#### 504982131 06/28/2018

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5028877

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
SUNG REAL SON	06/12/2018
JI MIN KIM	06/13/2018
MIN JI SUNG	06/18/2018
SANG UK KIM	06/18/2018
JUNG YUL SON	06/14/2018

#### **RECEIVING PARTY DATA**

Name:	SK INNOVATION CO., LTD.	
Street Address:	reet Address: 26, JONG-RO, JONGNO-GU	
City:	SEOUL	
State/Country:	KOREA, REPUBLIC OF	
Postal Code:	03188	
Name:	SK GLOBAL CHEMICAL CO., LTD.	
Street Address:	26, JONG-RO, JONGNO-GU	
City:	SEOUL	
City: State/Country:	SEOUL KOREA, REPUBLIC OF	

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	16021588

#### **CORRESPONDENCE DATA**

**Fax Number:** (412)471-4094

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.

**Phone:** (412)471-8815

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Correspondent Name: THE WEBB LAW FIRM
Address Line 1: ONE GATEWAY CENTER

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PATENT 504982131 REEL: 046228 FRAME: 0471

ATTORNEY DOCKET NUMBER:	1455-1804720	
NAME OF SUBMITTER: RICHARD L. BYRNE		
SIGNATURE:	/Richard L. Byrne/	
DATE SIGNED:	06/28/2018	

## **Total Attachments: 5**

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PATENT REEL: 046228 FRAME: 0472

RECORDATION FORM COVER SHEET		
PATENTS ONLY		
To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.		
1. Name of conveying party(ies)	2. Name and address of receiving party(ies)	
Sung Real SON Jung Yul SON Ji Min KIM	Name: SK Innovation Co., Ltd.	
Min Ji SUNG	Internal Address:	
Sang Uk KIM		
Additional name(s) of conveying party(ies) attached?  Yes ✓ No.  3. Nature of conveyance/Execution Date(s):	<del>d</del>	
Execution Date(s) 06/12/18; 06/13/18; 06/18/18; 06/14/18	Street Address: 26, Jong-ro, Jongno-gu	
✓ Assignment Merger		
Security Agreement Change of Name	City: Seoul	
Joint Research Agreement	State:	
Government Interest Assignment	Otato.	
Executive Order 9424, Confirmatory License	Country: REPUBLIC OF KOREA Zip: 03188	
Other	Additional name(s) & address(es) attached? ✓ Yes ☐ No	
4. Application or patent number(s):	document serves as an Oath/Declaration (37 CFR 1.63).	
A. Patent Application No.(s)	B. Patent No.(s)	
16/021,588		
Additional numbers at	 tached?	
5. Name and address to whom correspondence	6. Total number of applications and patents	
concerning document should be mailed:	involved:	
Name: Richard L. Byrne	7. Total fee (37 CFR 1.21(h) & 3.41) \$0	
Internal Address: The Webb Law Firm	7. Total lee (67 of 11 1.21(11) & 6.41)	
	Authorized to be charged to deposit account	
Street Address: One Gateway Center	Enclosed	
420 Ft. Duquesne Blvd., Ste 1200	None required (government interest not affecting title)	
	8. Payment Information	
City: Pittsburgh  State: BA  Zin: 15222	·	
State: PA Zip: 15222		
Phone Number: 412-471-8815	Deposit Account Number	
Docket Number: 1455 - 1804720	Authorized User Name	
Email Address: assignments@webblaw.com		
9. Signature: /Richard L. Byrne	***************************************	
Signature	Date	
Richard L. Byrne  Name of Person Signing	Total number of pages including cover sheet, attachments, and documents:	
	t) should be faxed to (571) 273-0140, or mailed to:	
· · · · · · · · · · · · · · · · · · ·	f the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450	

PATENT
REEL: 046228 FRAME: 0473

# RECORDATION FORM COVER SHEET PATENTS ONLY

## Page 2

U.S. Patent Application No.	16/021,588 , filed June 28, 2018
U.S. Patent No.	, issued
Additional In	formation (continued from Page 1)
Name of conveying party(ies)	Name and address of receiving party(ies)
	Name: SK Global Chemical Co., Ltd.
	Internal Address:
	Street Address: 26, Jong-ro, Jongno-gu
	City: Seoul
Execution Date(s):	X X
	Country: REPUBLIC OF KOREA Zip: 03188
Name of conveying party(ies)	Name and address of receiving party(ies)
	Name:
	Internal Address:
	Street Address:
	City:
Execution Date(s):	8 B
	Zip:

