503085375 12/04/2014

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3131980

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JUNJING BAO	10/29/2014
GRISELDA BONILLA	11/19/2014
SAMUEL S. CHOI	10/28/2014
RONALD G. FILIPPI	10/30/2014
NAFTALI E. LUSTIG	10/30/2014
ANDREW H. SIMON	11/05/2014

RECEIVING PARTY DATA

Name:	INTERNATIONAL BUSINESS MACHINES CORPORATION
Street Address:	NEW ORCHARD ROAD
City:	ARMONK
State/Country:	NEW YORK
Postal Code:	10504

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14559962

CORRESPONDENCE DATA

Fax Number: (845)892-6363

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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ATTORNEY DOCKET NUMBER:	FIS920120244US2
NAME OF SUBMITTER:	L. JEFFREY KELLY
SIGNATURE:	/L. Jeffrey Kelly/
DATE SIGNED:	12/04/2014
	This document serves as an Oath/Declaration (37 CFR 1.63).

PATENT REEL: 034525 FRAME: 0919

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Total Attachments: 15 source=FIS920120244US2_FiledAssignDec_11_20_14#page1.tif source=FIS920120244US2 FiledAssignDec 11 20 14#page2.tif source=FIS920120244US2 FiledAssignDec 11 20 14#page3.tif source=FIS920120244US2_FiledAssignDec_11_20_14#page4.tif source=FIS920120244US2_FiledAssignDec_11_20_14#page5.tif source=FIS920120244US2 FiledAssignDec 11 20 14#page6.tif source=FIS920120244US2 FiledAssignDec 11 20 14#page7.tif source=FIS920120244US2_FiledAssignDec_11_20_14#page8.tif source=FIS920120244US2 FiledAssignDec 11 20 14#page9.tif source=FIS920120244US2_FiledAssignDec_11_20_14#page10.tif source=FIS920120244US2_FiledAssignDec_11_20_14#page11.tif source=FIS920120244US2_FiledAssignDec_11_20_14#page12.tif source=FIS920120244US2 FiledAssignDec 11 20 14#page13.tif source=FIS920120244US2_FiledAssignDec_11_20_14#page14.tif source=FIS920120244US2_FiledAssignDec_11_20_14#page15.tif

PATENT REEL: 034525 FRAME: 0920

DECLARATION (37 C.F.R. 1.63) FOR UTILITY PATENT APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76) AND ASSIGNMENT

Title of Invention: GRAPHENE AND METAL INTERCONNECTS WITH REDUCED CONTACT RESISTANCE

As a below named and undersigned inventor, I hereby declare that:
This declaration is directed to the attached application, or (if following box is checked):
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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 have reviewed and understand the contents of the application, including the claims.
I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR Section 1.56.
Whereas, I ("ASSIGNOR") have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") disclosed in the above-identified patent application and further identified by the

Whereas, International Business Machines Corporation (herein referred to as the "ASSIGNEE"), a corporation of New York having a place of business at Armonk, New York, desires to acquire, and I desire to grant to the ASSIGNEE, my entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto;

IBM Docket Number provided above in the header of this document;

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged. I hereby sell or have sold, assign or have assigned, and otherwise transfer or have transferred to the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefore in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all oghts of priority resulting from the filing of such applications and granting of such patents. In addition, I hereby authorize and request the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign putent, granted for the Invention, to the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the same to be held and enjoyed by the ASSIGNEE, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by me had this Assignment not been made; and I agree to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related parents and applications, in the ASSIGNEE, its successors, legal representatives, and assigns,

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I acknowledge my prior and ongoing obligations to sell, assign, and transfer my rights under this Assignment to the ASSIGNEE and am unaware of any reason why I may not have the full and unencumbered right to sell, assign, and transfer my rights hereby sold, assigned, and transferred, and have not executed, and will not execute, any document or instrument in conflict herewith. I also hereby grant the ASSIGNEE, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of New York, and any disputes will be resolved in a New York state court or federal court sited in New York.

Thereby 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.

-(1)	Signature: 121/22	Date: 10/29/20
(2)	Legal Name of Inventor: Grisekia Bonilla	
	Signature:	Date:
(3)	Legal Name of Inventor: Samuel S. Choi	
	Signature:	Date:
(4)	Legal Name of Inventor: Ronald G. Filippi	
	Sienstire:	Dare

(3)	Legal Name of Inventor: Naftall E. Lustig	
	Signature:	Date:
(6)	Legal Name of Inventor: Andrew H. Simon	
	Signature	Date:

Page 3 of 3

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(1)	Legal Name of Inventor: Junjing Bao		
	Signature:	Date:	
(2)	Legal Name of Inventor: Griselda Bonilla		
	Signature:	Date: u 15/2014	
(3)	Legal Name of Inventor: Samuel S. Choi		
	Signature:	Date:	
(4)	Legal Name of Inventor: Honald G. Filippi		
	Signature	Date:	

(5)	Legal Name of Inventor: Naftali E. Lustig	
	Signature:	Date:
(6)	Legal Name of Inventor: Andrew H. Simon	
	Signature:	Date:

2014-10-29 14:26 usefkll2 845 894 6204 >> 8458926363 P 1/2

IBM DOCKET NUMBER: FIS920120244US2

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(1) Legal Name of Inventor: Junjing Bao	
Signature:	Date:
(2) Legal Name of Inventor: Griselda Bonilla	
Signature	Dister
(3) Legal Name of Inventor: Samuel S. Choi Signature:	Dine: 10/28/14
(4) Legal Name of Inventor: Ronald G. Filippi	
Signature:	Date;

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Signature:	Date:			
4) Legal Name of Inventor: Ronald G. Filippi				
Signature: Roll Dollars	Date: 10/30/147			

(5) Legal Name	of Inventor: Naftali E.	Lustig		
Signature:	<u> </u>	C. May 1	Date:	10/38/19
			A STATE OF THE STA	
(6) Legal Name	of Inventor; Andrew H	. Simon		
Sionature			Date	

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	Signature:	Date:		
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Signat	iirés			Date:	,
	Name of Inventor: A			n d	
Signati	ro: Adres	M. Au	Mison	Date: Nov.	5,2014

Page 3 of 3

PATENT REEL: 034525 FRAME: 0935