# PATENT ASSIGNMENT

# Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
Seung Hyun BANG	12/17/2012
Hyun HAN	02/18/2013
Chun Yeon KIM	02/18/2013
Bum CHOI	02/15/2013
Sooryoung KIM	02/13/2013
Young Sun PARK	12/17/2012

### **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:	13700307

# **CORRESPONDENCE DATA**

Fax Number: 7032058050

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: (703) 205-8000

Email: mailroom@bskb.com, brian.olive@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: 5097-0350PUS1

NAME OF SUBMITTER: BRIAN OLIVE

PATENT REEL: 029921 FRAME: 0777 \$40.00 1370030

502252992

# Total Attachments: 12 source=2013-02-27 Assignment 5097-0350PUS1 3591480#page1.tif source=2013-02-27 Assignment 5097-0350PUS1 3591480#page2.tif source=2013-02-27 Assignment 5097-0350PUS1 3591480#page3.tif source=2013-02-27 Assignment 5097-0350PUS1 3591480#page4.tif source=2013-02-27 Assignment 5097-0350PUS1 3591480#page5.tif source=2013-02-27 Assignment 5097-0350PUS1 3591480#page6.tif source=2013-02-27 Assignment 5097-0350PUS1 3591480#page7.tif source=2013-02-27 Assignment 5097-0350PUS1 3591480#page8.tif source=2013-02-27 Assignment 5097-0350PUS1 3591480#page9.tif source=2013-02-27 Assignment 5097-0350PUS1 3591480#page10.tif source=2013-02-27 Assignment 5097-0350PUS1 3591480#page11.tif source=2013-02-27 Assignment 5097-0350PUS1 3591480#page11.tif source=2013-02-27 Assignment 5097-0350PUS1 3591480#page11.tif

PATENT REEL: 029921 FRAME: 0778

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

# **ASSIGNMENT**

Application N	0.:	:13/700,307	Filed:	November 27, 2012
Insert Name(s) of Inventor(s)	\$	"Given Name FAMILY NAME (ALL CAPS) WHEREAS, Seung Hyun BANG, Hyun HAN PARK (hereinafter designated as the undersigned) h	J, Chun Yeon KI	
Insert Title of Invention	ਖੇ	BATTERY PACK OF NOVEL STRUCTURE		
		for which an application for Letters Patent undersigned (except in the case of a provision		tates of America has been executed by the
Insert Date of Signing of Appln.	¢	onDecember 17, 2012 ; February 1	8, 2013; Febru	uary 15, 2013; February 13, 2013 ; and
Insert Name of Assignee	Ŷ	WHEREAS, LG CHEM, LTD.		
Insert Address of Assignee	Ť	of 20, Yoido-dong, Youngdungpo-gu, Seoul 1	.50-721, Republic	of Korea,
		its heirs, successors, legal representatives and of acquiring the entire right, title and interes that may be granted therefor in the United St	t in and to said i	nvention and in and to any Letters Patent(s)
Check Box if Appropriate	₽	in any foreign countries.		
		NOW, THEREFORE, for good and valuable the undersigned has (have) sold, assigned a and transfer unto said Assignee the full and America, its territories, dependencies and po and all Letters Patent(s) which may be grandependencies and possessions, and if the box any and all divisions, reissues, continuation terms for which the same may be granted.	and transferred, a exclusive right essessions and the ated therefor in the above is design	and by these presents does (do) sell, assign to the said invention in the United States of e entire right, title and interest in and to any the United States of America, its territories, ated, in any and all foreign countries; and to

Page 1

BIRCH, STEWART, KOLASCH & BIRCH, LLP

Attorney Docket No.: 5097-0350PUS1

The undersigned agree(s) 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 agree(s) 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 agree(s) 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 agree(s) 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 authorize(s) and request(s) 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 (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

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

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

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

BIRCH, STEWART, KOLASCH & BIRCH, LLP

Date 2d2-12-19 Name of Inventor (Signature) Seung Hyun BANG	***************************************
Date Name of Inventor (Signature) Hyun HAN	
Date Name of Inventor(Signature) Chun Yeon KIM	
DateName of Inventor(Signature) Burn CHOI	
Date Name of Inventor (Signature) Sooryoung KIM	
Date Name of Inventor (Signature) Young Sun PARK	

