

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT														
NATURE OF CONVEYANCE:	ASSIGNMENT														
CONVEYING PARTY DATA															
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Joshua COLLINS</td> <td>11/28/2012</td> </tr> <tr> <td>Murali K. NARASIMHAN</td> <td>12/06/2012</td> </tr> <tr> <td>Jingjing LIU</td> <td>11/27/2012</td> </tr> <tr> <td>Sang-Hyeob LEE</td> <td>11/27/2012</td> </tr> <tr> <td>Kai WU</td> <td>11/27/2012</td> </tr> <tr> <td>Avgerinos V. GELATOS</td> <td>12/05/2012</td> </tr> </tbody> </table>		Name	Execution Date	Joshua COLLINS	11/28/2012	Murali K. NARASIMHAN	12/06/2012	Jingjing LIU	11/27/2012	Sang-Hyeob LEE	11/27/2012	Kai WU	11/27/2012	Avgerinos V. GELATOS	12/05/2012
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RECEIVING PARTY DATA															
Name:	APPLIED MATERIALS, INC.														
Street Address:	3050 Bowers Avenue														
City:	Santa Clara														
State/Country:	CALIFORNIA														
Postal Code:	95054														
PROPERTY NUMBERS Total: 1															
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13660463</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13660463										
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CORRESPONDENCE DATA															
Fax Number:	7136234846														
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>															
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ATTORNEY DOCKET NUMBER:	APPM/016859US														

OP \$40.00 13660463

NAME OF SUBMITTER:

Keith M. Tackett

Total Attachments: 2

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ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses of Inventors:

1)	Joshua COLLINS 1172 Maraschino Drive Sunnyvale, California 94087	2)	Murali K. NARASIMHAN 1268 Chateau Drive San Jose, California 95120
3)	Jingjing LIU 444 Saratoga Avenue, Apt. 30C Santa Clara, California 95050	4)	Sang-Hyeob LEE 41510 Apricot Lane Fremont, California 94539
5)	Kai WU 696 Towle Way, Apt. 11 Palo Alto, California 94306	6)	Avgerinos V. GELATOS 2651 Eaton Avenue Redwood City, California 94062

(hereinafter referred to as Assignors), have invented a certain invention entitled:

HIGH TEMPERATURE TUNGSTEN METALLIZATION PROCESS

for which application for Letters Patent in the United States was filed on October 25, 2012, under Serial No. 13/660,463, executed on even date herewith; and

WHEREAS, Applied Materials, Inc., a corporation of the State of Delaware, having a place of business at 3050 Bowers Avenue, Santa Clara, California 95054 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as Invention), and in and to all embodiments of the Invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been received in full from said Assignee:

1. Said Assignors hereby sell, assign, transfer and convey to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a conventional, division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

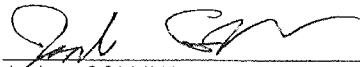
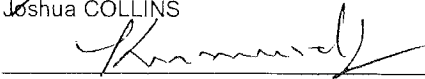
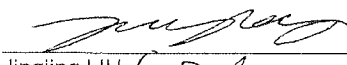
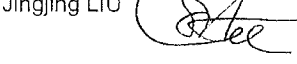
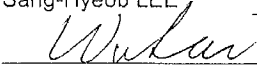
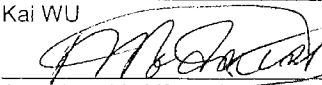
2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute,

conventional, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefore and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.

3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.

4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1)	<u>12/28/12</u> (DATE)	 Joshua COLLINS
2)	<u>12/6/12</u> (DATE)	 Murali K. NARASIMHAN
3)	<u>11/27/2012</u> (DATE)	 Jingjing LIU
4)	<u>11/27/2012</u> (DATE)	 Sang-Hyeob LEE
5)	<u>11/27/2012</u> (DATE)	 Kai WU
6)	<u>12/01/12</u> (DATE)	 Avgerinos V. GELATOS