PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date	
Si-Jae PARK	03/12/2010	
Sang-Hyun LEE	03/12/2010	
Eun-Jeong LEE	03/12/2010	

RECEIVING PARTY DATA

Name:	LG Chem, Ltd.	
Street Address:	20 Yoido-dong	
City:	Youngdungpo-gu, Seoul	
State/Country:	REPUBLIC OF KOREA	
Postal Code:	150-721	

Name:	Korea Advanced Institute of Science and Technology		
Street Address:	373-1, Guseong-dong		
City:	Yuseong-gu, Daejeon		
State/Country:	REPUBLIC OF KOREA		
Postal Code:	305-701		

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	12676840	

CORRESPONDENCE DATA

Fax Number: (202)496-7756

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

Phone: 2024967500

Email: mlaip@mckennalong.com

Correspondent Name: McKenna Long & Aldridge LLP

Address Line 1: 1900 K Street, N.W.

Address Line 4: Washington, DISTRICT OF COLUMBIA 20006

PATENT

REEL: 024800 FRAME: 0519

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ATTORNEY DOCKET NUMBER:	29137.584.00
NAME OF SUBMITTER:	Matthew T. Bailey
Total Attachments: 2 source=584_Assignment#page1.tif source=584_Assignment#page2.tif	

PATENT REEL: 024800 FRAME: 0520

Docket No.: 29137.584.00

Assignment of Application

WHEREAS, I (WE) PARK, Si-Jae, LEE, Sang-Hyun, Lee Sang-Yup, LEE, Eun-Jeong, respectively, have invented certain new and useful improvements in:

MUTANTS METHOD F	HAVING CAPAE OR PREPARING 1	31L1TY TO ,4-BUTANE	PRODUCE EDIOL USING	1,4-BUTANEDI 5 THE SAME	OL AND
for which a	n application for a I	Letters Pater	t was executed	d on	
	n application for a l		t was filed on	March 05	, 2010
as Applicat	ion No	12/676,840			
WHEREAS.	LG CHEM, LTD	١.,			
	KOREA ADVAN		ITUTE OF S	CIENCE AND	
	TECHNOLOGY				
(hereinafter re	ferred to as "ASSIG	NEE") havii	ng a place of b	ousiness at:	
20, Yoido-don	g, Youngdungpo-gu	ı, Seoul, Rep	oublic of Kore	a 150-721,	
373-1, Guseon	g-dong, Yuseong-g	u, Daejeon 3	05-701, Repu	blic of Korea	

is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries and the entire right, title and interest in and to any and all Letters patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

I (WE) hereby authorize and request the Patent Office Officials in the United States and Its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire right, title and interest in and to the same, for the sole use and behalf of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

Further, I (WE) agree that I (WE) will communicate to said ASSIGNEE or its (his) representatives any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

The undersigned hereby grant(s) the firm of McKenna Long & Aldridge LLP, Attorneys at Law, 1900 K Street, N.W., Washington, D.C. 20006 the power to insert on

Docket No.: 29137.584.00

this assignment any further identification, including the application number and filing date, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

Date: March 12, 2010

McKenna Long & Aldridge LLP

Attorneys At Law 1900 K Street, N.W. Washington, D.C. 20006