Form PTO-1595 (Rev. 09/ 04) DM <u>B No. 0651-0027 (exp. 6/30/2005)</u>	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):	Name and address of receiving party(les)
BO-RYEONG HAN (06/08/2009), MOON- SEOK CHUN (06/15/2009), DO-YEON PARK	
(06/15/2009), SU-KYUNG KIM (06/18/2009),	
(Name: LG CHEM, LTD.
	Internal Address:
Execution Date(s): In parentheses after inventor name	Street Address:
Additional name(s) of conveying party(ies) attached? X Yes No	LG TWIN TOWERS
3. Nature of Conveyance:	20, YEOUIDO-DONG
	YEONGDEUNGPO-GU
Security Agreement Change of Name	SFOUL
	City:SEOUL
Executive Order 9424, Confirmatory License	Country: <u>Republic of Korea</u> Zip: <u>150-721</u>
Other	Additional name(s) & address(es)
4. Application or patent number(s):	This document is being filed together with a new application.
A. Patent Application No.(s)	B. Patent No.(s)
12/516,006	
·	
Additional numbers attached	 ?Yes _X_No
 Name and address to whom correspondence concerning document should be malled: 	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 3.3-105	Authorized to be charged by credit card
Street Address: 600 South Avenue West	X Authorized to be charged to deposit account
	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	Expiration Date
Fax Number: (908) 654-0415	b. Deposit Account Number 12-1095
Email Address: khwang@ldlkm.com	Authorized User Name Kelly Y. Hwang
9. Signature:	
	July 30, 2009
\$ignature	Date
Keily Y. Hwang - 51,831 Name of Person Signing	Total number of pages including cover 9 sheet, attachments, and documents:

۲

Form PTO-1595	RECOR	DATION FORM COVER SHEET (continued)	
Additional Conveying Party(ies)/Execution Date(s) (1. Continued):			
Chong-min Koo (0	6/10/2009), Bum-jae Le	æ (06/17/2009), and Choel-han Ga	ng (06/17/2009)
Additional Assigr	nees (2. Continued):		
Internal Address: Street Address:			
City:	State:	Country:	Zip:
Assignee Name:			
Internal Address:			
Street Address:			
City;	State:	Country:	Zip:
Assignee Name:			
Internal Address:			
Street Address:			
City:	State:	Country:	Zip:
Additional Applications and/or Patents (4. Continued):			
Additional Patent Applicat 4A, Continued:	tion Numbers	Addillonal Patent Numbers 4B. Continued:	
	Additional numbers	attached?	

Docket No.: LGCHEM 3.3-105

PATENT REEL: 023030 FRAME: 0226

	former PTO/SB/15 (8-00) Modified LDLK&M
	Docket Number (Optional)
ASSIGNMENT OF UTILITY APPLICATION	LGCHEM 3.3-105
Whereas, I, <u>Bo-ryeong Han</u>	of
<u>6-305 LG Chem. Sawon Apt.: Doryong-dong, Yuseong⊣</u> 340	gu: Daejeon; REPUBLIC OF KOREA 305-
	is a set well be recomparing
hereafter referred to as assignor, have with others invented cert POLYMER PARTICLES HAVING POLYMER BRUSH	
SAME	· · · · · · · · · · · · · · · · · · ·
X for which an application for a United States Letters Pate	ent was filed on May 22, 2009
Application Number 12/516,006	
for which an application for a United States Letters Pater	t was executed by me on
for which an International Application was filed on	November 19, 2007 as
PCT/KR2007/005802 , designating the United	States.
And	1
Whereas, LG Chem, Ltd.	
a corporation of Korea, Republic of herein referred to as "assign	ee" whose mailing address is
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 State	es of America and all other countries in and to said
invention and the aforesaid utility patent application and all o applications and patents applied for or granted therefor in the	Inginal, divisional, continuation, substitute or reissue United States of America and all other countries, for
said invention, including without limitation all applications and p	atents for said invention claiming priority or benefil of
the aforesaid utility application pursuant to any law or treaty, ar	
Infringement with the right to sue for and collect the same for its legal representatives, and including the right to claim such price	s own use and the use of its successors, assigns and it with or benefit and the Commissioner of Patents and
Trademarks is hereby authorized and requested to issue all pa	tents on said improvements or resulting therefrom to
said assignee herein, as assignee of the entire interest th	nerein; and the undersigned for me and my legal
representatives, heirs and assigns do hereby agree and covenal all originat, divisional, continuation, reissue and other application	nt without further remuneration, to execute and deliver one for Letters Patent on said improvements and all
assignments thereof to said assignee or its assigns, to commut	nicate to said assignee or its representatives all facts
known to the undersigned respecting said improvements, when	
legal proceedings in which any of said applications or patents r all rightful oaths, and to do generally everything necessary to a	
obtain patent protection for said improvements in all countries, t	
and paid by said assignee.	
And I do hereby authorize my attorneys to insert on this deed the	e filing date and application number of sald application
when known.	1
1 1 - Bel Dank	Bai a Al-
<u>- 06/08/ 2007</u>	Porfeonz Am
Date	v8o-ryeong Han
LATTA - A VERAL AUN :	
Min-greany AMN Witness	
Min-Qyeong NHN	
Typed Name of Witness	
· · · · · · · · · · · · · · · · · · ·	
x Total of 7 forms are submitted.	
D-5151	

