Form PTO-1595 (Rev. 09/04) OMB No. 0801-0027 (exp. 0/20/2005)	U.S. DEPARTMENT OF COMMERC United States Patent and Trademark Offic
RECORDATION FOR	
PATENTS	ONLY
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(les)/Execution Date(s):	2. Name and address of receiving party(ies)
BYOUNG-BAE LEE (01/04/2010), SHIN-	
JUNG CHOI (01/01/2010), JAE SEUNG OH	
(01/04/2010), JI-WON PARK (01/04/2010),	Name: LG CHEM, LTD.
	Name: EG CHEM, CTD. internal Address:
Execution Date(s): in parentheses after inventor name	Street Address:
Additional name(s) of conveying party(les) attached? X Yes No	
3. Nature of Conveyance:	LG TWIN TOWERS 20, YEQUIDO-DONG
X Assignment Merger	YEONGDEUNGPO-GU
	OTOTU
Security Agreement Change of Name	City: SEOUL
Government Interest Assignment	State:
Executive Order 9424, Confirmatory License	Country: Republic of Korea Zip: 150-721
Other	Additional name(s) & address(es) Yes X No attached:
A. Patent Application No.(s) 12/523,092 Additional numbers attached?	8. Patent No.(s) Yes X No
5. Name and address to whom correspondence concerning document should be mailed:	5. 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
Internal Address: Atty. Dkt.: LGCHEM 3.3-112	Authorized to be charged by credit card
Street Address: 600 South Avenue West	Authorized to be charged to deposit account     Enclosed     None required (government interest not affecting title)
City: Westfield	8. Payment Information
State: NJ Zip: 07090	a. Gredit Card Last 4 Numbers
Phone Number: (908) 518-6320	Expiration Date
Fax Number: (908) 654-0415 Email Address: khwang@ldlkm.com	b. Deposit Account Number 12-1095 Authorized User Name Kelly Y. Hwang
9. Signature:	The second secon
Clarific	March 29, 2010
Kelly Y. Hwang - 51,831	Total number of suppression by Judice course
Name of Person Signing	sheet, attachments, and documents:

PATENT REEL: 024156 FRAME: 0743

Additional Conveying Party(les)/Execution Date(s) (1. Continued)  Young-Kyu Han (81/04/2010), Jac-Hoon Jung (81/29/2010), and Jac-Duk  Additional Assignees (2. Continued):  Assignee Name: Internal Address:	):		
Additional Assignees (2. Continued):  Assignee Name:			
Assignee Name:	Young-Kyu Han (01/04/2010), Jac-Hoon Jung (01/29/2010), and Jac-Duk Park (01/23/2010)		
	The state of the s		
Internal Address:			
Street Addrass:			
City: State: Country:			
Assignee Name:			
Internal Address:			
Street Address:			
City: State: Country:	Zip:		
Assignoe Name:			
Internal Address:			
Street Address:			
City: State: Country;	Zip:		
Additional Applications and/or Patents (4. Continued):	" '		
Additional Patent Application Numbers Additional Patent Numbers 4A. Continued:  Additional Patent Numbers 4B. Continued:			
Additional numbers attached? Yes N	o		

