Form PTO-1595 (Rev. 09/ 04) OMB No. 0851-0027 (exp. 6/30/2005)	U.S. DEPARTMENT OF COMMER United States Patent and Trademark O
RECORDATION FO	RM COVER SHEET
PATENT	S ONLY
To the Director of the U.S. Patent and Trademark Office: Pleas	e record the attached documents or the new address(oc) below
 Name of conveying party(les)/Execution Date(s): 	Name and address of receiving party(les)
JUN-SEON CHOI (06/26/2008), BYOUNG-GI PARK (06/26/2008), JIN-DO KIM (06/27/2008),	party(les)
AND HYUNE-JUNG RYU (06/27/2008)	
	Name:LG CHEM, LTD.
Formula B 4 4 3 .	Internal Address:
Execution Dale(s): in parentheses after inventor name	Straet Address:
Additional name(s) of conveying party(ies) attached? Yes X No	LG TWIN TOWERS
3. Nature of Conveyance:	20, YEOUIDO-DONG
X Assignment Merger	YEONGDEUNGPO-GU
Security Agreement Change of Name	On GROUN
Government interest Assignment	Clty:SEOUL
Executive Order 9424, Confirmatory License	Stare:
	Country: Republic of Korea Zip: 150-721
Other	Additional name(s) & address(es) Yes X No
4. Application or patent number(s):	<u> </u>
A. Palent Application No.(s)	This ducument is being filed together with a new application.
12/217,246	E. Patent No.(s)
· I - · -	1
	l <u> </u>
Additional numbers attached?	Yes X No
Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and petents involved:
ame: Kelly Y. Hwang	
LERNER, DAVID, LITTENBERG,	
KRUMHOLZ & MENTLIK, LLP	7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00
ternal Address: Ally. Dkt.: LGCHEM 3.0-016	Authorized to be charged by credit card
Iraal Addrage, SAA C	
treet Address: 600 South Avenue West	Authorized to be charged to deposit account
	Enclosed
	= -
	None required (government interest not affecting title)
y: Westfleld	8. Payment Information
ate; NJ zip: 07090	a. Credit Card Last 4 Numbers
one Number: (908) 518-6320	Expiration Date
x Number:(908) 654-0415	b. Deposit Account Number 12-1095
nali Address: khwang@ldlkm.com	Authorized User Name Kelly Y. Hwang
ignature:	
18 TA	
Signature	<u>8/01/08</u>
Kelly Y. Hwang - 51,831	Date Total number of pages including
Name of Person Signing	Total number of pages including cover sheet, attachments, and documents: 5

904332_1.DOC

PATENT REEL: 021348 FRAME: 0767

ASSIGNMENT OF UTILITY APPLICATION LGCHEM 3,0-016 Whereas, I. CHOI, Jun-seon 202-602 Expo Apt., Jeonmin-dong, Yuseong-gu, Daejeon 305-761 Republic of Korea dereafter referred to as assignor, have with others invented certain new and useful Improvements in THERMAL-CRACKING METHOD OF HYDROCARBON To which an application for a United States Letters Patent was filed on Application Number 12/217,246 for which an application for a United States Letters Patent was executed by me on for which an International Application was filed on , as , designating the United States.		former PTO/SB/15 (8-00) Modified LDLH
Whereas, I. CHOI, Jun-seon 202-602 Expo Apt., Jeonmin-dong, Yuseong-qu, Daejeon 305-761 Republic of Korea lereafter referred to as assignor, have with others invented certain new and useful improvements in THERMAL-GRACKING METHOD OF HYDROCAREION X for which an application for a United States Letters Patent was filed on Application Number 12/217, 246 for which an application for a United States Letters Patent was executed by me on for which an application for a United States Letters Patent was executed by me on	ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Optional)
ereaffer referred to as assignor, have with others invented certain new and useful improvements in THERMAL-CRACKING METHOD OF HYDROCARBON Yes which an application for a United States Letters Patent was filed on Application Number 12/217,246		LGCHEM 3.0-016
ereaffer referred to as assignor, have with others invented certain new and useful improvements in THERMAL-CRACKING METHOD OF HYDROCARBON Yes which an application for a United States Letters Patent was filed on Application Number 12/217,246	Whereas I. CHOL.tur-seen	
THERMAL-CRACKING METHOD OF HYDROCARBION THERMAL-CRACKING METHOD OF HYDROCARBION	202-602 Expo Apt., Jeonmin-dong, Vuscenz du Desi	of
X for which an application for a United States Letters Patent was field on July 2, 2008	nereafter referred to as assignor, here with others investigated	eon 305-761 Republic of Korea
Application Number 12/217,246 Application Number 12/217,246 for which an application for a United States Letters Patent was executed by me on for which an application for a United States Letters Patent was executed by me on , as , designating the United States. If or which an International Application was filed on , as , designating the United States. If or which an International Application was filed on , as , designating the United States. If or which an International Application was filed on , as , designating the United States. 20. Yoldo-dong, Youngdungpo-gu, Secul 150-721 Republic of Korea desirous of acquiring the entire right, title and interest in the same; 20. Yoldo-dong, Youngdungpo-gu, Secul 150-721 Republic of Korea desirous of acquiring the entire right, title and interest in the same; 20. Yoldo-dong, Youngdungpo-gu, Secul 150-721 Republic of Korea desirous of acquiring the entire right, title and interest for the United States of America and all other counties in and to said careful and the aforesald utility patent application and all original, divisional, continuation, substitute or reissue di Invention, including without limitation all applications and patents for said invention claiming priority or benefit or interest, and including all claims for damages by reason of pas air representatives, and including the right to claim such priority or benefit or damages by reason of pas air expressentatives, and including the right to claim such priority or benefit or benefit and the Commissioner of Patents and desarratives in the patents and all requested to issue all patents on said improvements or results freefrom to resentatives, heirs and assigned of the entire interest therein; and the undersigned for me and my legal original, divisional, continuation, referse and covernant without further remuneration, to execute and deliver patents and all designations, continuation, referse and covernant without further remuneration. If the patent protection for said improvements in all countries, the e	THERMAL-CRACKING METHOD OF HYDDOGADE	in new and useful Improvements in
