505183596 11/09/2018 PATENT ASSIGNMENT COVER SHEET

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	SUBMISSION TYPE:		NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT			
CONVEYING PARTY DA	АТА				
		Name		Execution Date	
XIAOWEI WU				08/24/2018	
DAVID FENWICK				08/24/2018	
JENNIFER Y. SUN			08/23/2018		
MICHAEL R. RICE			08/24/2018		
GUODONG ZHAN			09/16/2018		
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			
Property Type Application Number:		Number 5965812			
	ATA				
Application Number:	ATA				
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PATENT APPLICATION ASSIGNMENT

WHEREAS:

(3)

Names and Addresses of Inventors:

- (1) Xlaowei Wu 175 Baypointe Pkwy, Apt. 402 San Jose, CA 95134
- (2) David Fenwick 28011 Elena Road Los Altos Hills, CA 94022
- (4) Jennifer Y. Sun106 Oak Haven PlaceMountain View, CA 94041
- Michael R. Rice
 1025 Via Di Salerno
 Pleasanton, CA 94566

Guodong Zhan

PO Box 1433

Saudi Aramco

Dhahran 31311 SAUDI ARABIA

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

FLOURINATION PROCESS TO CREATE SACRIFICIAL OXY-FLOURIDE LAYER

for which a patent application of the United States has been filed on <u>April 27, 2018</u> as Serial No. <u>15/965,812</u>; 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:

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.

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PATENT REEL: 047461 FRAME: 0274

Case No. 024912US02/ETCH/ETCH_New ET Chamber/MDD

2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, tille 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.

 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.

, 2018

2018

Dávid Fenwick

2018 (date)

, 2018

2018

Guodong Zhan

JenniferA Sun

Michael R. Rice

2 of 2

Case No. 024912US02/ETCH/ETCH_New ET Chamber/MDD

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 relssuance 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 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.

 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.

, 2018 (date)	Xiaowei Wu
$\frac{\text{(date)}}{\text{Sept 16}^{+}}, 2018$ $\frac{\text{Sept 16}^{+}}{\text{(date)}}, 2018$	David Fenwick
, 2018 (date)	Jennifer Y. Sun
(date) , 2018	Michael R. Rice
Atty. Docket No. 28245.568 (L0308.02)	2 of 2

PATENT REEL: 047461 FRAME: 0276

RECORDED: 11/09/2018