

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>RADHIKA MANI</td> <td>04/13/2007</td> </tr> <tr> <td>NICOLAS GANI</td> <td>04/13/2007</td> </tr> <tr> <td>WEI LIU</td> <td>04/16/2007</td> </tr> <tr> <td>MEIHUA SHEN</td> <td>04/16/2007</td> </tr> <tr> <td>SHASHANK C. DESHMUKH</td> <td>04/13/2007</td> </tr> </tbody> </table>		Name	Execution Date	RADHIKA MANI	04/13/2007	NICOLAS GANI	04/13/2007	WEI LIU	04/16/2007	MEIHUA SHEN	04/16/2007	SHASHANK C. DESHMUKH	04/13/2007
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RECEIVING PARTY DATA													
Name:	APPLIED MATERIALS, INC.												
Street Address:	P.O. BOX 450A												
Internal Address:	LEGAL AFFAIRS DEPT.												
City:	SANTA CLARA												
State/Country:	CALIFORNIA												
Postal Code:	95052												
PROPERTY NUMBERS Total: 1													
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>11736562</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	11736562								
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CORRESPONDENCE DATA													
Fax Number:	(408)986-3090												
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>													
Phone:	408-563-2726												
Email:	robert_mulcahy@contractor.amat.com												
Correspondent Name:	Robert W. Mulcahy												
Address Line 1:	P.O. BOX 450A												
Address Line 2:	LEGAL AFFAIRS DEPT.												
Address Line 4:	SANTA CLARA, CALIFORNIA 95052												
ATTORNEY DOCKET NUMBER:	AM11110/ETCH/MDD												

CH \$40.00 11736562

NAME OF SUBMITTER:

ROBERT W. MULCAHY

Total Attachments: 2

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ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses
of Inventors:

1)	Radhika Mani 1000 Escalon Avenue, Apt. K 2082 Sunnyvale, CA 94085 United States	2)	Nicolas Gani 1003 Winston Court San Jose, CA 95131 United States
3)	Wei Liu 5035 Moorpark Avenue San Jose, CA 95129 United States	4)	Meihua Shen 694 Perry Common Fremont, CA 94539 United States
5)	Shashank C. Deshmukh 2168 Pettigrew Drive San Jose, CA 95148 United States		

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

ETCHING OF SiO_2 WITH HIGH SELECTIVITY TO Si_3N_4 AND ETCHING METAL OXIDES WITH HIGH SELECTIVITY TO SiO_2 AT ELEVATED TEMPERATURES WITH BCl_3 BASED ETCH CHEMISTRIES

for which application for Letters Patent in the United States was filed on , under Application No. , 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.

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

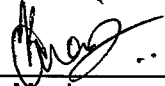

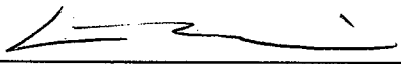

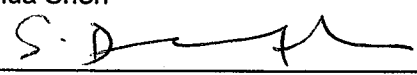
1. Said Assignors hereby sell, assign, transfer and convey to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention 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)	<u>13th April</u>	, 2007		Radhika Mani
2)	<u>13th April</u>	, 2007		Nicolas Gani
3)	<u>16th April</u>	, 2007		Wei Liu
4)	<u>April 16</u>	, 2007		Meihua Shen
5)	<u>13th April 07</u>	, 2007		Shashank C. Deshmukh

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