## 503100921 12/15/2014 PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT			
NATURE OF CONVEYA	NCE:	ASSIGNMENT			
CONVEYING PARTY D	ΑΤΑ				
		Name	E	xecution Date	
LIQI WU			12/	/01/2014	
SANG HO YU			12/	/01/2014	
KAZUYA DAITO			12/	/01/2014	
KIE JIN PARK			12/	/12/2014	
KAI WU			12/	/01/2014	
DAVID THOMPSON			12/	/01/2014	
RECEIVING PARTY DA	ТА				
Name:		Applied Materials, Inc.			
Street Address:	3050 Bowers Avenue				
City:	Santa Clara				
State/Country:	CALIFORNIA				
Postal Code:	95054				
Property Type		Number			
		14300773			
	ΑΤΑ				
Fax Number:		(732)935-7122			
		o the e-mail address first; if that is d; if that is unsuccessful, it will be		will be sent	
		732-935-7100			
Email:	lzaveta@mtiplaw.com				
Correspondent Name:	MOSER TABOADA/ALAN TABOADA				
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ATTORNEY DOCKET NUMBER:		21732/MDP/CORE MCVD			
NAME OF SUBMITTER:		ALAN TABOADA			
SIGNATURE:		/Alan Taboada/			
DATE SIGNED:		12/15/2014			
Total Attachments: 3		· · · ·			
				TENT	

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## ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses of Inventors:

1) LIQI WU 2178 Laurel Drive Santa Clara, CA 95050

2) SANG HO YU 11676 Paim Spring Court Cupertino, CA 95014

## 3) KAZUYA DAITO

1812 Lee Way Milpitas, CA 95035 4) KIE JIN PARK 7210 Clarendon Street San Jose, CA 95129

5) KAI WU 696 Towle Way, Apt. 11 Palo Alto, CA 94306

6) DAVID THOMPSON 2193 Bentley Ridge Drive San Jose, CA 95138

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

## METHODS FOR FORMING METAL ORGANIC TUNGSTEN FOR MIDDLE OF THE LINE (MOL) APPLICATIONS

for which we have filed an application for a Patent of the United States on June 10, 2014, Serial No. 14/300,773, which claims priority to United States provisional patent application Serial No. 61/978,540, filed on April 11, 2014; 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 Assignor, 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 division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

PATENT REEL: 034507 FRAME: 0849 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, 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 therefor 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.

(Date)

(Date)

(Date)

(Date)

(Date)

(Date)

DAITÓ

**KIE JIN PARK** KAI WU

DAVID THOMPSON

2 Said Assigners hereby covenant and agree to cooperate with said Assigner to enable said Assigner to enjoy to the fullest extent the right tills and interest to said invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assigners shall include prompt production of mertinent 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 Assigners (a) for perfecting in cald Assigners the right tills and interest herein conveyed, (b) for prosecuting any of said applications. (c) for flang and prosecuting substitute, divisional continuing of additional applications covering said invention. (d) for filing and prosecuting applications for relissuance 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 therefor and any Petents granted thereon including without lanitation opposition proceedings, crincellation proceedings, priority, contests, public use proceedings information and court actions, provided however, that the expense incurred by said Assignors in providing such cooperation shall be paid to by said Assignee.

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

4 Seid 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

PATENT

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(Ciate) LIGIWU Date SANG HO YU (Date) KAZUYA DAITO 12/12/14 Date KIE JIN PARK (Date) KAI WU (Date) DAVID THOMPSON RECORDED: 12/15/2014