

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Name</th> <th style="width: 30%;">Execution Date</th> </tr> </thead> <tbody> <tr> <td>Nosang Vincent MYUNG</td> <td>12/11/2011</td> </tr> <tr> <td>Syed MUBEEN</td> <td>12/12/2011</td> </tr> <tr> <td>Ashok MULCHANDANI</td> <td>12/12/2011</td> </tr> <tr> <td>Marc Arnold DESHUSSES</td> <td>12/12/2011</td> </tr> </tbody> </table>		Name	Execution Date	Nosang Vincent MYUNG	12/11/2011	Syed MUBEEN	12/12/2011	Ashok MULCHANDANI	12/12/2011	Marc Arnold DESHUSSES	12/12/2011		
Name	Execution Date												
Nosang Vincent MYUNG	12/11/2011												
Syed MUBEEN	12/12/2011												
Ashok MULCHANDANI	12/12/2011												
Marc Arnold DESHUSSES	12/12/2011												
RECEIVING PARTY DATA													
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Name:</td> <td>The Regents of The University of California</td> </tr> <tr> <td>Street Address:</td> <td>1111 Franklin Street</td> </tr> <tr> <td>Internal Address:</td> <td>5th Floor</td> </tr> <tr> <td>City:</td> <td>Oakland</td> </tr> <tr> <td>State/Country:</td> <td>CALIFORNIA</td> </tr> <tr> <td>Postal Code:</td> <td>94607-5200</td> </tr> </table>		Name:	The Regents of The University of California	Street Address:	1111 Franklin Street	Internal Address:	5th Floor	City:	Oakland	State/Country:	CALIFORNIA	Postal Code:	94607-5200
Name:	The Regents of The University of California												
Street Address:	1111 Franklin Street												
Internal Address:	5th Floor												
City:	Oakland												
State/Country:	CALIFORNIA												
Postal Code:	94607-5200												
PROPERTY NUMBERS Total: 1													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Property Type</th> <th style="width: 70%;">Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13111452</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13111452								
Property Type	Number												
Application Number:	13111452												
CORRESPONDENCE DATA													
<p>Fax Number: (703)836-7419</p> <p>Phone: 7038366620</p> <p>Email: robin.copeland@bipc.com, adipdoc1@bipc.com</p> <p><i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i></p> <p>Correspondent Name: Buchanan Ingersoll & Rooney PC</p> <p>Address Line 1: P.O. Box 1404</p> <p>Address Line 4: Alexandria, VIRGINIA 22313-1404</p>													
ATTORNEY DOCKET NUMBER:	0071220-000076												
NAME OF SUBMITTER:	Kirk M. Nuzum												

OP \$40.00 13111452

501757119

PATENT
REEL: 027389 FRAME: 0840

Total Attachments: 8

source=Assignment076#page1.tif

source=Assignment076#page2.tif

source=Assignment076#page3.tif

source=Assignment076#page4.tif

source=Assignment076#page5.tif

source=Assignment076#page6.tif

source=Assignment076#page7.tif

source=Assignment076#page8.tif

ASSIGNMENT

(JOINT)

THIS ASSIGNMENT, by (1) Nosang Vincent MYUNG, (2) Syed MUBEEN, (3) Ashok MULCHANDANI, and (4) Marc Arnold DESHUSSES, residing at (1) Riverside, California, USA; (2) Santa Barbara, California, USA; (3) Riverside, California, USA; and (4) Chapel Hill, North Carolina, USA (hereinafter referred to as "the Assignors"), respectively, witnesseth:

WHEREAS, the Assignors have invented certain new and useful improvements in METAL AND METAL OXIDE CO-FUNCTIONALIZED SINGLE-WALLED CARBON NANOTUBES FOR HIGH PERFORMANCE GAS SENSORS set forth in an application for Letters Patent of the United States, which is a

- (1) ☐ provisional application
 - (a) ☐ bearing Application No. _____, and filed on _____;
 - (b) ☐ to be filed herewith; or
- (2) ☒ non-provisional application
 - (a) ☒ bearing Application No. 13/111,452, and filed on May 19, 2011;
 - (b) ☐ having an oath or declaration executed on even date herewith prior to filing of application;
 - (c) ☐ having an oath or declaration executed on a different date than this Assignment; and

WHEREAS, THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, a corporation duly organized under and pursuant to the laws of USA and having a principal place of business at 1111 Franklin Street, 5th Floor, Oakland, California 94607-5200, USA (hereinafter referred to as "the Assignee"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said application, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignors have sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the above-mentioned inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications for Letters Patent of the United States or other countries claiming priority to said applications, and any and all Letters Patent or Patents of the United States of America and all foreign countries that may be granted therefor and thereon, and in and to any and all applications claiming priority to said applications, divisions, continuations, and continuations-in-part of said applications, and reissues and extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and behoof and the use and behoof of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignors had this sale and assignment not been made;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignors are the sole and lawful owners of the entire right, title, and interest in and to the inventions set forth in said applications and said applications, including provisional applications, above-mentioned, and that the same are unencumbered, and that the Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

Buchanan Ingersoll & Rooney PC
Attorneys & Government Relations Professionals

(7/06)

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns that the Assignors will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said applications for Letters Patent or Patents, or any proceeding in connection with Letters Patent or Patents for said inventions in any country, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, or continuation-in-part of any applications for Letters Patent or Patents, or any reissue or extension of any Letters Patent or Patents to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Letters Patent or Patents for said inventions, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns;

AND the Assignors hereby authorize and request the attorneys of Buchanan Ingersoll & Rooney PC to insert in the spaces provided above the title of the invention, filing date, application number, and attorney's docket number of said application when known.

