Form PTO-1595 (Rev. (9): 04) OMB No. 0651-0027 (exp. 6/30/2005)	U.S. DEPARTMENT OF COMMERCI United States Patent and Trademark Offic	
RECORDATION FORM COVER SHEET PATENTS ONLY		
To the Director of the U.S. Patent and Trademark Office: Please		
1. Name of conveying party(les)/Execution Date(s);	2. Name and address of receiving party(les)	
SANG HUN KIM (05/03/2011), JONG HWAN KIM (05/03/2011), HAN HO LEE (05/12/2011), AND JONG HYUN CHAE (05/03/2011)	Name: LG CHEM, LTD. Internal Address.	
Execution Date(s): in parentheses after inventor name	Street Address:	
Additional name(s) of conveying party(ies) attached? Yes X No	LG TWIN TOWERS	
3. Nature of Conveyance: X Assignment Merger	20, YEOUIDO-DONG YEONGDEUNGPO-GU	
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	
A. Patent Application No.(s) 13/259,927 Additional numbers attached?	8. Patent No.(s) Yes X No	
5. Name and address to whom correspondence concerning document should be mailed;	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	
Internal Address: Atty. Dkt.: LGCHEM 3.3-184	Authorized to be charged by credit card	
Street Address: 600 South Avenue West	X 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. Credit Card Last 4 Numbers	
Phone Number: (908) 518-6320 Fax Number: (908) 654-7866	Expiration Date b. Deposit Account Number 12-1095	
Email Address: khwang@ldlkm.com	Authorized User Name Kelly Y. Hwang	
9. Signature:		
	Sentember 26, 2011	
Signature	September 26, 2011 Date	
Kelly Y. Hwang - 51,831 Name of Person Signing	Total number of pages including cover sheet, attachments, and documents; 5	

PATENT REEL: 026997 FRAME: 0329

Increm PTO/SB/15 (8:00) ModBlot (1)(KAM

ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Optional)
Whereas, I. Sang Hun KIM	of
2. LG Employee Apt, Guyeollip, Doryong-dong, Yuser KOREA	ong-qu. Daejeon 305-340 REPUBLIC OF
hereafter referred to as assigner, have with others invented certa	ain new and usoful improvements in
Pouch type lithium secondary battery	Santambac 22 2041
X for which an application for a United States Letters Pate Application Number 13/259,927	ent was filed on September 25, 2011
for which an application for a United States Letters Paten	t was executed by me on
if or which an International Application was filed on	February 10, 2011 as
PCT/KR2011/000903, designating the United	States.
And	
Athereas, LG Chern Ltd.	See 18 18 18 18 18 18 18 18 18 18 18 18 18
a corporation of Korea. Republic of herein referred to as fassign	
LG Twin Towers; 20, Yeouldo-dong, Yeongdoungpo-qu, See	The state of the s
s desirous of acquiring the entire right, title and interest in the sa	טוס,
invention and the aforeasid utility patent application and all or applications and patents applied for or granted therefor in the least invention, including without limitation all applications and putility 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 properties assigned hereby authorized and requested to issue all putilities assigned hereby authorized and requested to issue all putilisarid assigned hereby authorized and requested to issue all putilisarid assigned hereby agree and covenaciall original, divisional, continuation, release and other application assignments thereof to said assigned or its assigns, to communication to the underzigned respecting said improvements, where legal proceedings in which any of said applications or patents may inghtful 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 when known.	United States of America and all other countries, for atents for said invention claiming priority or benefit of directeding all claims for damages by reason of passion use and the use of its successors, assigns and tents on said improvements or resulting therefrom tents on said improvements or resulting therefrom tents in and the undersigned for me and my legal without further remunoration, to execute and delivering for Letters Patent on said improvements and a missie to said assignee or its representatives all fact ever requested, to testify in any interferences or office by become involved, to sign all lawful papers, make a sastignee, its successors, assigns and nominees to expenses incident to said applications to be borning.
2-011 . 6 . 3	1 Contract
Date	Sang Hun KIM
Witness	
Typed Name of Witness	
x *Total of 4 forms are submitted	kom saksionaren ettaar istarrandekt mettikitariakinaan ararra errandaren errandaren errandaren errandaren erra