Page 2

United States Patent Rights, or United States Plus all Foreign Patent Rights

# **ASSIGNMENT**

Application N	0.:	13/700,307	Filed:	November 27, 2012
Insert Name(s) of Inventor(s)	⇔	***(Given Name FAMILY NAME (ALL CAPS WHEREAS, Seung Hyun BANG, Hyun HAI PARK (hereinafter designated as the undersigned)	N, Chun Yeon KIN	, , ,
Insert Title of Invention	<b>\$</b>	BATTERY PACK OF NOVEL STRUCTURE		
		for which an application for Letters Patent undersigned (except in the case of a provisio		ates of America has been executed by the
Insert Date of Signing of Appln.	\$	onDecember 17, 2012 ; February 18	3, 2013; Februa	ry 15, 2013; February 13, 2013; and
Insert Name of Assignee	⇔	WHEREAS, LG CHEM, LTD.		
Insert Address of Assignee	₽	of 20, Yoido-dong, Youngdungpo-gu, Seoul	150-721, Republic	of Korea,
		its heirs, successors, legal representatives an of acquiring the entire right, title and interes that may be granted therefor in the United St	st in and to said i	avention and in and to any Letters Patent(s)
Check Box if Appropriate	<b>\$</b>	in any foreign countries.		
		NOW, THEREFORE, for good and valuable the undersigned has (have) sold, assigned and transfer unto said Assignee the full and America, its territories, dependencies and pound all Letters Patent(s) which may be gradependencies and possessions, and if the boary and all divisions, reissues, continuation terms for which the same may be granted	and transferred, a dexclusive right to assessions and the anted therefor in to above is designa	and by these presents does (do) sell, assign to the said invention in the United States of entire right, title and interest in and to any the United States of America, its territories, ated, in any and all foreign countries; and to

BIRCH, STEWART, KOLASCH & BIRCH, LLP

Page 1

Attorney Docket No.: 5097-0350PUS1

The undersigned agree(s) 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 agree(s) 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 agree(s) 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 agree(s) 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 authorize(s) and request(s) 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 (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

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

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

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

Date .		Name of Inventor	(Signature) Seung Hyun BANG
Date _	<b>2</b> 013 /2/18	Name of Inventor	(Signature) Hyuri HAN
Date _		Name of Inventor	(Signature) Chun Yeon KIM
Date _		Name of Inventor	(Signature) Burn CHOI
Date _		Name of Inventor	(Signature) Sooryoung KIM
Date _		Name of Inventor	(Signature) Young Sun PARK

BIRCH, STEWART, KOLASCH & BIRCH, LLP

Page 2

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

# **ASSIGNMENT**

Application N	0.:	13/700,307	Filed:	November 27, 2012
Insert Name(s) of Inventor(s)	₽	***(Given Name FAMILY NAME (ALL CAPS * WHEREAS, Seung Hyun BANG, Hyun HAI PARK (hereinafter designated as the undersigned)	N, Chun Yeon K	IM, Bum CHOI, Sooryoung KIM, Young Sun ted certain new and useful improvements in:
Insert Title of Invention	₽	BATTERY PACK OF NOVEL STRUCTURE		
		for which an application for Letters Patent undersigned (except in the case of a provisio		States of America has been executed by the
Insert Date of Signing of Appln.	ф	on December 17, 2012 ; February 18	3, 2013; Februa	ary 15, 2013; February 13, 2013
Insert Name of Assignee	2	WHEREAS, LG CHEM, LTD.		
Insert Address of Assignee	4	of 20, Yoido-dong, Youngdungpo-gu, Seoul	150-721, Republi	c of Korea,
			st in and to said	nafter designated as the Assignee) is desirous invention and in and to any Letters Patent(s) and
Check Box if Appropriate	φ	in any foreign countries.		
		the undersigned has (have) sold, assigned and transfer unto said Assignee the full and America, its territories, dependencies and pour and all Letters Patent(s) which may be gradependencies and possessions, and if the bo	and transferred, d exclusive right ossessions and the nted therefor in x above is design	he receipt of which is hereby acknowledged, and by these presents does (do) sell, assign to the said invention in the United States of he entire right, title and interest in and to any the United States of America, its territories, hated, in any and all foreign countries; and to and extensions thereof for the full term or

