Form PTO-1595 (Rev. 09/04)	u.S. DEPARTMENT OF COMMERCE United States Palent and Trademark Office
OMB No. 0651-0027 (exp. 6/30/2005)  RECORDATION FOR	
PATENTS	
To the Director of the U.S. Patent and Trademark Office: Please	record the attached documents or the new address(es) below.
Name of conveying party(ies)/Execution Date(s):	2. Name and address of receiving party(ies)
	at the min name at take the Alexand
SEUNGRIM YANG (05/28/2009), YOUNG- MIN KIM (04/29/2009), JUHYUN KIM	
(05/28/2009), KI WOO CHUN (05/14/2009),	
(CO, 2012007); INC. (CO. CALOTT (CO. 2 (12007))	Name: LG CHEM, LTD.
	Internal Address:
Execution Date(s): In parentheses after inventor name	Street Address:
Additional name(s) of conveying party(les) attached? X Yes No	
	LG TWIN TOWERS
3. Nature of Conveyance:	20, YEOUIDO-DONG YEONGDEUNGPO-GU
X Assignment Merger	1EONGDEONGFO-GC
Security Agreement Change of Name	City SEOUL
Government Interest Assignment	State:
Executive Order 9424, Confirmatory License	Country: Republic of Korea Zip: 150-721
	Country. Tropusate of State of
Other	attached:
4. Application or patent number(s):	This document is being filed together with a new application.
	H. Patent No.(s)
A. Patent Application No.(s) 12/310,341	The Fatoria House
12310,341	
Additional numbers attached?	
<ol> <li>Name and address to whom correspondence concerning document should be malled:</li> </ol>	6. Total number of applications and patents Involved:
Name: Kelly Y. Hwang	
LERNER, DAVID, LITTENBERG, KRUMHOLZ & MENTLIK, LLP	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00
KROWHOLZ & WENTLIN, LLF	7. Total ree (57 CFR 1.21(fl) & 5.41) 5 40.00
Internal Address: Atty. Dkt.: LGCHEM 3.3-070	Authorized to be charged by credit card
Street Address: 600 South Avenue West	X Authorized to be charged to deposit account
	Enclosed
	None regulred (government interest not affecting title)
	T Note reduied (Boxentities); litterest flor suecruit arie)
City: Westfield	8. Payment Information
State: NJ Zip: 07090	a. Credit Card Last 4 Numbers
Phone Number: (908) 518-6320	Expiration Date
Fax Number: (908) 654-0415	b. Deposit Account Number 12-1095
Emeil Address: khwang@ldlkm.com	Authorized User Name Kelly Y. Hwang
9. Signature:	
1/10/1 24	September 24, 2009
Agriature /	Date
Kelly Y. Hwang - 51,831	Total number of pages including cover 9
Name of Person Signing	sheet, attachments, and documents:

**PATENT**\*514\_1.00C

Form PTO-1595	REGORI	(continued)	
Additional Convey	ring Party(ies)/Exec	ution Date(s) (1. Continued):	
Minjung Ryu (06/11	/2009), Eun-Suok Oh (	(05/15/2009), and Min Ho Cho (	05/15/2009)
Additional Assigne	ees (2. Continued):	<u>-</u>	
Assignee Name:			
Internal Address: Street Address:			
Suber Address.			
Cirv:	State:	Country:	Zip:
			- T
	<u> </u>		<del></del>
Internal Address: Street Address:			
City:	State:	Country:	Zip:
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Internal Address: Street Address:			
City:	State:	Country:	Zip:
Additional Applications and/or Patents (4. Continued):			
Additional Patent Application	on Numbers	Additional Patent Numbers	
4A. Continued:		4B, Continued:	
	Additional numbers	attached? Yes No	,

