PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3455630

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|----------------|----------------|
| JUNGHO KANG | 12/23/2014 |
| MYUNG JONG KIM | 12/23/2014 |
| DONG SU LEE | 12/23/2014 |

RECEIVING PARTY DATA

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| State/Country: | KOREA, REPUBLIC OF |
| Postal Code: | 136-791 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 14808683 |

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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GREER, BURNS & CRAIN, LTD **Correspondent Name:**

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| ATTORNEY DOCKET NUMBER: | 1674.118836 |
|-------------------------|--------------|
| NAME OF SUBMITTER: | B. JOE KIM |
| SIGNATURE: | /B. Joe Kim/ |
| DATE SIGNED: | 07/27/2015 |

Total Attachments: 3

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> **PATENT REEL: 036182 FRAME: 0580**

GREER, BURNS & CRAIN, LTD.
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SUITE 2500
CHICAGO, ILLINOIS 60606

Declaration and Assignment for Utility or Design Patent Application

The title of this invention is:

CARBON NANOFIBERS WITH SHARP TIP STRUCTURE AND CARBON NANOFIBERS GROWTH METHOD USING OF PALLADIUM CATALYST

| I. | Decl | Declaration As a below named inventor, I/we hereby declare that this declaration is directed to: | |
|----|--------|---|--|
| | As a | | |
| | () | the attached application, | |
| | | OR | |
| | (X) | United States application or PCT international application | |
| | numb | per <u>14/808,683</u> filed on <u>07/24/2015</u> | |
| | and v | vas amended on (MM/DD/YYYY) | |
| | (if an | plicable). | |

Compliance with the Leahy-Smith America Invents Act

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.

A. Compliance for U.S. applications and PCT applications designating the U.S. filed before September 16, 2012

I/we believe that I/we am/are the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought.

I/we have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above.

I/we acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me/us to be material to patentability as defined in 37 CFR § 1.56,

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including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

All statements made herein of my/our own knowledge are true, all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

II. **Assignment**

(X) Check this box to assign this invention.

FOR VALUE RECEIVED, the receipt of which is hereby acknowledged, the below named inventor or inventors (hereinafter called "ASSIGNOR") hereby assigns, transfers, and sets over to:

KOREA INSTITUTE OF SCIENCE AND TECHNOLOGY 5, Hwarang-ro 14-gil, Seongbuk-gu, Seoul 136-791, Republic of Korea

(hereinafter called "ASSIGNEE"), the full and exclusive right, title, and interest in and to the above-named invention and all rights privileges under any Letters Patent that may be granted thereon, including all rights, if any, to sue for past infringement.

ASSIGNOR also assigns all rights, titles, and interests in and to said invention in all foreign countries, and all applications for Patent which may evolve therefrom, including the right to claim International Convention priority.

The ASSIGNOR agrees without charge to said ASSIGNEE but at its expense (a) to execute (i) all necessary papers to be used in connection with the above-identified application and any additional, continuing, or divisional applications, as the ASSIGNEE may deem necessary or expedient, (ii) all papers in connection with any interference or other legal or quasi-legal proceedings relating to the above-identified application or any additional, continuing, or divisional application thereof; (b) to cooperate with ASSIGNEE in every way possible in obtaining evidence and going forward in any such proceedings; and (c) to perform all other affirmative acts which may be necessary or desirable to obtain a grant of a valid patent.

ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks of the United States to issue any and all Letters Patent that may be granted upon the aboveidentified application or any additional, continuing or divisional applications thereof to the ASSIGNEE, its successors and assigns.

ASSIGNOR hereby covenants and warrants that he or she has full right to convey the entire right, title and interest by this instrument, free of any encumbrances and that no other agreement has been or will be executed in conflict herewith.

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III. Inventor Signatures

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| Date: | Dec. 23. 2014 |

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