BIRCH, STEWART, KOLASCH & BIRCH, LLP

Page 1

Attorney Docket No.: 5097-0350PUS1

The undersigned agree(s) 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 agree(s) 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 agree(s) 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 agree(s) 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 authorize(s) and request(s) 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 (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

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

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

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

Date		Name of Inventor	(Signature) Seung Hyun BANG
Date		Name of Inventor	(Signature) Hyun HAN
Date	2013 . 02 . 18	Name of Inventor	(Signature) Chun Yeon KIM
Date		Name of Inventor	(Signature) Bum CHOI
Date .		Name of Inventor	(Signature) Sooryoung KIM
Date _		Name of Inventor	(Signature) Young Sun PARK

PATENT REEL: 029921 FRAME: 0784

United States Patent Rights, or United States Plus all Foreign Patent Rights

# **ASSIGNMENT**

Application No	<b>.</b> :	13/700,307	Filed:	November 27, 2012
insert Name(s) of Inventor(s)	φ	***(Given Name FAMILY NAME (ALL CAPS WHEREAS, Seung Hyun BANG, Hyun HAN PARK (hereinafter designated as the undersigned)	N, Chun Yeon KII	
Insert Title of Invention	⇔	BATTERY PACK OF NOVEL STRUCTURE		
		for which an application for Letters Patent undersigned (except in the case of a provisio		tates of America has been executed by the
insert Date of Signing of Appln.	4	on December 17, 2012 ; February	18, 2013; Febru	ary 15, 2013; February 13, 2013 ; and
Insert Name of Assignee	Φ	WHEREAS, LG CHEM, LTD.		
Insert Address of Assignee	ф	of 20, Yoido-dong, Youngdungpo-gu, Seoul	150-721, Republic	of Korea,
		its heirs, successors, legal representatives an of acquiring the entire right, title and interest that may be granted therefor in the United S	st in and to said i	nvention and in and to any Letters Patent(s)
Check Box if Appropriate	4	in any foreign countries.		
		NOW, THEREFORE, for good and valuable the undersigned has (have) sold, assigned and transfer unto said Assignee the full and America, its territories, dependencies and pound all Letters Patent(s) which may be grandependencies and possessions, and if the boary and all divisions, reissues, continuation terms for which the same may be granted.	and transferred, a d exclusive right ossessions and the nted therefor in to x above is design	and by these presents does (do) sell, assign to the said invention in the United States of e entire right, title and interest in and to any the United States of America, its territories, ated, in any and all foreign countries; and to

BIRCH, STEWART, KOLASCH & BIRCH, LLP

Page 1

Attorney Docket No.: 5097-0350PUS1

The undersigned agree(s) 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 agree(s) 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 agree(s) 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 agree(s) 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 authorize(s) and request(s) 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 (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

