504100091 11/17/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4146760

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
BUMHYUN LEE	11/04/2016
YONG SHIK SHIN	11/07/2016
JIN KYU LEE	02/10/2015
DALMO KANG	08/27/2015

RECEIVING PARTY DATA

Name:	LG CHEM, LTD.
Street Address:	20, YOIDO-DONG, YOUNGDUNGPO-GU
City:	SEOUL
State/Country:	KOREA, REPUBLIC OF
Postal Code:	150-721

PROPERTY NUMBERS Total: 1

Property Type	Number		
Application Number:	14259825		

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, brian.mukuria@bskb.com
Correspondent Name: BIRCH, STEWART, KOLASCH & BIRCH, LLP

Address Line 1: P.O. BOX 747

Address Line 4: FALLS CHURCH, VIRGINIA 22040-0747

ATTORNEY DOCKET NUMBER:	5097-0501PUS1
NAME OF SUBMITTER:	BRIAN MUKURIA
SIGNATURE:	/brian mukuria/
DATE SIGNED:	11/14/2016
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 9

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PATENT REEL: 040353 FRAME: 0002

BIRCH, STEWART, KOLASCH & BIRCH, LLP

P.O. Box 747 • Falls Church, Virginia 22040-0747

Telephone: (703) 205-8000 • Facsimile: (703) 205-8050 • Email: mailroom@bskb.com

DECLARATION AND ASSIGNMENT FOR PATENT AND DESIGN APPLICATIONS

UNITED STATES PATENT RIGHTS, OR UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS

Title of Invention SMIDDLE OR LARGE-SIZED BATTERY PACK ASSEMBLY

terms for which the same may be granted.

	WILDELE OR LANGE-SIZED BATTERT LACK ASSEMBLE
	As a below named inventor (hereinafter designated as the undersigned), I hereby declare that:
	This declaration is directed to the application attached hereto.
application not attached	⇒ If the application is not attached hereto, the application is as identified by the attorney docket number as set forth above and/or the following:
inter Appln. No.	⇒ United States Application Number or PCT International Appln. No. 14/259,825
Inter Filing Date	⇒ filed on April 23, 2014 .
	The above-identified application was made or authorized to be made by me.
	I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.
	I have reviewed and understand the contents of the above-identified application, including the claims.
	I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations § 1.56.
	WHEREAS, the undersigned has invented certain new and useful improvements described in the application identified.
nsert Name f Assignee	⇒ WHEREAS, LG CHEM, LTD.
nsert Address f Assignee	⇒ of 20, Yoido-dong, Youngdungpo-gu, 150-721 Seoul, Republic of Korea,
J	its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America and
Check Box if Appropriate	⇒ in any foreign countries.
	NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned has sold, assigned and transferred, and by these presents does (do) sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries; and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or

The undersigned agrees to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agrees to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letters Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agrees to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agrees to perform all affirmative acts which may be necessary to obtain a grant of (a) valid United States of America patent(s) or a grant of (a) valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorizes and requests the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patent(s) resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has the full right to convey the entire interest herein assigned, and that he has not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grants the law firm of Birch, Stewart, Kolasch & Birch, LLP the power to insert any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office.

The undersigned hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

The undersigned hereby acknowledges 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.

In witness whereof, executed by the undersigned on the date opposite the undersigned name.

LEGAL NAME OF INVENTOR

Inventor's Name ⇒	Inventor:	BumHyun LEE	Date: _	16.11.04	
Inventor's Signature ⇒	Signature:	多沢火ル			
An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use a separate form for each inventor; or check the box below and complete the attached page(s) to list additional inventors.					
Additional in	ventors are b	peing named on the 1 supplemental sheets attached hereto.			

BSKB-DECASSIGN-SINGLE (09-12)

SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT

ADDITIONAL INVENTOR(S) Supplemental Sheet Page 1 of 1

	LEGAL N	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	¬ Inventor:	Yong Shik SHIN	Date:	2016 - 11-07
Invenier's Signature	⇒ Signature:	Shir yengshit		······································
	LEGAL N	AME OF JOINT INVENTOR, IF ANY		
inventor's Name	⇒ Inventor:	Jin Kyu LEE	Date:	***************************************
Inventor's Signature	⇒ Signature:		······	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	LEGAL N	AME OF JOINT INVENTOR, IF ANY		
Inventor's Nome	⇔Inventor:	DalMo KANG	Date:	
Inventor's Signature	⇔Signature:			

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BIRCH, STEWART, KOLASCH & BIRCH, LLP

P.O. Box 747 • Falls Church, Virginia 22040-0747

Telephone: (703) 205-8000 • Facsimile: (703) 205-8050 • Email: mailroom@bskb.com

DECLARATION AND ASSIGNMENT FOR PATENT AND DESIGN APPLICATIONS

United States Patent Rights, or UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS

terms for which the same may be granted.