Application Number 12/217,246 for which an application for a United States Letters Patent was executed by me on for which an International Application was filed on , as designating the United States. Ind , designating the United States. A general of Korea, Republic of herein referred to as "assignee" whose mailing address is 20, Yoldo-dong, Youngdungpo-gu, Seoul 150-721 Republic of Korea desirous of acquiring the entire right, little and interest in the same; OW, THEREFORE, in consideration of the sum of pne dollars (\$ 1.00), the receipt where acknowledged, and other good and valuable consideration, as assigner hereby sell, assign and set over to said eignee my entire right, title and interest for the United States of America and all other countries in and to said plications and patents applied for or granted therefor in the United States of America and all other countries, for indication, including without limitation all applications and patents for said invention claiming priority or benefit or ingement with the right to use for and collect the same for its own uses and the use of its successors, assigns and indemarks is hereby authorized and requested to issue all patents on said improvements or resulting thereform to dismarks in hereby authorized and requested to issue all patents on said improvements or resulting thereform to dismarks in hereby authorized and requested to issue all patents on said improvements or resulting therefore to the senting and improvements or resulting therefore to the united states of the entire interest therein; and the undersigned for me and my legal original, divisional, continuation, reliesue and other applications to teleties Patent on said improvements and all proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all proceedings in which any of said applications or patents are whenever requested, to testify in any interferences or other all proceedings in which any of said applications or patents may be come in	x for which an application for the form	<u></u>
for which an International Application was filed on	Application Number $\frac{12}{217}$, 246	
for which an International Application was filed on	for which an application for a United States Letters Patent	t was executed by me on
Thereas, LG Chem, Ltd. Corporation of Korea, Republic of herein referred to as "assignee" whose mailing address is 20, Yoldo-dong, Youngdungpo-gu, Seoul 150-721 Republic of Korea desirous of acquiring the entire right, title and interest in the same; 20, Wr. THEREFORE, in consideration of the sum of one dollars (\$ 1.00), the receipt whereo acknowledged, and other good and valuable consideration, is as assignor hereby sell, assign and set over to said sention and the aforesaid utility patent application and all original, divisional, continuation, substitute or reissue plications and patents applied for or granted therefor in the United States of America and all other countries, to di invention, including without limitation all applications and patents for said invention claiming priority or benefit of invention, including without limitation all applications and patents for said invention claiming priority or benefit or ingement with the right to use for and collect the same for its own use and the use of its accessors, assigns and all representatives, and including the right to claim such priority or benefit and the Commissioner of Patents and all representatives, heirs and assigns do hereby agree and coverant without further remuneration, to execute and deliver resentatives, heirs and assigns do hereby agree and coverant without further remuneration, to execute and deliver ignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives and its more interest therein; and the undersigned respecting said improvements for Letters Patent on said improvements and all ignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts all proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all aims the undersigned respecting said improvements, whenever requested, to testify in any interferences or other full or the part of		 '