1022577 -1 DOC



	fgmar PTO/SB/15 (8-00) Modified LDLKaM Docket Number (Optional)	
ASSIGNMENT OF UTILITY APPLICATION	LGCHEM 3.3-105	
Mart and Chup	of	
Whereas, I. <u>Moon-seok Chun</u> <u>108-101 Daerimdure Apt.; Sinseono-dong, Yuseono-du;</u>	Daejeon: REPUBLIC OF KOREA 305-	
<u>720</u>		
hereafter referred to as assignor, have with others invented certs POLYMER PARTICLES HAVING POLYMER BRUSH SAME	ain new and useful improvements in AND METHOD OF PREPARING THE	
× for which an application for a United States Letters Patent was filed on <u>May 22, 2009</u>		
Application Number <u>12/516,006</u> for which an application for a United States Letters Patent was executed by me on,		
tor which an application for a United States Letters Fateric was executed by the 0.1 , tor which an International Application was filed on <u>November 19, 2007</u> , as		
PCT/KR2007/005802 , designating the United	States.	
Whereas, LG Chern, Ltd. a corporation of Korea, Republic of herein referred to as "assign	nee" whose mailing address is	
LG Twin Towers; 20, Yeouido-dong; Yeongdeungpo-gu; Se	oul; REPUBLIC OF KOREA 150-721	
is desirous of acquiring the entire right, title and interest in the st	amë;	
NOW, THEREFORE, in consideration of the sum of <u>one</u> is acknowledged, and other good and valuable consideration, assignee my entire right, title and interest for the United Stat 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 p the aforesaid utility application pursuant to any law or treaty, a infringement with the right to sue 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 pu said assignee herein, as assignee of the entire interest t representatives, heirs and assignee of the entire interest a all original, divisional, continuation, reliseue and other applicat assignments thereof to said assignee or its assigns, to commu- known to the undersigned respecting said improvements, when legal proceedings in which any of said applications or patents all rightful oaths, and to do generally everything necessary to a obtain patent protection for said improvements in all countries, 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 batents for said invention claiming priority or benefit of nd 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 atents on said improvements or resulting therefrom to herein; and the undersigned for me and my legal unt without further remuneration, to execute and deliver ions for Letters Patent on said improvements and all inclate to said assignee or its representatives all facts ever requested, to testify in any interferences or other may become involved, to sign all tawful papers, make aid assignee, its successors, assigns and nominees to the expenses incident to said applications to be borne	
when known. 6 - 15, 2007	Moon Seole Chun	
Date	Moon-seok Chun	
Min-gyeony AHN		
Witness		
Min-gyeony AHN		
Typed Name of Witness		
x *Total of 7 forms are submitted.		
LD-515\		