13)-5151

ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Optional)	
ASSIGNMENT OF BILLIT APPEICATION		
Whereas, I. Jong Hwan KIM	of	
7-303, LG Chemicals Employee Apt. Doryong dong, Yuseong-gu, Daeison 305-340 REPUBLIC OF KOREA		
hereafter referred to as assignor, have with others invented certal Pouch type lithium secondary battery	·	
X for which an application for a United States Letters Patent was filed on September 23, 2011 Application Number 13/259,927		
for which an application for a United States Letters Patent was executed by me on		
X for which an International Application was filed on February 10, 2011 . as		
PCT/KR2011/000903, designating the United States. And		
Whereas, LG Chem, Ltd	33,000,000	
a corporation of Koraa, Republic of herein referred to as 'assign	**	
LG Twin Towers, 26, Yeouldo-dong, Yeongdeungpo-gu; Serie desirous of acquiring the online right, title and interest in the as	and the second s	
NOW, THEREFORE, in consideration of the sum of one dollars (\$ 1.00), the receipt whereof is acknowledged, and other good and valuable consideration. Las 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 atcressed utility patient application and all original, divisional, continuation, substitute or reissue applications and patients or patients applications and patients 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 tegal representatives, and including the right to claim such priority or benefit and the Commissioner of Patients and Trademarks is hereby authorized and requested to issue all patients on said improvements or resulting therefrom to said assignce herein, as assigns do hereby agree and coverant without further remoneration, to execute and deliver all original, divisional, continuation, reissue and other applications for Letters Patient 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, whonever requested, to testify in any interferences or other legal proceedings in which any of said applications or patients may become involved, to sign all lawful papors, make all rightful oaths, and to do generally everything necessary to aid assignee, its successors, assigns and nominees to obtain patient 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.		
2011. 4.3	- Alway	
Date	Jong Hwan KIM	
Witness		
Typed Name of Witness		
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PA **ENTChem** 2331

"Total of

forms are submitted.

LD-515%

ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Optional)
Whoreas, I. Han Ho LEE	of
103-204, Hvundai Apt., 431-6, Doryong dong, Yuseo KOREA	no-au, Daejeon, 305-340 REPUBLIC OF
hereafter referred to as assignor, have with others invented cental Pouch type lithium secondary battery	
Pouch type lithium secondary battery X for which an application for a United States Letters Patc Application Number 13/259,927	ent was filed on
for which an application for a United States Letters Pater	it was executed by me on
tor which an International Application was filed on	February 10, 2011 as
PCT/KR2011/000903, designating the United	11 C 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
And	OMIGO.
Whoreas, LG Chem, Ltd.	
a corporation of Korea, Republic of herein referred to as "assign	3-
1.G Twin Towers: 20, Yeouido-dong, Yeongdeungpo gu; Social desirous of acquining the entire right, title and interest in the sa	
Invention and the aforesaid utility patent application and all of applications and patents applied for or granted therefor in the issaid invention, including without limitation all applications and patents are infringement with the right to sue for and collect the same for its legal representatives, and including the right to claim such prior Tradomarks is beroby authorized and requested to issue all passaid 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 applications assignments thereof to said assigned or its assigns, to communication to the undersigned respecting said improvements, where legal proceedings in which any of said applications or patents manightful oaths, and to do generally everything necessary to aid obtain patent protection for said improvements in all countries, to and paid by said assignee.	United States of America and all other countnes, for atents for said invention claiming priority or benefit of including all claims for damages by reason of past is own use and the use of its successors, assigns and rity or benefit and the Commissioner of Patents and tents on said improvements or resulting thorefrom to increin; and the undersigned for me and my legal at without further remineration, 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 teatify in any interferences or other by become involved, to sign all lawful papers, make all assignee, its successors, assigns and nominees to
And I do hereby authorize my attorneys to insert on this deed the when known.	filing date and application number of said application
white 11 , I . I fully	20
Date	Han Ho LFE
Witness	
Typed Namo of Witness	
Y *Total of A forms are submitted.	

PATENTChem 2002 REEL: 026997 FRAME: 0332

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	former PTO/SB/15 (8-00) Mickings FY KAM		
ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Optional)		
Whereas, I, Jong Hyun CHAE of			
208-901, Daedeok Techno Valley, 665, Gwanpyeong-dong, Yuseong-gu, Daeleon 305-509 REPUBLIC OF KOREA			
hereafter referred to as assigner, have with others invented certain new and useful improvements in Pouch type lithium secondary battery			
September 23, 2014 September 23, 2014			
for which an application for a United States Letters Patent was executed by me on			
for which an International Application was filed on February 10, 2011 PCT/KR2011/000903, designating the United States.			
And, designating the United	States.		
Whomas, LG Chem. Ltd.			
a corporation of Kosea Republic of herein referred to as "assign	ee" whose mailing address is		
LG Twin Towers; 20, Yeouido-dong; Yeongdaungpo-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 atcreasid utility patent application and all original, divisional, continuation, substitute or release applications and patents application application and all original, divisional, continuation, substitute or release applications and patents 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 intringement 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, heira and assigns do 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 papors, make all right to eath and of said applications or patents may become involved, to sign all lawful papors, make all right to eath and of sai			
And I do hereby authorize my attorneys to insort on this deed the filing date and application number of said application when known.			
2-011.5.3	2Made		
Date	Jong Hyun CHAE		
Witness			
Typed Name of Witness			
Y Total of A forms are submitted			

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