Thereas, LG Chem, Ltd. Corporation of Korea, Republic of herein referred to as "assignee" whose mailing address is 20, Yoldo-dong, Youngdungpo-gu, Seoul 150-721 Republic of Korea desirous of acquiring the entire right, title and interest in the same; 20, Wr. THEREFORE, in consideration of the sum of one dollars (\$ 1.00), the receipt whereo acknowledged, and other good and valuable consideration, is as assignor hereby sell, assign and set over to said sention and the aforesaid utility patent application and all original, divisional, continuation, substitute or reissue plications and patents applied for or granted therefor in the United States of America and all other countries, to di invention, including without limitation all applications and patents for said invention claiming priority or benefit of invention, including without limitation all applications and patents for said invention claiming priority or benefit or ingement with the right to use for and collect the same for its own use and the use of its accessors, assigns and all representatives, and including the right to claim such priority or benefit and the Commissioner of Patents and all representatives, heirs and assigns do hereby agree and coverant without further remuneration, to execute and deliver resentatives, heirs and assigns do hereby agree and coverant without further remuneration, to execute and deliver ignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives and its more interest therein; and the undersigned respecting said improvements for Letters Patent on said improvements and all ignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts all proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all aims the undersigned respecting said improvements, whenever requested, to testify in any interferences or other full or the part of		States.
20, Yoldo-dong, Youngdungpo-gu, Seoul 150-721 Republic of Korea desirous of acquiring the entire right, title and interest in the same; DW, THEREFORE, in consideration of the sum of one dollars (\$ 1.00), the receipt wherece acknowledged, and other good and valuable consideration, as assignor heraby sell, assign and set over to said signee my entire right, title and interest for the United States of America and all other countries in and to said pilications and patents applied for or granted therefor in the United States of America and all other countries, to di invention, including without limitation all applications and patents for sald invention and all other countries, to a storesaid utility application pursuent to any law or treaty, and including all claims for damages by reason of pas at a representatives, and including the right to dain such pricrity or benefit or its successors, assigns and all enterestatives, and including the right to dain such pricrity or benefit and the Commissioner of Patents and demarks is hereby authorized and requested to issue all patents on said Improvements or resulting therefrom to di assignee to hereby agree and coverant without further remuneration, to execute and deliver interest therein; and the undersigned for me and my legal ensentatives, heirs and assigns do hereby agree and coverant without further remuneration, to execute and deliver interest therein; and the undersigned for me and my legal interest thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts all proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all proceedings in which are particularly to the expenses incident to said application to be borne in particular to the particu	ANG	
desirous of acquiring the entire right, title and interest in the same; DW. THEREFORE, in consideration of the sum of one dollars (\$ 1.00), the receipt whereo acknowledged, and other good and valuable consideration, is a sasignor hereby sell, assign and set over to sais signee my entire right, title and interest for the United States of America and all other countries in and to said rention and the aforesaid utility patent application and all original, divisional, continuation, substitute or relissue of invention, including without limitation all applications and patents applied for or granted therefor in the United States of America and all other countries, for a invention, including without limitation all applications and patents for said invention claiming priority or benefit or a foresaid utility application pursuant to any law or treaty, and including all claims or damages by reason of passal representatives, and including the right to claim such priority or benefit and the Commissioner of Patents and designed 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 eliver resentatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver 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 improvements and all proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all all proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all all patent protection for said improvements in all countries, the expenses incident to said applications to be borne paid by said assignee. LEE, Hyun-jung Typed Name of Witness	Vhereas, <u>LG Chern, Ltd.</u>	
desirous of acquiring the entire right, title and interest in the same; DW. THEREFORE, in consideration of the sum of one dollars (\$ 1.00), the receipt whereo acknowledged, and other good and valuable consideration, is a sasignor hereby sell, assign and set over to sais signee my entire right, title and interest for the United States of America and all other countries in and to said rention and the aforesaid utility patent application and all original, divisional, continuation, substitute or relissue of invention, including without limitation all applications and patents applied for or granted therefor in the United States of America and all other countries, for a invention, including without limitation all applications and patents for said invention claiming priority or benefit or a foresaid utility application pursuant to any law or treaty, and including all claims or damages by reason of passal representatives, and including the right to claim such priority or benefit and the Commissioner of Patents and designed 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 eliver resentatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver 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 improvements and all proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all all proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all all patent protection for said improvements in all countries, the expenses incident to said applications to be borne paid by said assignee. LEE, Hyun-jung Typed Name of Witness	corporation of Korea, Republic of herein referred to as "assigne	e" whose mailing address is