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

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

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

<del></del>

BIRCH, STEWART, KOLASCH & BIRCH, LLP

Page 2

United States Patent Rights, or United States Plus all Foreign Patent Rights

# **ASSIGNMENT**

Application N	o.:	13/700,307	Filed:	November 27, 2012
insert Name(s) of Inventor(s)	⇔	PARK	HAN, Chun Yeon KI	M, Bum CHOI, Sooryoung KIM, Young Sun
Insert Title of Invention	₽	BATTERY PACK OF NOVEL STRUCTU	JRE	
		for which an application for Letters Pa undersigned (except in the case of a prov		tates of America has been executed by the
Insert Date of Signing of Appln.	0	onDecember 17, 2012 ; Febr	uary 18, 2013; Febr	uary 15, 2013; February 13, 2013
Insert Name of Assignee	Φ	WHEREAS, LG CHEM, LTD.		
Insert Address of Assignee	Ð	of 20, Yoido-dong, Youngdungpo-gu, Se	oul 150-721, Republic	of Korea,
			terest in and to said i	after designated as the Assignee) is desirous nvention and in and to any Letters Patent(s) and
Check Box if Appropriate	Φ	in any foreign countries.		
		the undersigned has (have) sold, assign and transfer unto said Assignee the full America, its territories, dependencies an and all Letters Patent(s) which may be dependencies and possessions, and if the	ned and transferred, a and exclusive right of d possessions and the granted therefor in the box above is designated ations, conversions a	the receipt of which is hereby acknowledged, and by these presents does (do) sell, assign to the said invention in the United States of the entire right, title and interest in and to any the United States of America, its territories, ated, in any and all foreign countries; and to and extensions thereof for the full term or

BIRCH, STEWART, KOLASCH & BIRCH, LLP

Page 1

Attorney Docket No.: 5097-0350PUS1

The undersigned agree(s) 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 agree(s) 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 agree(s) 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 agree(s) 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 authorize(s) and request(s) 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 (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

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

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

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

BIRCH, STEWART, KOLASCH & BIRCH, LLP

Date		Name of Inventor	(Signature) Seung Hyun BANG
Date		Name of Inventor	(Signature) Hyun HAN
Date		Name of Inventor	(Signature) Chun Yeon KIM
Date		Name of Inventor	(Signature) Bum CHOI
Date	February 13th, 2013	Name of Inventor	(Signature) Soorswang KIM
Date		Name of Inventor	(Signature) Young Sun PARK

Page 2

PATENT REEL: 029921 FRAME: 0788

United States Patent Rights, or United States Plus all Foreign Patent Rights

# **ASSIGNMENT**

Application N	o.:	13/700,307	Filed:	November 27, 2012
Insert Name(s) of ⇔ Inventor(s)		PARK	N, Chun Yeon K	IM, Bum CHOI, Sooryoung KIM, Young Sunted certain new and useful improvements in:
Insert Title of Invention	₽	BATTERY PACK OF NOVEL STRUCTURE		
		for which an application for Letters Paten undersigned (except in the case of a provision		States of America has been executed by the
Insert Date of Signing of Appln.	Ð	on December 17, 2012 ; February	18, 2013; Febru	ary 15, 2013; February 13, 2013
Insert Name of Assignee	⇔	WHEREAS, LG CHEM, LTD.		
Insert Address of Assignee	4	of 20, Yoido-dong, Youngdungpo-gu, Seoul	150-721, Republi	c of Korea,
			st in and to said	nafter designated as the Assignee) is desirous invention and in and to any Letters Patent(s) and
Check Box if Appropriate	⇔	in any foreign countries.		
		the undersigned has (have) sold, assigned and transfer unto said Assignee the full and America, its territories, dependencies and p and all Letters Patent(s) which may be gra dependencies and possessions, and if the bo	and transferred, d exclusive right ossessions and th inted therefor in ox above is design	he receipt of which is hereby acknowledged, and by these presents does (do) sell, assign to the said invention in the United States of the entire right, title and interest in and to any the United States of America, its territories, nated, in any and all foreign countries; and to and extensions thereof for the full term or

BIRCH, STEWART, KOLASCH & BIRCH, LLP

Page 1

Attorney Docket No.: 5097-0350PUS1

The undersigned agree(s) 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 agree(s) 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 agree(s) 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 agree(s) 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 authorize(s) and request(s) 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 (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

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

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

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

Date		Name of Inventor	
			(Signature) Seung Hyun BANG
Date		Name of Inventor	(Signature) Hyun HAN
			(
Date		Name of Inventor	(Signature) Chun Yeon KIM
			(e.g., marry contract)
Date		Name of Inventor	(Signature) Burn CHOI
			(6)
Date		Name of Inventor	(Signature) Sooryoung KIM
Date	2012.12.19	Name of Inventor	(Signature) Young Sun PARK
			(eighand) roung saint mix

BIRCH, STEWART, KOLASCH & BIRCH, LLP

Page 2