	former PTO/SB/15 (6-00) Modified LOLK&M
	Docket Number (Optional)
ASSIGNMENT OF UTILITY APPLICATION	LGCHEM 3.3-105
Whereas, I, <u>Do-yeon Park</u>	of
413 Sunhwa Cityville; 123-2 Sunhwa-dong, Jung-gu; Da	aeieon; REPUBLIC OF KOREA 301-824
hareafter referred to as assignor, have with others invented cart POLYMER PARTICLES HAVING POLYMER BRUSH SAME	sin new and useful improvements in
X for which an application for a United States Letters Pat	ent was filed on May 22, 2009
Application Number 12/516,006	
for which an application for a United States Letters Pate	nt was executed by me on
for which an International Application was filed on	November 19, 2007 _{, as}
PCT/KR2007/005802 designating the United	d States.
And	
Whereas, LG Chem, Ltd.	
a corporation of Korea. Republic of herein referred to as "assig	nee" whose malling address (8
LG Twin Towers; 20, Yeouldo-dong; Yeongdeungpo-gu; Se is desirous of acquiring the entire right, title and interest in the e	eme:
NOW, THEREFORE, in consideration of the sum of <u>one</u>	dollars (\$ <u>1.00</u>), the receipt whereof
NOW, THEREPORE, in consideration of the sum of <u>mon</u> is acknowledged, and other good and valuable consideration, assignee my entire right, title and interest for the United Sta invention and the aforesaid utility patent application and all applications and patents applied for or granted therefor in the said invention, including without limitation ell applications and the aforesaid utility application pursuant to any law or treaty, a infringement with the right to sue for and collect the same for I legal representatives, and including the right to claim such pr Trademarks is hereby authorized and requested to issue all p said assignee herein, as assignee of the entire interest representatives, heirs and assignee or its assigne, to comm known to the undersigned respecting said improvements, what legal proceedings in which any of said applications or patents all rightful oaths, and to do generally everything necessary to obtain patent protection for said improvements in all countries, and paid by said essignee.	tes of America and an onter contracted and the barrent original, divisional, continuation, substitute or reissue a United States of America and all other countries, for patents for said invention claiming priority or benefit of and including all claims for damages by reason of past its own use and the use of its successors, assigns and lority or benefit and the Commissioner of Patents and latents on said improvements or resulting therefrom to therein; and the undersigned for me and my legal ant without further remuneration, to execute and deliver tions for Letters Patent on said improvements and all unicate to said assignee or its representatives all facts never requested, to testify in any interferences or other may become involved, to sign all lawful papers, make aid assignee, its successors, assigns and nominees to the expenses incident to said applications to be borne
when known.	J I
June. 15, 2009	dypark
Date	Do-yeon Park
Min-gyeog AHN Witness Min-gyeong AHN Typed Name of Witness	
Total of 7 forms are submitted.	
LD-515	



	tormer PTO/SB/15 (8-00) Modified LDLK&M
ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Optional) LGCHEM 3.3-105
Whereas, I, <u>Su-kyung Kim</u>	of
541-7 Namji-n; Namji-eup, Changnyeong-gun; Gyeongs	angnam-do: REPUBLIC OF KOREA 635-
<u>903</u>	-i
hereafter referred to as assignor, have with others invented cart. POLYMER PARTICLES HAVING POLYMER BRUSH SAME	
x for which an application for a United States Letters Pate Application Number 12/516,006	ent was filed on <u>May 22, 2009</u>
for which an application for a United States Letters Pate	nt was executed by me on
\mathbf{x} for which an international Application was filed on	
PCT/KR2007/005802, designating the United	i States.
And	
Whereas, <u>LG Chem, Ltd.</u> a corporation of <u>Korea, Republic of</u> herein referred to as "assign	nee" whose mailing address is
LG Twin Towers; 20, Yeouido-dong; Yeongdeungpo-gu; Se	oul; REPUBLIC OF KOREA 150-721
is desirous of acquiring the entire right, title and interest in the sa	
NOW, THEREFORE, in consideration of the sum of <u>one</u> is acknowledged, and other good and valuable consideration, assignee my entire right, tille and interest for the United Stat invention and the aforesaid utility patent application and all a applications and patents applied for or granted therefor in the said invention, including without limitation all applications and p the aforesaid utility application pursuant to any law or treaty, a infringement with the right to sue 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 pa said assignee herein, as assignee of the entire interest t representatives, heirs and assignee or its assigns, to commu- known to the undersigned respecting said improvements, when legal proceedings in which any of said applications or patents all rightful oaths, and to do generally everything necessary to a obtain patent protection for said improvements in all countries, and paid by said assignee.	es of America and all other countres in and to said original, divisional, continuation, substitute or reissue United States of America and all other countries, for batents for said invention claiming priority or benefit of nd including all claims for damages by reason of past ts own use and the use of its successors, assigns and ority or benefit and the Commissioner of Patents and atents on said improvements or resulting therefrom to herein; and the undersigned for me and my legal unt without further remuneration, to execute and deliver ions for Letters Patent on said Improvements and all inicate to said assignee or its representatives all facts ever requested, to testify in any Interferences or other may become involved, to sign all lawful papers, make aid assignee, its successors, assigns and nominees to the expenses incident to said applications to be borne
And I do hereby authorize my attorneys to insert on this deed in when known.	
June 18, 2009	
Date	Su-kyung Kim
Min-greeny AHN Witness	
Min - gyeong AHN Typed Name of Witness	
x *Total of 7 forms are submitted. LD-515\	