2

Docket No.: LGCHEM 3.3-112

,,,,,	(ormer PYO/SR/15 (8-00) Modified LDLKEM
ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Optional)
Whereas, I, LEE, Byoung-Bae	of
740-5, Seongjeong 1-dong, Cheonan-si, Chungcheon	gnam-do 330-934, Republic of Korea
hereafter referred to as assignor, have with others invented certs ELECTROLYTE COMPRISING EUTECTIC MIXTUR USING THE SAME	nin new and useful improvements in RE AND SECONDARY BATTERY
for which an application for a United States Letters Pate Application Number 12/523,092	ent was filed on July 14, 2009
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	January 16, 2008 , as
PCT/KR2008/000272 , designating the United	States.
And	1
Whereas, <u>LG Chern, Ltd.</u> a corporation of <u>Korea, Republic of</u> herein referred to as "assign 20, Yoldo-dong, Youngdungpo-gu, Seoul 150-721, Re	eee″ whose mailing address is public of Korea
is desirous of acquiring the entire right, title and interest in the sa	ame;
Is acknowledged, and other good and valuable consideration, assignce my entire right, title and interest for the United Statinvention and the aforesaid utility patent application and all capplications 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, as infringement with the right to sue for and collect the same for it legal representatives, and including the right to daim such price trademarks is hereby authorized and requested to issue all passignee herein, as assignee of the entire interest the representatives, here and assigns do hereby agree and covena all original, divisional, continuation, reissue and other applications assignments thereof to said assignee or its assigns, to community to the undersigned respecting said improvements, when legal proceedings in which any of said applications or patents me rightful oaths, and to do generally everything necessary to aid obtain patent protection for said improvements in all countries, that and paid 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 latents for said invention claiming priority or benefit of not including all claims for damages by reason of past is own use and the use of its successors, assigns and ority or benefit and the Commissioner of Patents and altents on said improvements or resulting therefrom to herein; and the undersigned for me and my legal int without further remuneration, to execute and deliver ons 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 my become involved, to sign all lawful papers, make all disasignee, its successors, assigns and nominees to
And I do hereby authorize my attorneys to insert on this deed the when known.	e filing date and application number of said application
	Syoung Bre Les LEE. BYOUNG-Bae
Date	C LEE, Byoung-Bae
Back, Sin Kyung. Typed Name of Witness	
Total of 7 forms are submitted.	

ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Optional)
Whereas, tCHOI, Shin-Jung	of
744-43, Sin-dong, Iksan-si, Jeollabuk-do 570-976, Re	epublic of Korea
hereafter referred to as assignor, have with others invented cer ELECTROLYTE COMPRISING EUTECTIC MIXTUI USING THE SAME	RE AND SECONDARY BATTERY
for which an application for a United States Letters Par Application Number 12/523,092	tent was filed onJuly_14,_2009
for which an application for a United States Letters Pate	nt was executed by me on
x for which an international Application was filed on	_January 16, 2008 , as
PCT/KR2008/000272 designating the United States.	
Whereas, LG Chem, Ltd.	
a corporation of <u>Korea, Republic of</u> herein referred to as "assig 20, Yoldo-dong, Youngdungpo-gu, Seoul 150-721, Re	nse" whose mailing address is spublic of Korea
is desirous of acquiring the entire right, title and interest in the s	
NOW, TEGREFORE, in consideration of the sum of one dollars (\$ 1.00 ), the receipt whereof is acknowledged, and other good and valuable consideration, it 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 levention 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 see 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 thereform to said assignee herein, as assignee of the entire interest therein; and the undersigned for me and my legal representatives, hours and assigne do hereby agree and coverant 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 nonlinees 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 when known.	
1,1.2010.	CHOLShin-Jung
Dete	CHÓ <del>I, Ś</del> hin-Jung
$\mathcal{L}$	
Witness	
Baek.jin kyung_	
Typed Name of Witness	
Total of 7 forms are submitted.	

