## PATENT ASSIGNMENT

# Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
Kedar Sapre	08/30/2012
Jing Tang	09/06/2012
Ajay Bhatnagar	08/30/2012
Nitin Ingle	08/30/2012
Shankar Venkataraman 08/30/20	

#### RECEIVING PARTY DATA

Name:	Applied Materials, Inc.
Street Address:	3050 Bowers Avenue
City:	Santa Clara
State/Country:	CALIFORNIA
Postal Code:	95054

## PROPERTY NUMBERS Total: 2

Property Type	Number
Application Number:	13593412
Application Number:	61528137

## **CORRESPONDENCE DATA**

Fax Number: 4155388380

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Phone: 415 538 1555 Email: jaoffice@janah.com

JANAH & ASSOCIATES, P.C.

650 DELANCEY STREET, SUITE 106 Address Line 4: SAN FRANCISCO, CALIFORNIA 94107

ATTORNEY DOCKET NUMBER: 13262

Libby Wilke NAME OF SUBMITTER:

REEL: 029184 FRAME: 0459

Correspondent Name:

Address Line 1:

PATENT

502106075

## Total Attachments: 6

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PATENT REEL: 029184 FRAME: 0460

### ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses of Inventors:

1)	Kedar Sapre A citizen of India 108 Bryant Street, Apt 7 Mountain View, CA 94041 U.S.A.;	2)	Jing Tang A citizen of P.R. China 4331 Renaissance Dr. Apt. 202 San Jose, CA 95134 USA;
3)	Ajay Bhatnagar A citizen of India 812 Kolb Place Santa Clara, CA 95050 U.S.A.;	4)	Nitin Ingle A citizen of India 633 Hudson Drive Santa Clara, CA 95051 USA; and
5)	Shankar Venkataraman A citizen of India 3444 Notre Dame Drive Santa Clara, CA 95051 USA		

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

### "DOUBLE PATTERNING ETCHING PROCESS"

[ ] which is attached hereto

[X] for which a provisional application for Letters Patent in the United States was filed on August 26, 2011 under Serial No. 61/528,137, and for which an application for Letters Patent in the United States was filed on August 23, 2012 under Serial No. 13/593,412, and 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 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.

PATENT REEL: 029184 FRAM<del>E: 0461</del> 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.
- 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:

1)		
•	Date	Kedar Sapre
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	2.1.1	
2)	9/6/2012	A ( had
)	Date	Jing TANG
	Date	

3)		
	Date	Ajay BHATNAGAR
4)		
	Date	Nitin INGLE
5)		
	Date	Shankar VENKATARAMAN

PATENT REEL: 029184 FRAME: 0463

### ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses of Inventors:

1)	Kedar Sapre A citizen of India  108 Bryant Street, Apt 7  Mountain View, CA 94041  U.S.A.; Seq Posen dans 9/5/12  Gardone 95/30	2)	Jing Tang A citizen of P.R. China 622 Harvard Avenue Santa Clara, CA 95051 USA;	7
3)	Ajay Bhatnagar A citizen of India USA 812 Kolb Place Santa Clara, CA 95050 U.S.A.;	4)	Nitin Ingle A citizen of India USA 633 Hudson Drive 1435 GRAYWOW Santa Clara, GA 95051 SAN JOSE, CA USA; and	L
5)	Shankar Venkataraman A citizen of India USA 3444 Notre Dame Drive Santa Clara, CA 95051 USA		THORNTRES DR POSE CA 95720 VNB 9151-2	

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## "DOUBLE PATTERNING ETCHING PROCESS"

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PATENT REEL: 029184 FRAME: 0464 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 anyand 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.
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1)	08)30/12	
	Date	Kedar Saþre
2)		
,	Date	Jing TANG

3)	8/30/2012
	Date /

Ajay BHATNAGAR

4)	8/30/201	2
	Date /	

5)	8/30/12
•	Date

Shankar VENKATARAMAN

PATENT REEL: 029184 FRAME: 0466

**RECORDED: 10/24/2012**