.

	former PTC/SB/15 (8-00) Modified LOLKEN
ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Optional)
	LGCHEM 3.3-105
Whereas, I, <u>Chong-min Koo</u>	of
<u>106-1305 Chunggu Narae Apt.; Jeonmin-dong, Yuseong</u> 305-729	<u>p-qu; Daejeon; REPUBLIC OF KOREA</u>
<u>305-729</u> hereafter referred to as assignor, have with others invented certa POLYMER PARTICLES HAVING POLYMER BRUSH SAME	ain new and useful improvements in AND METHOD OF PREPARING THE
x for which an application for a United States Letters Pate Application Number 12/516,006	ent was filed onMay 22, 2009
for which an application for a United States Letters Pater	was executed by me on
for which an International Application was filed on ¹	
PCT/KR2007/005802 , designating the United	States.
And	
Whereas, <u>LG_Chem, Ltd.</u> a corporation of <u>Korea, Republic of</u> herein referred to as "assign	
LG Twin Towers; 20, Yeouido-dong; Yeongdeungpo-gu; Se	
is desirous of acquiring the entire right, title and interest in the sa	
assignee my entire right, title and interest for the United State invention and the aforesaid utility patent application and all o applications and patents applied for or granted therefor in the said invention, including without limitation all applications and pi- the aforesaid utility application pursuant to any law or treaty, and infringement with the right to sue for and collect the same for its legel representatives, and including the right to claim such prior Trademarks is hereby authorized and requested to issue all pa- said assignee herein, as assignee of the entire interest the representatives, heirs and assignee or its assigns, to commun- known to the undersigned respecting said improvements, whene legal proceedings in which any of said applications or patents in all rightful oaths, and to do generally everything necessary to ai obtain patent protection for said improvements in all countries, th and paid by said assignee.	riginal, divisional, continuation, substitute or reissue United States of America and all other countries, for alents for said invention claiming priority or benefit of dincluding all claims for damages by reason of past sown use and the use of its successors, assigns and rity or benefit and the Commissioner of Patents and tents on said Improvements or resulting therefrom to terrain; and the undersigned for me and my legal in without further remuneration, to exacute and deliver ons for Letters Patent on said improvements and all hicate to said assignee or its representatives all facts ever requested, to testify in any interferences or other hay become involved, to sign all lawful papers, make d assignee, its successors, assigns and nominees to he 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
June 10, 2009	
Date	Chong-min Ko
Min - gyeory AHN Witness	
Min-gyeong AHN	
Typed Name of Witness	
·····	
x Total of 7 forms are submitted.	· · · · · · · · · · · · · · · · · · ·
D-315	

