

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT4498681

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
SEBASTIAN SORGENFREI	01/28/2017
KENNETH SHEPARD	10/30/2015
CHIEN-YANG CHIU	08/08/2013
COLIN NUCKOLLS	12/09/2016
STEVEN WARREN	11/05/2015
RECEIVING PARTY DATA	
Name:	THE TRUSTEES OF COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK
Street Address:	535 WEST 116TH ST.
Internal Address:	412 LOW MEMORIAL LIBRARY
City:	NEW YORK
State/Country:	NEW YORK
Postal Code:	10027
PROPERTY NUMBERS Total: 4	
Property Type	Number
Application Number:	13801834
PCT Number:	US1220955
Application Number:	61453344
Application Number:	61431795
CORRESPONDENCE DATA	
Fax Number:	(212)408-2501
<i>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.</i>	
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Correspondent Name:	PAUL A. RAGUSA/BAKER BOTTS, LLP
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ATTORNEY DOCKET NUMBER:	070050.4836
NAME OF SUBMITTER:	PAUL A. RAGUSA

SIGNATURE:	/PAUL A. RAGUSA/
DATE SIGNED:	07/11/2017
Total Attachments: 6 source=4836assign#page1.tif source=4836assign#page2.tif source=4836assign#page3.tif source=4836assign#page4.tif source=4836assign#page5.tif source=4836assign#page6.tif	

WORLDWIDE ASSIGNMENT

WHEREAS, **Sebastian Sorgenfrei**, a citizen of Germany, having a residence address at 430 SW. 13th Avenue, Apt. 1202, Portland, Oregon 97205; **Kenneth Shepard**, a citizen of the United States, having a residence address at 158 Evan Drive, Ossining, New York 10563; **Chien-Yang Chiu**, a citizen of Taiwan, having a residence address at 247 Mathilda Drive, Apt. 2, Goleta, California 93117; **Colin Nuckolls**, a citizen of the United States, having a residence address at 560 Riverside Drive, Apt. 12-L, New York, New York 10027; **Steven Warren**, a citizen of the United States, having a residence address 15 Audrey Lane, White Plains, New York 10605; (hereinafter "**ASSIGNORS**"), have made an invention entitled "**Systems And Methods For Single-Molecule Detection Using Nanotubes**" as set forth and described in United States Patent Application Serial No. 13/801,834 filed **March 13, 2013**; International Application Serial No. PCT/US2012/020955 filed **January 11, 2012**; United States Provisional Application Serial No. 61/453,344 filed **March 16, 2011**; and United States Provisional Application Serial No. 61/431,795 filed **January 11, 2011**;

WHEREAS, **THE TRUSTEES OF COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK** (hereinafter "**ASSIGNEE**"), having its principal place of business at **412 Low Memorial Library, 535 West 116th Street, New York, NY, 10027**, is desirous of acquiring our rights, title and interest in and to said application for Letters Patent, and any continuations, divisions, extensions, substitutions, reissues and reexaminations thereof;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, BE IT KNOWN, that WE, the said **ASSIGNORS**, for and in consideration of valuable considerations unto us moving from said **ASSIGNEE**, at or before the ensembling and delivery of these presents, the receipt and sufficiency of which is hereby acknowledged, have sold, assigned, transferred and conveyed and by these presents do sell, assign, transfer and convey, unto said **ASSIGNEE**, its successors and assigns, our rights, title and interest in and to the said invention entitled "**Systems And Methods For Single-Molecule Detection Using Nanotubes**" and any and all improvements thereto, and in and to said application and any division, continuation or continuation-in-part thereof, and in and to any Letters Patent of the United States which may be issued on any of said applications, and any reissues thereof, and in and to any and all applications for Letters Patent filed in foreign countries for said invention or improvements including all priority rights, and any and all Letters Patent which may be granted in foreign countries therefor, and in and to any other applications based in whole or in part on any of the foregoing, TO HAVE AND TO HOLD THE SAME to the full end of the term or terms for which any and all said Letters Patent may be granted;

AND WE, the said **ASSIGNORS**, do hereby authorize and request the Commissioner of Patents and Trademarks to issue the said Letters Patent of the United States to said **ASSIGNEE**, as the assignee of the entire right, title and interest in and to the same, for the sole use and benefit of said **ASSIGNEE**, its successors and assigns;

AND WE, the said **ASSIGNORS**, for the considerations aforesaid, do hereby covenant and agree to and with said **ASSIGNEE**, its successors and assigns, that we have power to make this assignment, and that the rights assigned are not encumbered by any grant, license or right

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heretofore given, and that we, our executors or administrators, shall and will do all lawful acts and things and make, execute and deliver without further compensation, any and all other instruments in writing, further applications, papers, affidavits, powers of attorney, assignments, and other documents which, in the opinion of counsel for said ASSIGNEE, its successors and assigns, may be required or necessary more effectively to secure to and vest in said ASSIGNEE, its successors and assigns, the entire right, title and interest in and to said invention and improvements, applications, Letters Patent, rights, titles, benefits, privileges, and advantages hereby sold, assigned, transferred and conveyed, and that we will sign any applications for reissue which may be desired by the owner of the patent or patents which may be issued for the said invention or improvements.

IN WITNESS WHEREOF, I, the said ASSIGNOR have executed this Assignment this

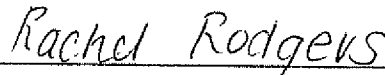
28th day of January, ~~2017~~ 2017



SEBASTIAN SORGENFREI



Witness Signature

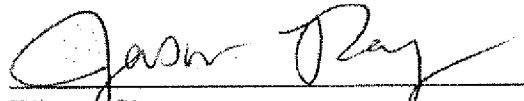


Witness Name

IN WITNESS WHEREOF, I, the said **ASSIGNOR** have executed this Assignment this
30th day of October, 2015.



KENNETH SHEPARD


Witness Signature

Witness Name

IN WITNESS WHEREOF, WE, the said ASSIGNORS have hereunto set our hand and seal on the dates below written.

Date: August 08 2013

Chien-Yang Chiu

Chien-Yang Chiu

STATE OF)

SS:

COUNTY OF)


BE IT KNOWN, that on this _____ day of _____, 2013, before me personally came, **Chien-Yang Chiu** to me known and known to me to be the person mentioned in and who executed the foregoing assignment, and he acknowledged to me that he executed the same as his free act and deed for the use and purposes therein mentioned.

SUBSCRIBED AND SWORN before me, the undersigned authority, by on this ____ day of _____, 2013.

Notary Public

IN WITNESS WHEREOF, I, the said **ASSIGNOR** have executed this Assignment this

9 day of December, 2016.



COLIN NUCKOLLS



Witness Signature

RYAN HASTIE

Witness Name

IN WITNESS WHEREOF, I, the said **ASSIGNOR** have executed this Assignment this

5th day of November, 2015.



STEVEN WARREN



Witness Signature

Adrian Bradd.

Witness Name