PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HYUN-CHEOL RYU	06/13/2014
JEA SUNG PARK	06/13/2014
DONG-HO LEE	06/13/2014
EUN-JEONG KIM	06/13/2014
GUI RYONG AHN	06/13/2014
SUNG EUN PARK	06/13/2014

RECEIVING PARTY DATA

Name:	HANWHA CHEMICAL CORPORATION	
Street Address:	(JANGGYO-DONG) 86,	
Internal Address:	ress: CHEONGGYECHEON-RO, JUNG-GU	
City:	SEOUL	
State/Country:	REPUBLIC OF KOREA	
Postal Code:	100-787	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14366063

CORRESPONDENCE DATA

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Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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NAME OF SUBMITTER:	DOUGLAS W. SWARTZ
SIGNATURE:	/Douglas W. Swartz/
DATE SIGNED:	06/17/2014

502854488 REEL: 033117 FRAME: 0055

Total Attachments: 2

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PATENT REEL: 033117 FRAME: 0056

Worldwide Assignment

WHEREAS, I/We RYU, Hyun-Cheol; PARK, Jea Sung ; LEE, Dong-Ho; KIM, E u	ın-Jeong ;
AHN, Gui Ryong and PARK, Sung Eun, have made an invention entitled METHOD	FOR
MANUFACTURING POLYSILICON for which I/We have prepared an application for Lett	ers Patent of
the United States, or filed an application for Letters Patent of the United States on	
June 17, 2014 , under Application No14/366,063	_; and

WHEREAS, HANWHA CHEMICAL CORPORATION ("ASSIGNEE"), a corporation or other business entity duly registered in the State/Country of Republic of Korea, whose address is (Janggyo-dong) 86, Cheonggyecheon-ro, Jung-gu, Seoul 100-797, Republic of Korea, desires to acquire the entire right, title, and interest in and to the invention, the application, and any Letters Patent to be granted for the invention in the United States and in all foreign countries;

NOW, THEREFORE, in view of good and valuable consideration, paid to me/us by ASSIGNEE, the receipt and sufficiency of which I/We acknowledge, I/We, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto ASSIGNEE, its successors, legal representatives, and assigns, the entire right, title, and interest in and to the invention, the application, all applications claiming benefit of the application, including, but not limited to, all divisions and continuation of the application, and all Letters Patent that may be granted thereon in the United States, and in all foreign countries, and all reissues thereof, together with the right to claim priority under the International Convention in all member countries; and I/We authorize and request the Director of Patents and Trademarks to issue all Letters Patent for the invention to ASSIGNEE, its successors, legal representatives, and assigns in accordance with the terms of this Assignment;

AND I/We covenant and agree that I/We have the full right to convey the entire right, title, and interest herein assigned and that I/We have not executed and will not execute any assignment or other instrument in conflict with this Assignment;

AND I/We further covenant and agree that upon request by ASSIGNEE, its successors, legal representatives, and/or assigns, and without further consideration, I/We will do all lawful acts that may be necessary or desirable to assist ASSIGNEE, its successors, legal representatives, and/or assigns to obtain and enforce patent protection for the invention in the United States and in all foreign countries, including, but not limited to, communicate with ASSIGNEE, its successors, legal representatives, and/or assigns any facts known to me/us regarding the invention, testify in any legal proceeding, sign all lawful papers, execute and deliver all papers that may be necessary or desirable to perfect the title to the invention in ASSIGNEE, its successors, legal representatives, and/or assigns, execute all divisional, continuation, and reissue applications, and make all rightful oaths, it being understood that any expense incident to the rendering of such assistance will be borne by ASSIGNEE, its successors, legal representatives, and/or assigns;

AND I/We further hereby authorize ASSIGNEE, or its attorneys or agents, to insert the correct Application Number and filing Date into this Assignment, if none is indicated on that date of my/our execution of this agreement.

IN WITNESS WHEREOF, I/We have executed this Assignment on the date(s) indicated below.

Signature:_	Ryn, Phyun - Chevl
Date:	13, June, 2014
Full Name:	RYU, Hyun-Cheol
Address	205, 253-21, Sinseong-dong, Yuseong-gu, Daejeon 305-805, Republic of Korea

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Signature: PARK, JEA SUNCT Date: /3 June 2014 Full Name: PARK lea Sung
Date: /3 June 2014
Full Name: PARK, Jea Sung
Address 302-805, Gukhwa Apt., Dunsan 3-dong, Seo-gu, Daejeon 302-782, Korea
Signature: LEE, Dong-Ho
Signature: LEE, Dong-Ho Date: 13 June 2014 Full Name: 155 Dans Ho
Full Name: <u>LEE, Dong-Ho</u>
Address 101-1309, Damoa Apt., Wolpyeong 3-dong, Seo-gu, Daejeon 302-749, Korea
Signature: Kim Eun - Jeons
Signature: Kim Eun-Jeong Date: 13 June 2014
Full Name: KIM, Eun-Jeong
Address 106-504, Daelim Dure Apt., Sinseong-dong, Yuseong-gu, Daejeon 305-720, Korea
Signature: AMN Gwilyow. Date: 13 June, 2014
Date: 13 June, 2014
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Signature: Park Sny Euro Date: 13 June 30 Kf
Date: 13 June Dolf
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