2

Docket No.: LGCHEM 3.3-070

······························	Docket Number (Optional)
ASSIGNMENT OF UTILITY APPLICATION	
Whereas, I. SeungRim Yang	of
102-1401, Chowon Apt, Mannyeon-dong, Seo-qu. Daej	eon; ; REPUBLIC OF KOREA 302-740
hereafter referred to as assignor, have with others invented certs BINDER FOR ELECTRODE MATERIAL CONTAINING AND POLYURETHANE AND LITHIUM SECONDARY SAME	G SEMI-IPN OF POLYVINYL ALCOHOL
for which an application for a United States Letters Pete Application Number $\frac{12}{310}, 341$	ent was filed on <u>February 19, 2009</u>
for which an application for a United States Letters Pater	nt was executed by me on
x for which an International Application was filed on	August 10, 2007 , as
PCT/KR2007/003834 , designating the United	States.
whereas, LG CHEM, LTD. a corporation of Korea, Republic of herein referred to as "assign	nee" whose mailing address is
LG Twin Towers; 20, Yeou <u>ldo-dong; Yeongdeungpo-gu; Se</u>	
is desirous of acquiring the entire right, title and interest in the sa	
NOW, THEREFORE, In consideration of the sum of one is acknowledged, and other good and valuable consideration, I assignee my entire right, title and interest for the United State invention and the aforesaid utility patent application and all of applications and patents applied for or granted therefor in the said invention, including without limitation all applications and pithe aforesaid utility application pursuant to any law or treaty, an intringement with the right to sue for and collect the same for its legal representatives, and including the right to claim such price to assignee herein, as assignee of the entire interest the representatives, heirs and assigns do hereby agree and covenar all original, divisional, continuation, reissue and other application assignments thereof to said assignee or its assigns, to community the undersigned respecting said improvements, where legal proceedings in which any of said applications or patents mustightful oaths, and to do generally everything necessary to aid obtain patent protection for said improvements in all countries, the legal by said assignee.	es of America and all other countries in and to said original, divisional, continuation, substitute or reissue. United States of America and all other countries, for alents for said invention claiming priority or benefit of original divisions of past a own use and the use of its successors, assigns and ority or benefit and the Commissioner of Patents and stents on said improvements or resulting therefrom to herein; and the undersigned for me and my legal int without further remuneration, to execute and deliver one for Letters Patent on said improvements and all nicate to said assignee or its representatives all facts ever requested, to testify in any interferences or other ay become involved, to algn all lawful papers, make all assignee, its successors, assigns and nominees to the expenses incident to said applications to be bome
And I do hereby authorize my attorneys to insert on this deed the when known.	
05/28/2009	Seuny Porm Yang
Date	SeungRim Yang
_ how	
VVIIINESS	
Typed Name of Witness	
·	<u> </u>
x *Total of 7 forms are submitted.	

ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Optional)	
Whereas, I. Young-Min Kim	of	
13-1104, Garam Apt., Samcheon-dong, Sec-qu. Daeleon: ; RE		
hereafter referred to as assignor, have with others invented contain new BINDER FOR ELECTRODE MATERIAL CONTAINING SEM AND POLYURETHANE AND LITHIUM SECONDARY BATT SAME	II-IPN OF POLYVINYL ALCOHOL	
for which an application for a United States Letters Patent was Application Number 12/310,341	filed on February 19, 2009	
for which an application for a United States Letters Patent was e	executed by me on	
x for which an International Application was filed on Augus	st 10, 2007 , as	
PCT/KR2007/003834 , designating the United States	ı.	
And		
Whereas, <u>LG CHEM, LTD.</u> a corporation of <u>Korea. Republic of</u> herein referred to as "assignee" who	nse mailino address is	
LG Twin Towers; 20, Yeouldo-dong; Yeongdeungpo-gu; Seoul; REI	PUBLIC OF KOREA 150-721	
is desirous of acquiring the entire right, title and interest in the same;		
NOW, THEREFORE, in consideration of the sum of one dollars (\$ 1.00 ), the receipt whereof is acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set over to said assignee my entire right, title and interest for the United States of America and all other countries in and to said invention and the aforesald 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 aforesald 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 tegal 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 assignse of the entire interest therein; and the undersigned for me and my legal representatives, heirs and assignse of hereby agree and covernant 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 caths, and to do generally everything necessary to all assignee, its successors, assigns and nominees to obtain patent protection for said improvements in all countries, the expenses		
And I do hereby authorize my attorneys to insert on this deed the filing d when known.	late and application number of said application	
April 2 1. 2009 Journ	Young-Min Kim	
Witness  Witness  Typed Name of Witness		

x \*Total of 7 forms are submitted.

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\*Total of

forms are submitted.

ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Optional)	
Whereas, I, Juhyun Klm of 101, Sinveollip, LG Chem Sawon Apt., Doryong-dong, Yuseong-au, Daejeon; ; REPUBLIC OF KOREA 305-340		
hereafter referred to as assignor, have with others invented certain new and useful improvements in BINDER FOR ELECTRODE MATERIAL CONTAINING SEMI-IPN OF POLYVINYL ALCOHOL AND POLYURETHANE AND LITHIUM SECONDARY BATTERY EMPLOYED WITH THE SAME		
x for which an application for a United States Letters Pate Application Number 12/310,341	ent was filed on <u>February 19, 2009</u>	
for which an application for a United States Letters Pater  for which an International Application was filed on	·'	
PCT/KR2007/003834 , designating the United	States.	
Whereas, LG CHEM, LTD		
a corporation of Korea, Republic of herein referred to as "assign	iee" whose mailing address is	
LG Twin Towers; 20, Yeouldo-dong; Yeongdeungpo-gu; Ser		
is desirous of acquiring the entire right, title and interest in the sa		
is acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set over to said assignee my entire right, title and interest for the United States of America and all other countries in and to said invention and the aforesald 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 petents on said improvements or resulting therefrom to said assignee herein, as assignee of the entire interest therein; and the undersigned for me and my 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 ald assignee, its successors, assigns and nominees to obtain patent protection for said improvements in all countries, the expenses incident to said applications to be tome		
And I do hereby authorize my attorneys to insert on this deed the when known.	e filing date and application number of said application	
May 28, 209	Julyur 1/2	
Date	Juhyun Kim	
Date Supiral Witness		
Typed Name of Witness		

**PATENT** 

ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Optional)	
Whereas, I, KI Woo Chun	of	
2-807, Samsung Apt., Oryu-dong, Jung-gu, Daejeon;	REPUBLIC OF KOREA 301-758	
hereafter referred to as assignor, have with others invented certs BINDER FOR ELECTRODE MATERIAL CONTAINING AND POLYURETHANE AND LITHIUM SECONDARY SAME	3 SEMI-IPN OF POLYVINYL ALCOHOL BATTERY EMPLOYED WITH THE	
for which an application for a United States Letters Pate	entwasfiled on February 19, 2009	
Application Number 12/310,341	· · · · · · · · · · · · · · · · · · ·	
for which an application for a United States Letters Pater	t was executed by me on	
x for which an International Application was filed on	August 10, 2007 , as	
	States.	
Whereas, LG CHEM, LTD.		
a corporation of Koree, Republic of herein referred to as "assign		
LG Twin Towers; 20, Yeouido-dong; Yeongdeungpo-gu; Sec		
Is desirous of acquiring the entire right, title and interest in the sa	me;	
NOW, THEREFORE, in consideration of the sum of one dollars (\$ 1.00 ), the receipt whereof is acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set over to said assignee my 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 and my 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 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 expenses incident to said applications to be borne and paid by said assignee.		
And I do hereby authorize my attorneys to insert on this deed the when known.	filing date and application number of said application	
05/14/2009	ch	
Date	Ki Woo Chun	
Witness  Su- Jin KIM  Typed Name of Witness		
Total of 7 forms are submitted.		

	The street House of the street
ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Optional)
Whereas, I, Minjung Ryu	of
203, 1641-95, Sillimbon-dong, Gwanak-qu, Seoul: . R	EPUBLIC OF KOREA 151-853
hereafter referred to as assignor, have with others invented cert BINDER FOR ELECTRODE MATERIAL CONTAINING AND POLYURETHANE AND LITHIUM SECONDARY SAME	G SEMHIPN OF POLYVINYL ALCOHOL BATTERY EMPLOYED WITH THE
for which an application for a United States Letters Pate Application Number 12/310,341	entwas filed on <u>February 19, 200</u> 9
for which an application for a United States Letters Pater	nt was executed by me on,
x for which an International Application was filed on	August 10, 2007 , as
	States.
Whereas. LG CHEM, LTD.	
a corporation of Korea, Republic of herein referred to as "assign	
LG Twin Towers; 20, Yeouldo-dong; Yeongdeungpo-gu; Sec	
is desirous of acquiring the entire right, title and interest in the sa	me;
is acknowledged, and other good and valuable consideration, I assignee my entire right, title and interest for the United State invention and the aforeseld utility patent application and all of applications and patents applied for or greated therefor in the light invention, including without limitation all epptications and patents are all original and patents are application pursuent to any law or treaty, an infingement with the right to sue for and collect the same for its legal representatives, and including the right to claim such prior tradements is hereby authorized and requested to issue all patents all assignee herein, as assignee of the entire interest in representatives, heirs and assigns do hereby agree and covenant all originals, divisional, continuation, reissue and other application assignments thereof to said assignee or its assigns, to communication to the undersigned respecting said improvements, where legal proceedings in which any of said applications or patents mail rightful caths, and to do generally everything necessary to sid obtain patent protection for said improvements in all countries, the and paid by said assignee.  And I do hereby authorize my attorneys to insert on this deed the	is of America and all other countries in and to said riginal, divisional, continuation, substitute or relasue United States of America and all other countries, for atenta for said invention claiming priority or benefit of dincluding all claims for damages by reason of past own use and the use of its successors, assigns and rity or benefit and the Commissioner of Patents and ente on said improvements or resulting therefrom to erain; and the undersigned for me and my legal it without further remuneration, to execute and deliver ans for Letters Patent on said improvements and all icate to said assignee or its representatives all facts wer requested, to testify in any interferences or other tay become involved, to sign all lawful papers, make it assignee, its successors, assigns and nominees to se expenses incident to said applications to be borne
when known.	ming date and application number of said application
<u>06.11.2009</u>	10 / C D
Date	Minjung Ryu
- Great Ti	
Witness	
Su-Jin HIM	
Typed Name of Wilness	
x *Total of 7 forms are submitted.	