Title of invention	MIDDLE OR LARGE-SIZED BATTERY PACK ASSEMBLY
	As a below named inventor (hereinafter designated as the undersigned), I hereby declare that:
	This declaration is directed to the application attached hereto.
Application not Attached	⇒ If the application is not attached hereto, the application is as identified by the attorney docket number as set forth above and/or the following:
Enter Appln. No.	⇒ United States Application Number or PCT International Appln. No. 14/259,825
Enter Filing Date	⇒ filed on April 23, 2014 .
	The above-identified application was made or authorized to be made by me.
	I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.
	I have reviewed and understand the contents of the above-identified application, including the claims.
	I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations § 1.56.
	WHEREAS, the undersigned has invented certain new and useful improvements described in the application identified.
Insert Name of Assignee	⇒ WHEREAS, LG CHEM , LTD .
Insert Address of Assignee	⇒ of 20, Yoido-dong, Youngdungpo-gu, 150-721 Seoul, Republic of Korea,
Ü	its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America and
Check Box if Appropriate	⇒ ☐ in any foreign countries.
-	NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned has sold, assigned and transferred, and by these presents does (do) sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries; and to

BSKB-DECASSIGN(09-12)

PATENT REEL: 040353 FRAME: 0006

any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or

The undersigned agrees to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agrees to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letters Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agrees to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agrees to perform all affirmative acts which may be necessary to obtain a grant of (a) valid United States of America patent(s) or a grant of (a) valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorizes and requests the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patent(s) resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has the full right to convey the entire interest herein assigned, and that he has not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grants the law firm of Birch, Stewart, Kolasch & Birch, LLP the power to insert any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office.

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The undersigned hereby acknowledges 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.

In witness whereof, executed by the undersigned on the date opposite the undersigned name.

LEGAL NAME OF INVENTOR					
Inventor's Name	⇒ In	nventor:	BumHyun LEE	Date:	
Inventor's Signature	⇒ Si	ignature:			
An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use a separate form for each inventor; or check the box below and complete the attached page(s) to list additional inventors.					

Additional inventors are being named on the 1 supplemental sheets attached hereto.

B-DECASSIGN-SINGLE (09-12) **PATENT** REEL: 040353 FRAME: 0007

SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT

ADDITIONAL INVENTOR(S) Supplemental Sheet Page 1 of 1

LEGAL NAME OF JOINT INVENTOR, IF ANY

Inventor's Name	ς¥.	Inventor	Yong Shik SHIN	Date:	0.00.00
Inventor's Signature	*>	Signature:			
		LEGAL N.	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	c\$e	Inventor	Jin Kyu LEE	Date:	Teb. 10, 2015
Inventor's Signature	৩	Signature:	- A Commission of the Commissi		
		LEGAL N.	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	r:)	Inventor:	DalMo KANG	Date:	
Inventor's Signature	κý	Signature			

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BIRCH, STEWART, KOLASCH & BIRCH, LLP

P.O. Box 747 • Falls Church, Virginia 22040-0747
Telephone: (703) 205-8000 • Facsimile: (703) 205-8050 • Email: mailroom@bskb.com

DECLARATION AND ASSIGNMENT FOR PATENT AND DESIGN APPLICATIONS

UNITED STATES PATENT RIGHTS, OR UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS

terms for which the same may be granted.

	As a below named inventor (hereinafter designated as the undersigned), I hereby declare that:					
	This declaration is directed to the application attached hereto.					
Application not Attached	If the application is not attached hereto, the application is as identified by the attorney docket number a set forth above and/or the following:					
Enter Appln. No.	United States Application Number or PCT International Appln. No. 14/259,825					
Enter Filing Date	⇒ filed on April 23, 2014 .					
	The above-identified application was made or authorized to be made by me.					
	I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.					
	I have reviewed and understand the contents of the above-identified application, including the claims.					
	I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations § 1.56.					
	WHEREAS, the undersigned has invented certain new and useful improvements described in the application identified.					
Insert Name of Assignee	⇒ WHEREAS, LG CHEM, LTD.					
Insert Address of Assignee	⇒ of 20, Yoido-dong, Youngdungpo-gu, 150-721 Seoul, Republic of Korea,					
Ü	its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America and					
Check Box if Appropriate	⇒ in any foreign countries.					
	NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned has sold, assigned and transferred, and by these presents does (do) sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries; and to					

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In witness whereof, executed by the undersigned on the date opposite the undersigned name.

LEGAL NAME OF INVENTOR

Inventor's Name	⇒ Inventor:	BumHyun LEE		Date:	-			
Inventor's Signature	° ⇒ Signature:							
An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use a separate form for each inventor; or check the box below and complete the attached page(s) to list additional inventors.								
Additional	l inventors are	being named on the 1 supplemental	sheets attached hereto.					

BSKB-DECASSIGN-SINGLE (09-12)



Attorney Docket No. 5097-0501PUS1

SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT

ADDITIONAL INVENTOR(S) Supplemental Sheet Page 1 of 1

LEGAL NAME OF JOINT INVENTOR, IF ANY

Inventor's Name	₽	Inventor:	Yong Shik SHIN	Date:	
Inventor's Signature	⇒	Signature:			
		LEGAL NA	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔	Inventor:	Jin Kyu LEE	Date: _	
Inventor's Signature	=>	Signature:			
		LEGAL NA	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	4	Inventor:	DalMo KANG	Date:	Aug 27, 2015
Inventor's Signature	. =	Signature:	1 Con lug		

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