PATENT REEL: 024156 FRAME: 0746

	Initian 1 17/20110 (0-00) MODING LDERGN
ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Optional)
Whereas, I, OH, Jae-Seung	of
103-1302, Samsung Aparlment, Suseo-dong, Gangn	am-gu, Seoul 135-521, Republic of Korea
hereafter referred to as assigner, have with others invented cert ELECTROLYTE COMPRISING EUTECTIC MIXTUR USING THE SAME	ein new and useful improvements in RE AND SECONDARY BATTERY
$oxed{x}$ for which an application for a United States Letters Pat Application Number $12/523$ , $092$	
for which an application for a United States Letters Pate	nt was executed by me on,
x for which an International Application was filed on	January 16, 2008 , as
$ \begin{array}{c} \text{PCT/KR2008/000272} \\ \text{And} \end{array} \text{, designating the United} $	f States.
Whereas, LG Chem, Ltd.	
a corporation of Korea, Republic of herein referred to as "assign 20, Youto-dong, Youngdungpo-gu, Seoul 150-721, Re	nee" whose mailing address is epublic of Korea
is desirous of acquiring the entire right, title and interest in the s	ome;
assignee my entire right, title and interest for the United Stal invention and the aforesaid utility patent application and all applications and patents applied for or granted therefor in the said invention, including without limitation all applications and patents applied for or granted therefor in the said invention, including without limitation all applications and patents are foreigned to take or treaty, a infringement with the right to surplied for and collect the same for it legal representatives, and including the right to claim such pri Trademarks is hereby authorized and requested to issue all passignee herein, as assignee of the entire interest is representatives, heirs and assignee of the entire interest is representatives, heirs and assignee or its assigns, to commit assignments thereof to said assignee or its assigns, to commit known to the undersigned respecting said improvements, where logal proceedings in which any of said applications or patents my rightful oaths, and to do generally everything necessary to all obtain patent protection for said improvements in all countries, and paid by said assignee.	original, divisional, continuation, substitute or relasue. United States of America and all other countries, for patents for said invention clalming priority or benefit of not including all claims for damages by reason of past is own use and the use of its successors, assigns and ority or benefit and the Commissioner of Patents and alents on said improvements or resulting therefrom to herein; and the undersigned for me and my legal and without further remuneration, to execute and deliver ions for Letters Patent on said improvements and all micate to said assignee or its representatives all facts lover requested, to testify in any interferences or other than the province of the said assignee, its successors, assigns and nominoes to the expenses incident to said applications to be borne.
And I do hereby authorize my attorneys to Insert on this deed th when known.	e filing date and application number of said application
S.010, 1, 4	ac 1506
Date	OH, Jae-Seung
die	
Witness	
Back, Jir Kyung	
Typed Name of Witness	
x *Total of 7 forms are submitted.	

LDLKM

	former PTO/S(3/15 (8-00) Modified UDUKSN
ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Oplianal)
Whereas, I. PARK, Ji-Won	of
3-105, LG Chemical Apartment, Doryong-dong, Yused	ong-qu, Daejoon 305-340, Republic of
Korea hereafter referred to as assignor, have with others invented cert ELECTROLYTE COMPRISING EUTECTIC MIXTUR USING THE SAME	
for which an application for a United States Letters Pate Application Number 12/523,092	ent was filed onJuly_14, 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	January 16, 2008 , as
PCT/KR2008/000272 , designating the United And	States.
Whereas, LG Chem, Ltd. a corporation of <u>Korea, Republic of</u> herein referred to as *assign 20, Yoido-dong, Youngdungpo-gu, Seoul 150-721, Re	ee" whose mailing address is public of Korea
is desirous of acquiring the entire right, title and interest in the sa	me;
assignee my entire right, title and interest for the United State invention and the aforesald utility patent application and all of applications and patents applied for or granted therefor in the said invention, including without limitation all applications and patents applied for or granted therefor in the said invention, including without limitation all applications and patents are forest the application pursuant to any law or treaty, are infringement with the right to sue for and collect the same for littlegal representatives, and including the right to claim such prior Trademarks is hereby authorized and requested to issue all pasaid assignee herein, as assignee of the entire interest the representatives, heirs and assignee of the entire interest the representatives, heirs and assignee or its assigns, to communicate thereof to said assignee or its assigns, to communicate the undersigned respecting said Improvements, when legal proceedings in which any of said applications or patents may rightful oaths, and to do generally everything necessary to aid 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	uriginal, divisional, continuation, substitute or reissue United States of America and all other countries, for atents for said invention claiming priority or benefit of idincluding all claims for damages by reason of past is own use and the use of its successors, assigns and writy or benefit and the Commissioner of Patents and itents on said improvements or resulting therefrom to serein; and the undersigned for me and my legal int without further remuneration, to execute and deliverous for Letters Patent on said improvements and all include to said assignee or its representatives all facts over requested, to testify in any interferences or other by become involved, to sign all lawful papers, make all assignee, its successors, assigns and nominoes to the expenses incident to said applications to be borne.
when known.	
Date	Park Ju Won PARK, Ji-Won
Date	PARK, Ji-Won
dí	
Witness	
Baek.jin kyung-	
Typed Name of Witness	
x *Total of 7 forms are submitted.	