PATENT REEL: 023030 FRAME: 0231

ASSIGNMENT OF UTILITY APPLICATION LGCHEM 3.3-105 Whereas, I. Bum-jae Lee 115-806 Nurl Apt: Wolpyeong-dong. Seo-gu: Daeleon: REPUBLIC OF KOREA 302-280 hereafter referred to as assignor, have with others invented certain new and useful Improvements in POLYMER PARTICLES HAVING POLYMER BRUSH AND METHOD OF PREPARING THE SAME X for which an application for a United States Letters Patent was filed on May 22, 2009 Application Number 12/516,006 for which an application for a United States Letters Patent was executed by me on X for which an International Application was filed on November 19, 2007 as PCT/KR2007/005802 , designating the United States. wd Vhereas, LG Chem, Ltd. corporation of Korea. Republic of herein referred to as "assignee" whose mailing address is LQ Twin Towers; 20, Yeouido-dong; Yeongdeungpo-gu; Seoul; REPUBLIC OF KOREA 150-721 edesirous of acquiring the entire right, title and interest in the same; VW, THEREFORE, in consideration of the sum of ong dollars (\$ 1.00), the rece acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set o ssignee my entire right, title and interest for the United States of America and all other countries in a serie of admerica and all other countries in a satigneem which	of
115-806 Nurl Apt.: Wolpyeong-dong. Seo-gu: Daeleon: REPUBLIC OF KOREA 302-280 hereafter referred to as assignor, have with othere invented certain new and useful improvements in POLYMER PARTICLES HAVING POLYMER BRUSH AND METHOD OF PREPARING THE SAME X for which an application for a United States Letters Patent was filed on May 22, 2009 Application Number 12/516,006 if or which an application for a United States Letters Patent was filed on May 22, 2009 Application Number 12/516,006 if or which an application for a United States Letters Patent was executed by me on Image: Solution of Comparison of the an International Application was filed on November 19, 2007, as PCT/KR2007/005802 , designating the United States. And Whereas, LG Chem, Ltd. corporation of Kgrea, Republic of herein referred to as "assignee" whose mailing address is	
115-806 Nurl Apt.: Wolpyeong-dong. Seo-gu: Daeleon: REPUBLIC OF KOREA 302-280 hereafter referred to as assignor, have with othere invented certain new and useful improvements in POLYMER PARTICLES HAVING POLYMER BRUSH AND METHOD OF PREPARING THE SAME X for which an application for a United States Letters Patent was filed on May 22, 2009 Application Number 12/516,006 if or which an application for a United States Letters Patent was filed on May 22, 2009 Application Number 12/516,006 if or which an application for a United States Letters Patent was executed by me on Image: Solution of Comparison of the an International Application was filed on November 19, 2007, as PCT/KR2007/005802 , designating the United States. And Whereas, LG Chem, Ltd. corporation of Kgrea, Republic of herein referred to as "assignee" whose mailing address is	
hereafter referred to as assignor, have with others invented certain new and useful improvements in POLYMER PARTICLES HAVING POLYMER BRUSH AND METHOD OF PREPARING THE SAME x for which an application for a United States Letters Patent was filed on <u>May 22, 2009</u> Application Number <u>12/516,006</u> for which an application for a United States Letters Patent was executed by me on x for which an international Application was filed on <u>November 19, 2007</u> , as PCT/KR2007/005802, designating the United States. And Whereas, <u>LG Chem, Ltd.</u> corporation of <u>Korea, Republic of</u> herein referred to as "assignee" whose mailing address is <u>LG Twin Towers; 20, Yeouido-dong; Yeongdeungpo-gu; Seoul; REPUBLIC OF KOREA 150-721</u> is desirous of acquiring the entire right, title and interest in the same; IOW, THEREFORE, in consideration of the sum of <u>one</u> dollars (S <u>1.00</u>), the rece is acknowledged, and other good and valuable consideration, I as assigner hereby sell, assign and set o add Invention, including without limitation all application and all original, divisional, continuation, substitute pplications and patente applied for or granted therefor in the United States of America and all other countries in a wention and the aforesaid utility patent application and all original, divisional, continuation, substitute pplications and patente applied for or granted therefor in the United States of America and all other countries in a gal representatives, and including the right to any law or treaty, and including all dams for damages by reaz gal representatives, and including the right to a same or its own use and the use of its euccessore, a gal representatives, and including the right to taim such priority or benefit and the Commissioner of ad assignee herein, as assignee of the entire interest therein; and the undersigned for me and presentatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute a original, divisional, continuation, reissue and one applications for Lettere	E
POLYMER PARTICLES HAVING POLYMER BRUSH AND METHOD OF PREPARING THE SAME X for which an application for a United States Letters Patent was filed on May 22, 2009 Application Number 12/516,006 for which an application for a United States Letters Patent was executed by me on X for which an application for a United States Letters Patent was executed by me on X for which an International Application was filed on November 19, 2007, as PCT/KR2007/005802 , designating the United States. And Whereas, LG Chem, Ltd. Corporation of Korea, Republic of herein referred to as "assignee" whose mailing address is LG Twin Towers; 20, Yeouido-dong; Yeongdeungpo-gu; Seoul; REPUBLIC OF KOREA 150-721 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 rece acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set o signee my entire right, title and interest for the United States of America and all other countries in a worthion and the aforesaid utility patent applications and patents for seld invention claiming priority o e aforesaid utility application and all original, divisional, continuation, substitute polications and patents applied for or granted therefor in the United States of America and all other coald Invention, including without limitation all applications and patents for seld invention claiming priority o e aforesaid utility application pursuant to any law or treaty, and including all claims for damages by reas fringement with the right to sue for and collect the same for its own use and the use of the successors, as gal representatives, and including the right to claim such priority or benefit and the Commissioner of P rademarks is hereby authorized and requested to lssue all patents on said improvements or resulting th is data ssignee of the entire interest therein; and the undersigned for me and presentatives, heirs and assigns do hereby agree and covenant without further remunersion	E