DW, THEREFORE, in consideration of the sum of one dollars (\$ 1.00), the receipt whereca acknowledged, and other good and valuable consideration, as assignor hereby sell, assign and set over to said acknowledged, and other good and valuable consideration, as assignor hereby sell, assign and set over to said selfone my entire right, title and interest for the United States of America and all other countries in and to said plications and patents applied for or granted therefor in the United States of America and all other countries, for a foresaid utility application pursuant to any law or treaty, and including all claims or damages by reason of passing a representatives, and including the right to claim such priority or benefit or ingement with the right to sue for and collect the same for its own use and the use of its successors, assigns and all erepresentatives, and including the right to claim such priority or benefit and the Commissioner of Patents and demarks is hereby authorized and requested to issue all patents on said Improvements or resulting therefrom to describe herein, as assigned of the entire interest therein; and the undersigned for me and my legal original, divisional, continuation, relissue and other applications for Letters Patent on said improvements and all proceedings in which any of said applications or patents may become involved, to stign all lawful papers, make all proceedings in which any of said applications or patents may become involved, to stign all lawful papers, make all alm patent protection for said improvements, whenever requested, to testify in any interferences or other fittle oaths, and to do generally everything necessary to aid assignee, its successors, assigns and nominees to a paid patent protection for said improvements in all countries, the expenses incident to said applications to be borned to have a patent protection for said improvements whenever requested to said application number of said application and the commissioner of the papers, make all protections of th		
DW, THEREFORE, in consideration of the sum of one dollars (\$ 1.00), the receipt whered acknowledged, and other good and valuable consideration, i as assignor hereby sell, assign and set over to said seignee my entire right, title and interest for the United States of America and all other countries in and to said regions and patents application patents application and all original, divisional, continuation, substitute or reissue di invention, including without limitation all applications and patents for said invention claiming priority or benefit or a doresaid utility application pursuant to any law or treaty, and including all claims for damages by reason of past all representatives, and including the right to claim such priority or benefit and the Commissioner of Patents and all representatives, and including the right to claim such priority or benefit and the Commissioner of Patents and dealermarks is hereby authorized and requested to issue all patents on said Improvements or resulting therefrom to disciplinations, hereby authorized and requested to issue all patents on said Improvements or resulting therefrom to disciplination, 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 sign to the undersigned respecting said improvements whenever requested, to testify in any interferences or other information undersigned respecting said improvements, whenever requested, to testify in any interferences or other tight. The undersigned respecting said improvements, whenever requested, to testify in any interferences or other fluid oaths, and to do generally everything necessary to aid assignee, its successors, assigns and nominees to paid by said assignee. If do hereby authorize my attorneys to Insert on this deed the filing date and application number of said application in known. Tane 3. Date 3. Date 4. Date 4. Date 4. Date 4. Date 5. Date 5. Date 6. Date 6. Date 6.	desirous of acquiring the entire right, title and interest in the	ublic of Korea
signee my entire right, title and interest for the United States of America and all other countries in and to said rention and the aforesaid utility patent application and all original, divisional, continuation, substitute or relisuate di invention, including without limitation all applications and patents applied for or granted therefor in the United States of America and all other countries, for a direction, including without limitation all applications and patents for said invention claiming priority or benefit or a doresaid utility application pursuant to any law or treaty, and including all claims for damages by reason of pass all representatives, and including the right to claim such priority or benefit and the Commissioner of Patents and all representatives, and including the right to claim such priority or benefit and the Commissioner of Patents and all representatives, heirs authorized and requested to issue all patents on said Improvements or resulting therefrom to resentatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver original, divisional, continuation, relissue and other applications for Letters Patent on said improvements and all originments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts all proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all air proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all air patent protection for said improvements in all countries, the expenses incident to said applications to be borne and patent protection for said improvements in all countries, the expenses incident to said applications to be borne. CHOI, Jun-seon Tight Name of Witness		