· · · · · · · · · · · · · · · · · · ·		
ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Optional)	
Whereas, I. Eun-Suok Oh	of	
602-502, <u>Banseokmaeul 6-danji Apt., Banseok-dong, Yu</u> KOREA 305-150	seong-gu. Daeieon: : REPUBLIC OF	
hereafter referred to as assignor, have with others invented certa BINDER FOR ELECTRODE MATERIAL CONTAINING AND POLYURETHANE AND LITHIUM SECONDARY SAME	G SEMI-IPN OF POLYVINYL ALCOHOL	
for which an application for a United States Letters Pate Application Number 12/310,341	ent was filed on February 19, 2009	
for which an application for a United States Letters Pater	it was executed by me on ,	
x for which an International Application was filed on	August 10, 2007 , as	
PCT/KR2007/003834 , designating the United And	States.	
Whereas, LG CHEM, LTD.	<u> </u>	
a corporation of Korea, Republic of herein referred to as "assign		
LG Twin Towers; 20, Yaouido-dong; Yeongdeungpo-gu; Sec is desirous of acquiring the entire right, little and interest in the sa		
is desirous of additing the entire right, the and interest to the se	ine,	
NOW, THEREFORE, in consideration of the sum of one dollars (\$ 1.00 ), the receipt whereof is acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set over to said assignee my 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 and my legal 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 expenses incident to said applications to be borne and paid by said assignee.		
when known.	12 -	
<u> 5.15 . 800</u> €	Sup Such Sh	
Dale	Eun-Şuok Oh	
Witness		
7. T. L. 11.4		
Typed Name of Witness		
	-	
x *Total of 7 forms are submitted.	<del></del>	

**RECORDED: 09/25/2009** 

ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Optional)	
Whereas, I. Min Ho Cho	of	
102-201, Kunyoung Apt., Sangdo-dong, Dongjak-gu,		
hereafter referred to as assignor, have with others invented certs BINDER FOR ELECTRODE MATERIAL CONTAINING AND POLYURETHANE AND LITHIUM SECONDARY SAME	G SEMI-IPN OF POLYVINYL ALCOHOL BATTERY EMPLOYED WITH THE	
for which an application for a United States Letters Pate Application Number $\frac{12/310,341}{}$		
for which an application for a United States Letters Pater	nt was executed by me on	
x for which an International Application was filed on	August 10, 2007 , as	
PCT/KR2007/003834 , designating the United And	States.	
Whereas, LG CHEM, LTD.		
a corporation of Korea, Republic of herein referred to as "assign		
LG Twin Towers; 20, Yeouldo-dong; Yeongdeungpo-gu; Se		
is desirous of acquiring the entire right, title and interest in the sa	ime;	
NOW, THEREFORE, in consideration of the sum of one dollars (\$ 1.00 ), the receipt whereof is acknowledged, and other good and valuable consideration. I as assignor hereby sell, assign and set over to said assignee my entire right, title and interest for the United States of America and all other countries in and to said invention and the aforesald 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 aforesald 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 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 expenses incident to said applications to be borne and paid by said assignee.		
And I do hereby authorize my attorneys to insert on this deed the when known.	s filing date and application number of said application	
<u> </u>	Clando	
Date	Min Ho Cha	
Bur V.		
Witness		
Typed Name of Witness		
x *Total of 7 forms are submitted.		

**PATENT**