	Dacket Number (Optional)
ASSIGNMENT OF UTILITY APPLICATION	Ducker Harrings (Christian
Whereas, I, HAN, Young-Kyu	of
121-203, Hanbit Apartment, Eoeun-dong, Yuseong-g	u, Daejeon 305-333, Republic of Korea
hereafter referred to as assignor, have with others invented cert ELECTROLYTE COMPRISING EUTECTIC MIXTUI USING THE SAME	
$_{ m X}$ for which an application for a United States Letters Pat Application Number $-1.2/523$ , $092$	ent was filed on <u>July 14, 2009</u>
for which an application for a United States Letters Pate	nt was executed by me on
x for which an International Application was filed on	January 16, 2008 , as
$\frac{\text{PCT/KR2008/000272}}{\text{And}} \text{ , designating the United}$	d States.
Whoreas, I.G Chem, Ltd.	
a corporation of <u>Korea, Republic of</u> herein referred to as "assig 20, Yoldo-dong, Youngdungpo-gu, Seoul 150-721, Re	nee" whose mailing address is public of Korea
is desirous of acquiring the entire right, fitle and interest in the s	ame;
NOW, THEREFORE, in consideration of the sum of one dialars (\$ 1.00 ), the receipt whereof is acknowledged, and other good and valuable consideration, I as assigner 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 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 horoby authorize my attorneys to insert on this deed the when known.	
<u> 2010 . 1. Y</u>	HAN, Young-Kyu
Date	HAN, Young-Kyu
<u>di</u>	
Witness	
Bask, Jin kyung- Typed Name of Witness	
x *Total of 7 forms are submitted.	

	fermer PTORIBITS (8-00) Modified COLIGAX
ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Oplional)
Whereas, I. JUNG, Jae-Hoon	of
203-270, EunEosong Maeul 2 Danji Apartment, 130, I 210, Republic of Korea	Daeseong-dong, Dong-gu, Daeleon 300-
herealter referred to as assigner, have with others invented cert ELECTROLYTE COMPRISING EUTECTIC MIXTUR USING THE SAME	nin new and useful improvements in RE AND SECONDARY BATTERY
X for which an application for a United States Letters Pate Application Number 12/523,092	entwas filed onJuly 14, 2009
for which an application for a United States Letters Paler	nt was executed by me on
x for which an international Application was filed on	January 16, 2008 , as
_PCT/KR2008/900272, dosignaling the United	States.
Whereas, LG Chem, Ltd.	
a corporation of Korea, <u>Republic of</u> herein referred to as "assign 20, Yoldo-dong, Youngdungpo-gu, Seoul 150-721, Re	nce" whose mailing address is public of Korea
is destrous of acquiring the entire right, title and interest in the sa	ante;
is acknowledged, and other good and valuable consideration, ageigned my entire right, title and interest for the United Statinvention and the alcresald utility patent application and all capplications and patents applied for or granted therefor in the said invention, including without limitation all applications and patents are presented utility application pursuant to any law or treaty, all infringement with the right to see for and collect the same for its lagar representatives, and including the right to claim such price trademarks in hereby authorized and requested to issue all patents assigned bearing as assigned of the entire interest it representatives, theirs and assigned of the entire interest the representatives, theirs and assigned on the entire interest the representatives, theirs and assigned on the entire interest the representatives, theirs and assigned on the applicational, divisional, continuation, release and other applications assignments thereof to said assigned or its assigns, to community to the undersigned respecting said improvements, when legal proceedings in which any of said applications or patents menghiful oaths, and to do generally everything necessary to all obtain patent protection for said improvements in all countries, and paid by said assigned.  And I do hereby sutherize my atterneys to insert on this dead the	ec of America and all other countries in and to said briginal, divisional, continuation, substitute or reissua United States of America and all other countries, for batents for said invantion daiming priority or benefit of indirection all claims for damages by reason of past as own use and the use of its successors, assigns and prity or benefit and the Commissioner of Patents and pricy or benefit and the commissioner of Patents and pricy or benefit and the undersigned for me and my legal in without further remuneration, to execute and dollver ions for Letters Patent on said improvements and all pricate to said assignee or its representatives all facts over requested, to testify in any interferences or other ay become involved, to sign all tawfor papers, make all dissignee, its successors, assigns and nominees to the expenses incident to said applications to be borne.
when known.	
	Jung, Jac-Hoon
Date	JUNG, Jag-Hoon
<u> </u>	
Witness	
Baek, jin kyung.	
Typed Name of Witness	
x *Total of 7 forms are submitted.	