Date CHOI, Jun-seon Witness LEE, Hyun-jung Typed Name of Witness	aid invention, including without limitation all applications and pate aforesaid utility application pursuant to any law or treaty, and fringement with the right to sue for and collect the same for its original representatives, and including the right to claim such priority ademarks is hereby authorized and requested to issue all pate all assignee herein, as assignee of the entire interest their presentatives, heirs and assigns do hereby agree and covenant original, divisional, continuation, reissue and other applications ignments thereof to said assignee or its assigns, to communic own to the undersigned respecting said improvements, whenever all proceedings in which any of said applications or patents may hifful oaths, and to do generally everything necessary to aid at taln patent protection for sald improvements in all countries, the dipaid by said assignee.	ents for sald invention claiming priority or benefit of including all claims for damages by reason of past own use and the use of its successors, assigns and by or benefit and the Commissioner of Patents and its on said improvements or resulting therefrom to rein; and the undersigned for me and my legal without further remuneration, to execute and deliver is for Letters Patent on said improvements and all ate to said assignee or its representatives all facts are requested, to testify in any interferences or other become involved, to sign all lawful papers, make all ssignee, its successors, assigns and nominees to expenses incident to said applications to be borne
Witness LEE, Hyun-jung Typed Name of Witness	-	~^^ ·
Witness LEE, Hyun-jung Typed Name of Witness	June 26, 2008	Jusseon Choi
Witness LEE, Hyun-jung Typed Name of Witness	Date	CHOI, Jun-seon
LEE, Hyun-jung Typed Name of Witness		
Typed Name of Witness		
*Total of 4 forms are submitted.		
		1

ACCIONISTATION	former PTO/SB/15 (8-00) Modified Lt Docket Number (Optional)
ASSIGNMENT OF UTILITY APPLICATION	LGCHEM 3.0-016
Whereas, I, PARK, Byoung-gi	
2-307 LG Petrochemical Sataek, Soho-dong, Yeosu-s Korea	i, Jeollanam-do 555-060 Republic of
hereafter referred to as assignor, have with others invented certa	
THERMAL-CRACKING METHOD OF HYDROCARBO	ain new and useful improvements in
x for which an application for a United States Letters Pate	ent was filed on July 2, 2008
Application Number	
for which an application for a United States Letters Paten	t was executed by me on
for which an International Application was filed on	 as
, designating the United	
Aliu	
Whereas, LG Chem, Ltd.	
a corporation of Korea, Republic of herein referred to as "assigne	
20, Yoldo-dong, Youngdungpo-gu, Seoul 150-721 Repi	ublic of Korea
Is desirous of acquiring the entire right, title and interest in the san	ne;
nvention and the aforesaid utility patent application and all original invention and the aforesaid utility patent application and all original invention, including without limitation all applications and patent applications and patent aforesaid utility application pursuant to any law or treaty, and infringement with the right to sue for and collect the same for its capal representatives, and including the right to claim such priority rademarks is hereby authorized and requested to issue all patential assignee herein, as assignee of the entire interest therefore a subject of the entire interest interest in entire interest in entire interest in entire interest interest in entire interest in e	ents for said invention claiming priority or benefit of including all claims for damages by reason of past own use and the use of its successors, assigns and by or benefit and the Commissioner of Patents and ints on said improvements or resulting therefrom to rein; and the undersigned for me and my legal without further remuneration, to execute and deliver as for Letters Patent on said improvements and all ate to said assignee or its representatives all facts or requested, to testify in any interferences or other become involved, to sign all lawful papers, make all expenses incident to said applications to be borned.
nd I do hereby authorize my attorneys to insert on this deed the fill hen known. Date Witness LEE, Hyun-jung Typed Name of Witness	PARK, Byoung-gl
Total of 4 forms are submitted	

	former PTO/SB/15 (8-00) Modified LDL
ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Optional)
	LGCHEM 3.0-016
3A/h	
Whereas, I, KIM, Jin-do	of
108-201 Nuri Apt., Wolpyeong-dong Seo-gu Daejeon	302-280 Republic of Korea
hereafter referred to as assignor, have with others invented certs THERMAL-CRACKING METHOD OF HYDROCARBO	ON
$oxed{x}$ for which an application for a United States Letters Pare Application Number $oxed{12/217,246}$	ent was filed on July 2, 2008
for which an application for a United States Letters Paten	
for which an International Application was filed on	, as
And , designating the United	States.
