502124961 11/12/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

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

CONVEYING PARTY DATA

| Name | Execution Date |
|-------------|----------------|
| JUDY WU | 11/07/2012 |
| GUOWEI XU | 11/12/2012 |
| JIANWEI LIU | 11/07/2012 |

RECEIVING PARTY DATA

| Name: | UNIVERSITY OF KANSAS |
|-----------------|----------------------|
| Street Address: | * |
| City: | LAWRENCE |
| State/Country: | KANSAS |
| Postal Code: | 66045 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 13657161 |

CORRESPONDENCE DATA

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Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

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ATTORNEY DOCKET NUMBER: 0506274-0106

NAME OF SUBMITTER: Lora Gurley

Total Attachments: 5

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> PATENT REEL: 029278 FRAME: 0585

CH \$40.00 1365

First Named Inventor: Wu, et al.

Attorney Docket No.: 0506274-0106

ASSIGNMENT AGREEMENT

In consideration of good and valuable consideration, the receipt and sufficiency of which

is hereby acknowledged, Judy Wu, an individual having an address of 4517 Winged Foot Ct,

Lawrence, Kansas 66049; Guowei Xu, an individual having an address of 1742 Anna Dr #5,

Lawrence, Kansas 66044; and Jianwei Liu, an individual having an address of 2142 Prairie Glen

Pl, Manhattan, Kansas 66502 (hereinafter "Assignors") hereby assign, transfer, and convey to the

University of Kansas, a university created and existing under and by virtue of the laws of the

State of Kansas, and having a principal place of business in Lawrence, Kansas 66045, its

successors, legal representatives, and assigns (hereinafter "Assignee"), the Assignors' entire

right, title and interest in and to the invention for PLASMONIC GRAPHENE AND METHOD

OF MAKING THE SAME; in and to the application filed on the 22nd day of October, 2012, and

assigned Application No. 13/657,161 and based thereon; in and to all patents to be issued

pursuant to said application and any divisionals, continuations, continuations in part, extensions,

renewals, and reissues thereof; and in and to all applications for patents or similar legal

protection that may hereafter be filed for said invention in any country, all patents or similar

legal protection that may be granted for said invention in any country and all extensions,

renewals and reissues thereof or legal equivalent thereof.

Assignors hereby authorize and request the Director of Patents and Trademarks of the

United States, and any official of any other country whose duty it is to issue patents or similar

legal protection on said applications, to issue patents or similar legal protection for said invention

to Assignee, the same to be held by Assignee for its own use and benefit, to the full end of the

DB04/0506274.0106/7113332.1 IS03

PATENT REEL: 029278 FRAME: 0586

First Named Inventor: Wu, et al.

Attorney Docket No.: 0506274-0106

term for which said patents or similar legal protection are or may be granted, as fully and entirely

as the same would have been held and enjoyed by Assignors had this assignment not been made.

Assignors hereby further agree, upon the request of Assignee, to execute any and all

applications for divisionals, continuations, and/or continuations in part for said invention or

improvements and any supplemental oath or declaration relating thereto, and any applications for

the reissue or extension of any patent that may be granted upon said applications that Assignee

may deem necessary or expedient. Assignors further agree that in the event any said application,

or patent issued thereon, becomes involved in an interference, upon request of Assignee,

Assignors will cooperate to the best of their ability with Assignee in preparing the preliminary

statement and giving and producing evidence in support thereof. Assignors hereby agree to

perform, upon such request, any and all affirmative acts to obtain said patents or similar legal

protection, and vest all rights therein in Assignee as fully and entirely as the same would have

been held and enjoyed by Assignors if this assignment had not been made.

Assignors hereby covenant and warrant that as of the date hereof they are the true and

lawful owners of the entire, right, title, and interest in said invention, applications, and patents

which may issue pursuant thereto, that they have the full right and power to convey the same,

that the same are free and clear of all liens, charges and encumbrances whatsoever, and that they

have not executed and will not execute any agreement in conflict herewith.

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DB04/0506274.0106/7113332.1 IS03

REEL: 029278 FRAME: 0587

First Named Inventor: Wu, et al. Attorney Docket No.: 0506274-0106

| WITNESS my hand and seal this | **** |
|--|------|
| ACKNOWLEDGMENT | |
| STATE OF Kansas) ss COUNTY OF Douglas) | |
| On this | e |
| SEAL) Notary Public Notary Public | |
| My Commission Expires: | |
| August 26, 2013 | |

First Named Inventor: Wu, et al. Attorney Docket No.: 0506274-0106

WITNESS my hand and seal this 12th day of North **ACKNOWLEDGMENT** COUNTY OF Dackson) SS On this 12th day of November, 2012, before me, a Notary Public in and for the State and County aforesaid, personally appeared Guowei Xu, to me known and known to me to be the person of that name who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed. Notary Public LORI E. CHINNERY
Notary Public, Notary Seal
State of Missourl
Benton County
Commission # 11129823
My Commission Expires January 02, 2015 (SEAL) My Commission Expires: January 2, 2015

First Named Inventor: Wu, et al. Attorney Docket No.: 0506274-0106

| WITNESS my hand and seal this |
|-------------------------------|
| Jianwei Liu |
| ACKNOWLEDGMENT |
| state of Kansas) ss) ss |
| On this |
| SEAL) Notary Public |
| My Commission Expires: |
| August 26,2013 |

RECORDED: 11/12/2012