AND the Assignors hereby request the Commissioner of Patents to issue any and all said Letters Patent of the United States to the Assignee as the Assignee of said invention, the Letters Patent to be issued for the sole use and behoof of the Assignee, its successors, legal representatives, and assigns.

DATE 12/11/2011


NOSANG VINCENT MYUNG

DATE _____

SYED MUBEEN

DATE _____

ASHOK MULCHANDANI

DATE _____

MARC ARNOLD DESHUSSES

ASSIGNMENT (JOINT)

THIS ASSIGNMENT, by (1) Nosang Vincent MYUNG, (2) Syed MUBEEN, (3) Ashok MULCHANDANI, and (4) Marc Arnold DESHUSSES, residing at (1) Riverside, California, USA; (2) Santa Barbara, California, USA; (3) Riverside, California, USA; and (4) Chapel Hill, North Carolina, USA (hereinafter referred to as "the Assignors"), respectively, witnesseth:

WHEREAS, the Assignors have invented certain new and useful improvements in METAL AND METAL OXIDE CO-FUNCTIONALIZED SINGLE-WALLED CARBON NANOTUBES FOR HIGH PERFORMANCE GAS SENSORS set forth in an application for Letters Patent of the United States, which is a

- (1) ☐ provisional application
 - (a) ☐ bearing Application No. _____, and filed on _____;
 - (b) ☐ to be filed herewith; or
- (2) ☒ non-provisional application
 - (a) ☒ bearing Application No. 13/111,452, and filed on May 19, 2011;
 - (b) ☐ having an oath or declaration executed on even date herewith prior to filing of application;
 - (c) ☐ having an oath or declaration executed on a different date than this Assignment; and

WHEREAS, THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, a corporation duly organized under and pursuant to the laws of USA and having a principal place of business at 1111 Franklin Street, 5th Floor, Oakland, California 94607-5200, USA (hereinafter referred to as "the Assignee"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said application, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignors have sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the above-mentioned inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications for Letters Patent of the United States or other countries claiming priority to said applications, and any and all Letters Patent or Patents of the United States of America and all foreign countries that may be granted therefor and thereon, and in and to any and all applications claiming priority to said applications, divisions, continuations, and continuations-in-part of said applications, and reissues and extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and behoof and the use and behoof of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignors had this sale and assignment not been made;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignors are the sole and lawful owners of the entire right, title, and interest in and to the inventions set forth in said applications and said applications, including provisional applications, above-mentioned, and that the same are unencumbered, and that the Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns that the Assignors will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said applications for Letters Patent or Patents, or any proceeding in connection with Letters Patent or Patents for said inventions in any country, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, or continuation-in-part of any applications for Letters Patent or Patents, or any reissue or extension of any Letters Patent or Patents to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Letters Patent or Patents for said inventions, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns;

AND the Assignors hereby authorize and request the attorneys of Buchanan Ingersoll & Rooney PC to insert in the spaces provided above the title of the invention, filing date, application number, and attorney's docket number of said application when known.

AND the Assignors hereby request the Commissioner of Patents to issue any and all said Letters Patent of the United States to the Assignee as the Assignee of said invention, the Letters Patent to be issued for the sole use and behoof of the Assignee, its successors, legal representatives, and assigns.

DATE _____

NOSANG VINCENT MYUNG

DATE DEC 12, 2011 _____

J. H. Syed Mubeen
SYED MUBEEN

DATE _____

ASHOK MULCHANDANI

DATE _____

MARC ARNOLD DESHUSSES

ASSIGNMENT (JOINT)

THIS ASSIGNMENT, by (1) Nosang Vincent MYUNG, (2) Syed MUBEEN, (3) Ashok MULCHANDANI, and (4) Marc Arnold DESHUSSES, residing at (1) Riverside, California, USA; (2) Santa Barbara, California, USA; (3) Riverside, California, USA; and (4) Chapel Hill, North Carolina, USA (hereinafter referred to as "the Assignors"), respectively, witnesseth:

WHEREAS, the Assignors have invented certain new and useful improvements in METAL AND METAL OXIDE CO-FUNCTIONALIZED SINGLE-WALLED CARBON NANOTUBES FOR HIGH PERFORMANCE GAS SENSORS set forth in an application for Letters Patent of the United States, which is a

- (1) ☐ provisional application
 - (a) ☐ bearing Application No. _____, and filed on _____;
 - (b) ☐ to be filed herewith; or
- (2) ☒ non-provisional application
 - (a) ☒ bearing Application No. 13/111,452, and filed on May 19, 2011;
 - (b) ☐ having an oath or declaration executed on even date herewith prior to filing of application;
 - (c) ☐ having an oath or declaration executed on a different date than this Assignment; and