Whereas, _LG Chern, Ltd.	
a corporation of Korea, Republic of herein referred to as "assigned	to whose mall
20, Yoido-dong, Youngdungpo-gu, Seoul 150-721 Rep	ublic of Korea
Is desirous of acquiring the entire right, title and interest in the sar	ne;
invention and the aforesaid utility patent application and all or applications and patents applied for or granted therefor in the Usaid Invention, including without limitation all applications and patents applied for or granted therefor in the Usaid Invention, including without limitation all applications and patents aforesaid utility application pursuant to any law or treaty, and infringement with the right to sue for and collect the same for its degat representatives, and including the right to claim such priorioriorized and requested to issue all patents all assignee herein, as assignee of the entire interest the representatives, heirs and assigns do hereby agree and covenant all original, divisional, continuation, reissue and other application assignments thereof to said assignee or its assigns, to communication to the undersigned respecting said improvements, whenever a proceedings in which any of said applications or patents may lightful oaths, and to do generally everything necessary to aid a abtain patent protection for said improvements in all countries, the and light of the patents and the paid by said assignee.	inted states of America and all other countries, for tents for said invention claiming priority or benefit of including all claims for damages by reason of past own use and the use of its successors, assigns and try or benefit and the Commissioner of Patents and ints on said improvements or resulting therefrom to rein; and the undersigned for me and my legal without further remuneration, to execute and deliver is for Letters Patent on said improvements and all sate to said assignee or its representatives all facts or requested, to testify in any interferences or other become involved, to sign all lawful papers, make all salgnee, its successors, assigns and nominees to expenses incident to said applications to be borne
06/01/08	Fri Change
Date Witness	KIM, Jin-do
LEE, Hyun-jung Typed Name of Witness	
x *Total of 4 forms are submitted	
X Total of 4 forms are submitted,	

L[)L	Κ	М
ᆫ	,_	ı	٦

	former PTO/SB/15 (8-00) Modified Lor			
ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Optional)			
	LGCHEM 3.0-016			
Na				
Whereas, I, RYU, Hyune-jung	of			
Korea Korea				
hereafter referred to as assignor, have with others invented certain THERMAL CRACKING ASSIGNATION	ain new and useful improvements in			
THERMAL-CRACKING METHOD OF HYDROCARBO	ON .			
x for which an application for a United States Letters Pate	ent was filed on Turlar 2 2009			
Application Number 12/217,246	3dly 2, 2008			
for which an application for a United States Letters Paten	t was executed by me			
for which an International Application was filed on				
And, designating the United	States.			
Whereas, LG Chem, Ltd.				
a corporation of Korea, Republic of herein referred to as "assigned				
20, Yoido-dorig, Youngdungpo-gu, Seoul 150-721 Rep	ublic of Korea			
Is desirous of acquiring the entire right, title and interest in the sa	ne;			
assignee my entire right, title and Interest for the United States invention and the aforesaid utility patent application and all or applications and patents applied for or granted therefor in the Last invention, including without ilmitation all applications and patents applied for or granted therefor in the Last invention, including without ilmitation all applications and patents aforesaid utility application pursuant to any law or treaty, and infringement with the right to sue for and collect the same for its egal representatives, and including the right to claim such priori frademarks is hereby authorized and requested to issue all patents and assignee of the entire interest the expresentatives, heirs and assignee of the entire interest the expresentatives, heirs and assigns do hereby agree and covenant all original, divisional, continuation, reissue and other application assignments thereof to said assignee or its assigns, to community to the undersigned respecting said improvements, whenever a supplication of the undersigned respecting said improvements, whenever a supplication of patents may be a supplication of patents may be a supplied to a said assignee.	girial, divisional, continuation, substitute or reissue inited States of America and all other countries, for tents for said invention claiming priority or benefit of including all claims for damages by reason of passown use and the use of its successors, assigns and ty or benefit and the Commissioner of Patents and ents on said improvements or resulting therefrom to the undersigned for me and my legal without further remuneration, to execute and deliver as for Letters Patent on said improvements and all cate to said assignee or its representatives all facts or requested, to testify in any interferences or other become involved, to sign all lawful papers, make all assignee, its successors, assigns and nomlnees to expenses incident to said applications to be borned.			
nd I do hereby authorize my attorneys to insert on this deed the fi hen known.	ling date and application number of said application			
06/2n/08	Ruy House -			
Date	1941e-Jang			
	RYU Hyune-Jung RYU, Hyune-jung			
-XV 9				
Witness				
LEE, Hyun-jung				
Typed Name of Witness				
x *Total of 4 forms are submitted				
x Total of 4 forms are submitted.				

PATENT REEL: 021348 FRAME: 0774

RECORDED: 08/01/2008