be made by me/us.

I/We believe that I am/We are 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., ("assignee"), a corporation of Korea whose mailing address is 128, Yeoui-daero, Yeongdeungpo-gu, Seoul 07336, Republic of Korea, is desirous of acquiring the entire right, title, and interest in the same.

Now, in consideration of the sum of five dollars, and for other good and valuable consideration, the receipt whereof is hereby acknowledged, I/We, by these presents hereby agree to sell, assign, and transfer unto assignee, and assignee's heirs, successors, and assigns, the full and exclusive right to said invention in the United States and its territorial possessions and in all foreign countries and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all provisional, non-provisional, divisional, continuation, continuation-in-part, substitute, and reissue applications, and all Letters Patent, extensions, reissues, and reexamination certificates which may be granted therefore in the United States and its territorial possessions and in any and all foreign countries.

I/We hereby authorize and request the Patent Office Officials in the United States and Its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to assignee as the assignee of my/our entire right, title, and interest in and to the same, for the sole use and behalf of assignee, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me/us had this Assignment and sale not been made.

Further, I/We agree that I/We will communicate to said assignee or its (his) representatives any facts known to me/us respecting said invention, and perform all affirmative acts which may be necessary in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to assignee, make all rightful oaths, and, generally do everything possible to aid assignee, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

The undersigned hereby grant(s) the firm of Dentons US LLP, Attorneys at Law, 1900 K Street, N.W., Washington, D.C. 20006 the power to insert on this assignment any further identification, including the application number and filing date, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

1.	Date:		
		Name KIM, Dac Hun	(Signature of Inventor)
2.	Date: 1016. 12. 14	LEE, Ayoung Name LEE, Ayoung	(Signature of Inventor)
3.	Date:	Name MIN, Kyunghoon	(Signature of Inventor)
4.	Date:	Name KIM, Bumjoo	(Signature of Inventor)
5.	Date:	Name IM, Ye Hoon	(Signature of Inventor)

# DECLARATION AND ASSIGNMENT FOR Attorney Docket Number: P2017-3275PCUS UTILITY OR DESIGN APPLICATION Title of Invention: FEED SPACER AND REVERSE OSMOSIS FILTER MODULE INCLUDING SAME 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 United States application or PCT international application number PCT/KR2018/013841 130 filed on November 13, 2018

The above-identified application was made or authorized to be made by me/us.

I/We believe that I am/We are 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.

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Now, in consideration of the sum of five dollars, and for other good and valuable consideration, the receipt whereof is hereby acknowledged, I/We, by these presents hereby agree to sell, assign, and transfer unto assignee, and assignee's heirs, successors, and assigns, the full and exclusive right to said invention in the United States and its territorial possessions and in all foreign countries and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all provisional, non-provisional, divisional, continuation, continuation-in-part, substitute, and reissue applications, and all Letters Patent, extensions, reissues, and reexamination certificates which may be granted therefore in the United States and its territorial possessions and in any and all foreign countries.

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1.	Date:		
		Name KIM, Dae Hun	(Signature of Inventor)
2.	Date:	Name LEE, Ayoung	(Signature of Inventor)
3.	Date:	Name MIN, Kyunghoon	(Signature of Inventor)
4.	Date: 100.25,2019	<u> </u>	
		Name KIM, Bumjoo	(Signature of Inventor)
5.	Date:	Name IM Ve Hoon	(Signature of Inventor)