504349781 05/03/2017

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DAPING YAO	04/27/2017
KENRIC CHOI	05/02/2017
XIAOXIONG YUAN	04/27/2017
JIANG LU	04/27/2017
CAN XU	04/28/2017
PAUL F. MA	04/28/2017
MEI CHANG	05/01/2017

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15471291

CORRESPONDENCE DATA

Fax Number:

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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Correspondent Name: SERVILLA WHITNEY LLC
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ATTORNEY DOCKET NUMBER: 023799USA	
NAME OF SUBMITTER:	JEFFREY I. BLANKMAN
SIGNATURE:	/Jeffrey I. Blankman, Reg. #57826/
DATE SIGNED:	05/03/2017

PATENT REEL: 042394 FRAME: 0011

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Total Attachments: 3 source=00665530#page1.tif source=00665530#page2.tif source=00665530#page3.tif

PATENT REEL: 042394 FRAME: 0012

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses of Inventors

1)	Daping Yao 1571 Jacob Ave San Jose, CA, 95118 United States of America	
2)	Kenric Choi 1115 South Daniel Way San Jose, CA, 95128 United States of America	
3)	Xiaoxiong Yuan 2162 Capitol Park Ct San Jose, CA, 95132 United States of America	
4)	Jiang Lu 968 Matterhorn Court Milpitas, CA, 95035 United States of America	

5)	Can Xu 4589 Elmhurst Drive San Jose, CA, 95129 United States of America
6)	Paul F. Ma 3041 Pruneridge Ave. Santa Clara, CA, 95051 United States of America
7)	Mei Chang 12881 Corte De Arguello Saratoga, CA, 95070 United States of America

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

"Apparatus And Methods To Remove Residual Precursor Inside Gas Lines Post-Deposition" for which application for Letters Patent in the United States was filed on March 28, 2017, under Serial No. 15/471,291, 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, CA, 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:

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.

- Said Assignes 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 Assigners 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 filling and prosecuting substitute, divisional, continuing or additional applications covering said Invention; (d) for filling 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 coverants 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)		
		(INVENTOR) Daping Yao
2)	S [V 17 2017	<u> Un an</u>
		(INVENTOR) Kenric Choi
3)	04/27/247_2017	Dymania
1005		(INVENTOR) Xiaoxiong Yuan
4)	04/2Z	
.000		(INVENTOR) Jiang Lu

5) 04/18 ,2017

(INVENTOR) Can Xu

6) <u>04/28/</u>,2017

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7) 5// 2017

(INVENTOR) Mei Chang