11/23/2018 505202984

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HANBING WU	10/01/2018
ANANTHA K. SUBRAMANI	11/18/2018
ASHISH GOEL	02/16/2018
XIAODONG WANG	02/15/2018
WEI W. WANG	02/15/2018
RONGJUN WANG	02/15/2018
CHI HONG CHING	02/15/2018

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

Property Type	Number
Application Number:	15890694

CORRESPONDENCE DATA

Fax Number: (732)935-7122

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.

Phone: 732-935-7100

Email: Izaveta@mtiplaw.com

MOSER TABOADA/ALAN TABOADA **Correspondent Name:**

1030 BROAD STREET Address Line 1:

Address Line 2: SUITE 203

Address Line 4: SHREWSBURY, NEW JERSEY 07702

ATTORNEY DOCKET NUMBER:	APPM24747
NAME OF SUBMITTER:	ALAN TABOADA
SIGNATURE:	/ALAN TABOADA/
DATE SIGNED:	11/23/2018

PAIENI REEL: 048146 FRAME: 0931 505202984

Total Attachments: 5 source=APPM24747#page1.tif source=APPM24747#page2.tif source=APPM24747#page3.tif source=APPM24747#page4.tif source=APPM24747#page5.tif

PATENT REEL: 048146 FRAME: 0932

Case No. 24747US01

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses of Inventors:

1) HANSING WU

830 El Capitan Dr.

Millbrae, CA 94030

2) ANANTHA K. SUBRAMANI

4245 Merlot Court

San Jose, CA 95135

3) ASHISH GOEL

74/3, 6th A Main, Malleshpalya,

New Thipsandra,

Sangalore - 560075

Kamataka, India

4) XIAODONG WANG

4493 Kirk Road

San Jose, CA 95124

5) WEIW, WANG

2201 Monroe St #804

Santa Clara, CA 95050

6) RONGJUN WANG

5139 Hinsdale CT,

Dublin, CA 94568

7) CHI HONG CHING

2805 Barcella Avenue

Santa Clara, CA 95051

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

METHODS AND APPARATUS FOR MULTI-CATHODE SUBSTRATE PROCESSING

for which we have filed an application for a Patent of the United States on February 7, 2018, having Serial No. 15/890,594; which claims priority to United States provisional patent application Serial No. 62/461,749, filed February 21, 2017; 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 Assigner, 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.

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

- Said Assignore 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 confinuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.
- 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 perfinent facts and documents, giving testimony, execution of pelitions, caths, 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 therefor and any Patents granted thereon, including without limitation opposition proceedings, caricellation 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 Assignes.
- 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 indinated below.

(DATE)	HANBING WU
(DATE)	anantha k, submamani
9/16/2018(DATE)	ASHISH doel
02/15/2018 (DATE)	XIAODONG WANG

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2/15/18	_(DATE)
2/(s/18	_(DATE)
2/15/18	_(OATE)

WEIW. WANG J

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KONGJUN WANG

CHI HONG CHING

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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.
- 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)	HANBING WU
18th Novembu 2018	Adhenson
	ANANTHA K. SUBRAMANI
(DATE)	ASHISH GOEL
(DATE)	XIAODONG WANG

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

(BTAD)	HANBING WU
(DATE)	ANANTHA K. SUBRAMANI
(DATE)	ASHISH GOEL
(DATE)	XIAODONG WANG

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