PATENT REEL: 046228 FRAME: 0474

	Application No
	Attorney Docket No.
	<u>ASSIGNMENT</u>
	WHEREAS, as a below named inventor, I have invented certain new and useful
improv	ements in
	METHOD OF PRODUCING CARBON NANOTUBES IN FLUIDIZED BED REACTOR
	(Invention Title)
······································	or which I have this day executed an application for a United States Patent (hereinafter said application").
AND/C	DR .
	or which an application for a United States Patent was filed on(mm/dd/yyyy) nd bears Application Number (hereinafter "said application").

AND, WHEREAS, SK Innovation Co., Ltd., a corporation of Republic of Korea, having a place of business at 26, Jong-ro, Jongno-gu, Seoul 03188, Republic of Korea and SK Global Chemical Co., LTD., a corporation of Republic of Korea, having a place of business at 26, Jong-ro, Jongno-gu, Seoul 03188, Republic of Korea hereinafter called the "assignees", is desirous of acquiring the entire right, title, and interest in and to said application and the inventions and improvements therein disclosed.

for which an international patent application was filed under the Patent Cooperation Treaty

, bearing Application No. (hereinafter

AND/OR

"said application").

NOW, THEREFORE, for good and valuable consideration paid to me by said assignees, the receipt of which is hereby acknowledged, I as the inventor or as one of the inventors, hereinafter the assignor(s), do hereby assign, sell and transfer unto said assignees the full and exclusive right, title and interest in and to said application and the inventions and improvements therein disclosed for the United States and all foreign countries and any Letters Patent which may issue therefor in the United States and all foreign countries and all divisions, reissues, continuations, continuations-in-part, renewals and/or extensions thereof. Such assignment extends to the full ends of the terms of these applications and patents as fully and entirely as the same would have been held and enjoyed by me had this Assignment not been made.

I covenant that I am the lawful owner(s) of said application, inventions and improvements, that the same are unencumbered, that no license has been granted to make, use or vend the said inventions or improvements or any of them, and that I have the full right to make this Assignment.

And for the consideration aforesaid, I agree individually and, if applicable, jointly that I will communicate to said assignees or the representatives thereof any facts known to me respecting said inventions and improvements, and will, upon request but without expense to me, testify in any legal proceedings, sign all lawful papers, execute all divisional, reissue, continuation, continuation-in-part, renewal and/or extension applications, make all rightful oaths,

INTERNATIONAL

	INTERNATIONAL
Application No.	
Attorney Docket No.	

and generally do all other and further lawful acts deemed necessary or expedient by said assignees or by counsel for said assignees to assist or enable said assignees to obtain and enforce full benefits from the rights and interests herein assigned. This Assignment shall be binding upon my heirs, executors, administrators and/or assigns, and shall inure to the benefit of the heirs, executors, administrators, successors and/or assigns, as the case may be, of said assignees.

1. FULL NAME OF ASSIGNOR:	RESIDENCE:
SON, Sung Real	Daejeon, Republic of Korea
EXECUTED this 12 day of June	ANDL
WITNESS:	Signature
2. FULL NAME OF ASSIGNOR: KIM, Ji Min	RESIDENCE: Daejeon, Republic of Korea
EXECUTED this 13 day of June	, 2018 26 m
WITNESS:	Signature
3. FULL NAME OF ASSIGNOR: SUNG, Min Ji	RESIDENCE: Daejeon, Republic of Korea
EXECUTED this 18 day of June	, 2018 MJ
WITNESS:	Signature
V Charked Boy indicates 1 additional	

Page 2 of 3

	Application NoAttorney Docket No
	1 MOTHOY DOUBLE 1901
4. FULL NAME OF ASSIGNOR:	RESIDENCE:
KIM, Sang Uk	Daejeon, Republic of Korea
EXECUTED this / 8 day of June	
	SIGNATURE
WITNESS:	SIGNATORE
	<del></del>
5. FULL NAME OF ASSIGNOR: SON, Jung Yul	RESIDENCE: Daejeon, Republic of Korea
EXECUTED this /4 day of June	, 2018
	anon
namande.	Signature
WITNESS:	

INTERNATIONAL