Application Number <u>12/516,006</u> for which an application for a United States Letters Patent was executed by me on for which an International Application was filed on <u>November 19, 2007</u> as <u>PCT/KR2007/005802</u> , designating the United States. Not Whereas, <u>LG Chem, Ltd.</u> corporation of <u>Korea</u> . <u>Republic of</u> herein referred to as "assignee" whose mailing address is <u>LG Twin Towers; 20, Yeouido-dong; Yeongdeungpo-gu; Seoul; REPUBLIC OF KOREA 150-721</u> a desirous of acquiring the entire right, title and interest in the same; IOW, THEREFORE, in consideration of the sum of <u>one</u> dollars (S <u>1.00</u>), the rece acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set o ssignee my entire right, title and interest for the United States of America and all other countries in a swention and the aforesaid utility patent applications and patents for seld invention claiming priority of the aforesaid utility application pursuant to any law or treaty, and including all claims for damages by read gal representatives, and including the right to sue for and collect the same for its own use and the use of its successors, at gal representatives, and including the right to daim such priority or benefit and the Commissioner of P redemarks is hereby authorized and requested to Issue all patents on said improvements or resulting the add assignee herein, as assignee of the entire interest therein; and the undersigned for me and presentiatives, helrs and assigns do hereby agree and covenant without further remuneration, to execute a longinal, divisional, continuation, reissue and other applications for Letters Patent on said improvements or resulting the assignee of the entire interest therein; and the undersigned for me and presentiatives, helrs and assigns do hereby agree and covenant without further remuneration, to execute a longinal, divisional, continuation, reissue and other applications for Letters Patent on said improvement	,
Image: State of the second state and the regord and valuable consideration, including without limitation all application and all original, divisional, continuation, substitute pplication and patents of sale of the entire only and other consideration and the undersigned for meand all oppresentatives, and including the right to daim such priority or benefit and the Commissioner of Patentarius, and including the right to daim such priority or benefit and the commissioner of Patentarius, and including the right to daim such priority or benefit and the commissioner of Patentarius, and including the right to daim such priority or benefit and the Commissioner of Patentarius, and including the right to daim such priority or benefit and the Commissioner of Patentarius, and including the right to daim such priority or benefit and the Commissioner of Patentarius, heirs and assignee of the entire interest therein; and the undersigned for meand all oppresentatives, heirs and assignee of the entire interest therein; and the undersigned for meand all oppresentatives, heirs and assignee of the entire interest therein; and the undersigned for meand all oppresentatives, heirs and assignee of the entire interest therein; and the undersigned for meand all oppresentatives, heirs and assignee of the entire interest therein; and the undersigned for meand all oppresentatives, heirs and assignee of the entire interest therein; and the undersigned for meand all oppresentatives, heirs and assignee of the entire interest therein; and the undersigned for meand all oppresentatives, heirs and assignee of the entire interest therein; and the undersigned for meand all oppresentatives, heirs and assignee of the entire interest therein; and the undersigned for meand all oppresentatives, heirs and assignee of the entire interest therein; and the undersigned for meand all oppresentatives.	,
PCT/KR2007/005802 , designating the United States. and Whereas, LG Chem, Ltd. corporation of Korea, Republic of herein referred to as "assignee" whose mailing address is LG Twin Towers; 20, Yeouido-dong; Yeongdeungpo-gu; Seoul; REPUBLIC OF KOREA 150-721 desirous of acquiring the entire right, title and interest in the same; IOW, THEREFORE, in consideration of the sum of <u>one</u> dollars (S <u>1.00</u>), the rece acknowledged, and other good and valuable consideration. I as assignor hereby sell, assign and set o ssignee my entire right, title and interest for the United States of America and all other countries in a swention and the aforesaid utility patent applications and patents for seld invention, substitute pplications and patents applied for or granted therefor in the United States of America and all other countries in a fringement with the right to sue for and collect the same for its own use and the use of its successors, as gal representatives, and including the right to claim such priority or benefit and the Commissioner of P rademarks is hereby authorized and requested to issue all patents on said improvements or resulting thald assignee herein, as assignee of the entire interest therein; and the undersigned for me and ald assignee herein, as assignee of the entire interest therein; and the undersigned for me and ald assignee herein, as assignee of the entire interest therein; and the undersigned for me and ald assignee herein, as assignee of the entire interest therein; and the undersigned for me and all orginal, divisional, continuation, reissue and other applications for Letters Patent on said improvement orginal, divisional, continuation, reissue and other applications for Letters Patent on said improvement orginal, divisional, continuation, reissue and other applications for Letters Patent on said improvement	,
And	
 Whereas, LG Chem, Ltd. corporation of Korea, Republic of herein referred to as "assignee" whose mailing address is LG Twin Towers; 20, Yeouido-dong; Yeongdeungpo-gu; Seoul; REPUBLIC OF KOREA 150-721 desirous of acquiring the entire right, title and interest in the same; IOW, THEREFORE, in consideration of the sum of one dollars (\$ 1.00), the rece acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set o ssignee my entire right, title and interest for the United States of America and all other countries in a wention and the aforesaid utility patent applications and patents of seld invention, substitute pplications and patents applied for or granted therefor in the United States of America and ell other coald invention, including without limitation all applications and patents for seld invention claiming priority of the aforesaid utility application pursuant to any law or treaty, and including all claims for damages by readifingement with the right to sue for and collect the same for its own use and the use of its successors, and gal representatives, and including the right to claim such priority or benefit and the Commissioner of Prademarks is hereby authorized and requested to issue all patents on said improvements or resulting thald assignee herein, as assignee of the entire interest therein; and the undersigned for me and lores and assignee of the entire interest therein; and the undersigned for me and presentatives, heirs and assignee of the entire interest therein; and the undersigned for me and interest and collectine applications for Leaters Patent on said improvements or resulting the add assignee herein, as assignee of the entire interest therein; and the undersigned for me and interest therein; and the undersigned for me and lorestatives, heirs and assigns do hereby agree and covenant without further remuneration, lo execute at original, divisional, continuation, reissue and other applications for Leaters Patent on said imp	