WHEREAS, THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, a corporation duly organized under and pursuant to the laws of USA and having a principal place of business at 1111 Franklin Street, 5th Floor, Oakland, California 94607-5200, USA (hereinafter referred to as "the Assignee"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said application, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignors have sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the above-mentioned inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications for Letters Patent of the United States or other countries claiming priority to said applications, and any and all Letters Patent or Patents of the United States of America and all foreign countries that may be granted therefor and thereon, and in and to any and all applications claiming priority to said applications, divisions, continuations, and continuations-in-part of said applications, and reissues and extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and behoof and the use and behoof of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignors had this sale and assignment not been made;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignors are the sole and lawful owners of the entire right, title, and interest in and to the inventions set forth in said applications and said applications, including provisional applications, above-mentioned, and that the same are unencumbered, and that the Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns that the Assignors will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said applications for Letters Patent or Patents, or any proceeding in connection with Letters Patent or Patents for said inventions in any country, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, or continuation-in-part of any applications for Letters Patent or Patents, or any reissue or extension of any Letters Patent or Patents to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Letters Patent or Patents for said inventions, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns;

AND the Assignors hereby authorize and request the attorneys of Buchanan Ingersoll & Rooney PC to insert in the spaces provided above the title of the invention, filing date, application number, and attorney's docket number of said application when known.

AND the Assignors hereby request the Commissioner of Patents to issue any and all said Letters Patent of the United States to the Assignee as the Assignee of said invention, the Letters Patent to be issued for the sole use and behoof of the Assignee, its successors, legal representatives, and assigns.

DATE _____

NOSANG VINCENT MYUNG

DATE _____

SYED MUBEEN

DATE 12/12/11



ASHOK MULCHANDANI

DATE _____

MARC ARNOLD DESHUSSES

ASSIGNMENT

(JOINT)

THIS ASSIGNMENT, by (1) Nosang Vincent MYUNG, (2) Syed MUBEEN, (3) Ashok MULCHANDANI, and (4) Marc Arnold DESHUSSES, residing at (1) Riverside, California, USA; (2) Santa Barbara, California, USA; (3) Riverside, California, USA; and (4) Chapel Hill, North Carolina, USA (hereinafter referred to as "the Assignors"), respectively, witnesseth:

WHEREAS, the Assignors have invented certain new and useful Improvements in METAL AND METAL OXIDE CO-FUNCTIONALIZED SINGLE-WALLED CARBON NANOTUBES FOR HIGH PERFORMANCE GAS SENSORS set forth in an application for Letters Patent of the United States, which is a

- (1) ☐ provisional application
 - (a) ☐ bearing Application No. _____, and filed on _____;
 - (b) ☐ to be filed herewith; or
- (2) ☒ non-provisional application
 - (a) ☒ bearing Application No. 13/111,452, and filed on May 19, 2011;
 - (b) ☐ having an oath or declaration executed on even date herewith prior to filing of application;
 - (c) ☐ having an oath or declaration executed on a different date than this Assignment; and

WHEREAS, THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, a corporation duly organized under and pursuant to the laws of USA and having a principal place of business at 1111 Franklin Street, 5th Floor, Oakland, California 94607-5200, USA (hereinafter referred to as "the Assignee"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said application, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignors have sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the above-mentioned inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications for Letters Patent of the United States or other countries claiming priority to said applications, and any and all Letters Patent or Patents of the United States of America and all foreign countries that may be granted therefor and thereon, and in and to any and all applications claiming priority to said applications, divisions, continuations, and continuations-in-part of said applications, and reissues and extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and behoof and the use and behoof of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignors had this sale and assignment not been made;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignors are the sole and lawful owners of the entire right, title, and interest in and to the inventions set forth in said applications and said applications, including provisional applications, above-mentioned, and that the same are unencumbered, and that the Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns that the Assignors will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said applications for Letters Patent or Patents, or any proceeding in connection with Letters Patent or Patents for said inventions in any country, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, or continuation-in-part of any applications for Letters Patent or Patents, or any reissue or extension of any Letters Patent or Patents to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Letters Patent or Patents for said inventions, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns;

AND the Assignors hereby authorize and request the attorneys of Buchanan Ingersoll & Rooney PC to insert in the spaces provided above the title of the invention, filing date, application number, and attorney's docket number of said application when known.

AND the Assignors hereby request the Commissioner of Patents to issue any and all said Letters Patent of the United States to the Assignee as the Assignee of said invention, the Letters Patent to be issued for the sole use and behoof of the Assignee, its successors, legal representatives, and assigns.

DATE _____

NOSANG VINCENT MYUNG

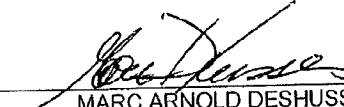
DATE _____

SYED MUBEEN

DATE _____

ASHOK MULCHANDANI

DATE 12/12/2011



MARC ARNOLD DESHUSSES