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PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT4671009

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KEITH TATSEUM WONG	06/13/2017
THOMAS JONGWAN KWON	06/21/2017
SEAN KANG	06/14/2017
ELLIE Y. YIEH	06/22/2017

RECEIVING PARTY DATA

Name:	APPLIED MATERIALS, INC.	
Street Address:	et Address: 3050 BOWERS AVENUE	
City:	SANTA CLARA	
State/Country: CALIFORNIA		
Postal Code:	95054	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15605769

CORRESPONDENCE DATA

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ERICA M. DAVIS **Correspondent Name:**

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ATTORNEY DOCKET NUMBER:	05542-1228001
NAME OF SUBMITTER:	EDWARD L. PENANO
SIGNATURE:	/EDWARD L. PENANO/
DATE SIGNED:	11/02/2017

Total Attachments: 2

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PATENT REEL: 044019 FRAME: 0451 504624291

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses of Inventors:

Keith Tatseum Wong
221 Beethoven Ln
Los Gatos, CA 95032
Thomas Jongwan Kwon
4417 Talle Way
Dublin, CA 94568

Sean Kang	
5132 Holborn Way	
San Ramon, CA 9458	2
Ellie Y. Yieh	
5888 Pistoia Way	
San Jose, CA 95138	

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

TUNGSTEN DEFLUORINATION BY HIGH PRESSURE TREATMENT for which application for Letters Patent in the United States was filed on 5/25/2017, under Serial

No. 15/605,769, 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 the Application), and the invention disclosed therein (hereinafter referred to as the 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 the 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.
- 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.

PATENT REEL: 044019 FRAME: 0452

- 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:	6/13/4	747
		KEITH TATSEUM-WONG
Date:	6/21/2017	Thomas Allon THOMAS JONGWAN KWON
		THOMAŠ JONGWAN KWON
Date:	6/14/17	
		SEAN KANG
Date:	6/22/2017	
	•	ELLIE Y.YIEH

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RECORDED: 11/02/2017

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