LG Twin Towers; 20, Yeouido-dong; Yeongdeungpo-gu; Seoul; REPUBLIC OF KOREA 150-721 desirous of acquiring the entire right, title and interest in the same; IOW, THEREFORE, in consideration of the sum of <u>one</u> dollars (S <u>1.00</u>), the rece acknowledged, and other good and valuable consideration. I as assignor hereby sell, assign and set o signee my entire right, title and interest for the United States of America and all other countries in a wention and the aforesaid utility patent application and all original, divisional, continuation, substitute pplications and patents applied for or granted therefor in the United States of America and all other countries in a strong without limitation all applications and patents for seld invention claiming priority of the aforesaid utility application pursuant to any law or treaty, and including all claims for damages by reas fringement with the right to sue for and collect the same for its own use and the use of its successore, at gal representatives, and including the right to claim such priority or benefit and the Commissioner of P rademarks is hereby authorized and requested to issue all patents on said improvements or resulting th ald assignee herein, as assignee of the entire interest therein; and the undersigned for me and presentatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute a l original, divisional, continuation, reissue and other applications for Letters Patent on said improvement	
a desirous of acquiring the entire right, title and interest in the same; IOW, THEREFORE, in consideration of the sum of <u>one</u> dollars (S <u>1.00</u>), the rece acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set of signee my entire right, title and interest for the United States of America and all other countries in a wention and the aforesaid utility patent application and all original, divisional, continuation, substitute pplications and patents applied for or granted therefor in the United States of America and all other countries in a add invention, including without limitation all applications and patents for solid invention claiming priority of the aforesaid utility application pursuant to any law or treaty, and including all claims for damages by reas fingement with the right to sue for and collect the same for its own use and the use of its successore, as reademarks is hereby authorized and requested to issue all patents on said improvements or resulting the alid assignee herein, as assignee of the entire interest therein; and the undersigned for me and loresentatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute a lorginal, divisional, continuation, reissue and other applications for Letters Patent on said improvements or orginal, divisional, continuation, reissue and other applications for Letters Patent on said improvements assignee in the said assignee of the applications for Letters Patent on said improvements orginal, divisional, continuation, reissue and other applications for Letters Patent on said improvements is a said in the said assignee of the applications for Letters Patent on said improvements in the applications and other applications for Letters Patent on said improvements in the applications and patents in the sate in the sate in the sate interest in the sate in	
IOW, THEREFORE, in consideration of the sum of <u>one</u> dollars (S <u>1.00</u>), the rece s acknowledged, and other good and valuable consideration. I as assignor hereby sell, assign and set o ssignee my entire right, title and interest for the United States of America and all other countries in a wention and the aforesaid utility patent application and all original, divisional, continuation, substitute pplications and patents applied for or granted therefor in the United States of America and ell other countries in a add invention, including without limitation all applications and patents for seld invention claiming priority of the aforesaid utility application pursuant to any law or treaty, and including all claims for damages by reas fringement with the right to sue for and collect the same for its own use and the use of its successors, at gal representatives, and including the right to claim such priority or benefit and the Commissioner of P rademarks is hereby authorized and requested to issue all patents on said improvements or resulting tha ald assignee herein, as assignee of the entire interest therein; and the undersigned for me and presentatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute a l'original, divisional, continuation, reissue and other applications for Letters Patent on said improvement	
acknowledged, and other good and valuable consideration. I as assignor hereby sell, assign and set o ssignee my entire right, title and interest for the United States of America and all other countries in a ivention and the aforesaid utility patent application and all original, divisional, continuation, substitute pplications and patents applied for or granted therefor in the United States of America and all other countries in a ald invention, including without limitation all applications and patents for seld invention claiming priority of the aforesaid utility application pursuant to any law or treaty, and including all claims for damages by reas fringement with the right to sue for and collect the same for its own use and the use of its successors, an gal representatives, and including the right to claim such priority or benefit and the Commissioner of P rademarks is hereby authorized and requested to issue all patents on said improvements or resulting the ald assignee herein, as assignee of the entire interest therein; and the undersigned for me and presentatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute a l original, divisional, continuation, reissue and other applications for Letters Patent on said improvements.	
ssignments thereof to said assignee or its assigns, to communicate to said assignee or its representative nown to the undersigned respecting said improvements, whenever requested, to testify in any interference gal proceedings in which any of said applications or patents may become involved, to sign all lawful pap i rightful oaths, and to do generally everything necessary to ald assignee, its successors, assigns and no plain patent protection for said improvements in all countries, the expenses incident to said applications to d paid by said assignee.	r benefit son of pa sissigns a latents an erefrom i my leg and dellv nts end es all faces or oth pers, mal ominees o be borr
Burnova Burnova	
Date Bum-jae Lee	
Min-greeny AHN	
Witness	
Min-greeng AHN	
Typed Name of Witness	
Total of 7 forms are submitted.	