PATENT

REEL: 024156 FRAME: 0750

**RECORDED: 03/29/2010** 

	tormer PTCASS///5 (8.00) Meditled LOLKA
ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Optional)
Whoreas, I. PARK, Jae-Duk	of
106-1203, Cheonggu narae Apartment, Jeonmin-dong Republic of Korea	<u> , Yuseong-gu, Daejeon 305-390,</u>
hereafter referred to as assigner, have with others invented cente ELECTROLYTE COMPRISING EUTECTIC MIXTUR USING THE SAME	
x for which an application for a United States Lotters Pate	ent was filed on <u>July 14, 2009</u>
Application Number 12/523,092	
for which an application for a United States Letters Pater	
(x) for which an International Application was filed on	January 16, 2008 , as
PCT/KR2008/000272 , designating the United And	States.
Whoreas, LG Chem, Ltd.	
a corporation of <u>Korea, Republic of</u> herein referred to as assign 20, Yoido-dong, Youngdungpo-gu, Seoul 150-721, Rej	ee" whose mailing address is public of Koree
is desirous of acquiring the entire right, title and interest in the sa	
	Volkars (\$ 1.00 ), the receipt whereof
Is acknowledged, and other good and valuable consideration, assignee my entire right, title and interest for the United State Invention and the aforesald utility patent application and as o applications and patents applied for or granted therefor in the said invention, including without limitation all applications and p the aforesald utility application pursuant to any law or treaty, an infringement with the right to sue for and collect the same for its legal representatives, and including the right to claim such prio Trademarks is hereby authorized and requested to issue all paid assignee herein, as assigned of the entire interest therepresentatives, heirs and assigned of the entire interest the representatives, heirs and assignee or its assigns, to communication, to issue and other applications assignments thereof to suid assignee or its assigns, to communication to the undersigned respecting said improvements, where legal proceedings in which any of said applications or patents maightful oaths, and to do generally overything necessary to aid obtain patent protection for said improvements in all countries, it and paid by said assignee.	es of America and all other countries in and to said riginal, divisional, continuation, substitute or reissue United States of America and all other countries, for attents for said invention claiming priority or benefit of including all claims for damages by reason of past cown use and the use of its successors, assigns and writy or benefit and the Commissioner of Patents and tents on said improvements or resulting therefrom to terein; and the undersigned for meand my legal at without further remuneration, to execute and deliverons for Lotters Patent on said improvements and all actate to said assignee or its representatives all facts ever requested, to testify in any Interferences or other my become involved, to sign all lawful papers, make all assignee, its successors, assigns and nominees to be expenses incident to said applications to be borne.
And I do hereby authorize my attorneys to insert on this deed the when known.	filing date and application number of said application
2010. 1.23	Pank, Jalduk
Onte	PARK, Jao-Duk
di	
Witness	
Back, Jin Kyung.	
Typed Name of Witness	
× *Total of 7 forms are submitted.	
x Total of 7 forms are submitted.	

PATENT REEL: 024156 FRAME: 0751