PATENT REEL: 023030 FRAME: 0232

.

······································	former PTO/SB/15 (8-00) Medified LDLK&l Docket Number (Optional)
ASSIGNMENT OF UTILITY APPLICATION	LGCHEM 3.3-105
Whereas, I. Choel-han Gang	of
	<u> </u>
<u>103-1004 Youngiin Royal Apt.; Bup-dong, Daeduk-gu; D</u>	
hereafter referred to as assignor, have with others invented certa POLYMER PARTICLES HAVING POLYMER BRUSH SAME	
For which an application for a United States Letters Patr Application Number 12/516,006	ent was filed onMay 22, 2009
for which an application for a United States Letters Pater	t was executed by me on
for which an International Application was filed on	November 19, 2007 _{as}
And , designating the United	olaies.
Whereas, LG Chem, Ltd.	
a corporation of Korea, Republic of herein referred to as "assign	
LG Twin Towers; 20, Yeouido-dong; Yeongdeungpo-gu; Se	
is desirous of acquiring the entire right, title and interest in the sa	ime;
applications and patents applied for or granted therefor in the said invention, including without limitation all applications and p the aforesaid utility application pursuent 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 pric Trademarks is hereby authorized and requested to issue all pa said 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 communic assignments thereof to said assignee or its assigns, to communic known to the undersigned respecting said improvements, when legal proceedings in which any of said applications or patents r all rightful oaths, and to do generally everything necessary to a obtain patent protection for said improvements in all countries, t and paid by said assignee.	atents for said invention claiming priority or benefit of nd including all claims for damages by reason of past s own use and the use of its successors, assigns and trity or benefit and the Commissioner of Patents and tents on said improvements or resulting therefrom to terein; and the undersigned for me and my legal ht 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 lestify in any interferences or other nay become involved, to sign all lawful papers, make d assignee, its successors, assigns and nominees to he expenses incident to said applications to be borne
when known.	o 11
06/11/2009	han's
	Mario-
Date /	Choel-han Gang
	Choel-han Gang
Date Min -gyeony AHN Witness	Choel-han Gang
Min-gyeony AHN	Choel-han Gang
Min-gyeong AHN Witness	Choel-han Gang
Min-gyeony AHN Witness Min-gyeong AHN	Choel-han Gang
Min-gyeony AHN Witness Min-gyeong AHN	Choel-han Gang

RECORDED: 07/30/2009