

09-15-1999

9-10-99

FORM PTO-1595 (Rev. 6-93) OMB No. 0651-0011 (exp. 4/94)

REC

U.S. Department of Commerce Patent And Trademark Office

101145264

To the Honorable Commissioner of Patents and Trademarks: Please refer to the attached original document or copy thereof.

1. Name of conveying party(ies):

	Date
Shulin Wang	8/10/99
Ming Xi	8/10/99
Frederick Wu	8/10/99
Ramanujapuram A. Srinivas	8/11/99
Yehuda Demayo	8/10/99
Zvi Lando	8/12/99
Mei Chang	8/10/99
Russell C. Ellwanger	8/13/99

Additional name(s) of conveying party(ies) attached?  Yes  No

3. Nature of conveyance:

Assignment  Merger

Security Agreement  Change of Name

Other \_\_\_\_\_

Execution Date: SEE ABOVE

2. Name and address of receiving party(ies):

Name: Applied Materials, Inc.

Internal Address: P.O. Box 450-A

Street Address: \_\_\_\_\_

City: Santa Clara State: CA Zip: 95052

Additional name(s) & address(es) attached?  Yes  No

4. Application number(s) or registration number(s):

If this document is being filed together with a new application, the mailing date of the application is: \_\_\_\_\_ (Date of Filing)

A. Patent Application No.(s) 09/330,696 FILED ON 6/11/99

B. Patent No.(s) \_\_\_\_\_

Additional numbers attached?  Yes  No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Patent Counsel

Internal Address: APPLIED MATERIALS, INC.

Street Address: P.O. Box 450-A

City: Santa Clara State: CA Zip: 95052

6. Total number of applications and patents involved: 1

7. Total fee (37 C.F.R. 3.41)----- \$ 40.00

Enclosed

Authorized to be charged to deposit account

01-1651

8. Deposit account number: 01-1651

DO NOT USE THIS SPACE

9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

ROBERT W. MULCAHY Reg No. 25,436

Name of Person Signing [Signature] Date 9/7/99

Total number of pages including cover sheet, attachments and document: 3

Mail documents to be recorded with required cover sheet information to: Commissioner of Patents & Trademarks, Box Assignments Washington, D.C. 20231

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09/15/1999 DNGUYEN 00000126 011651 09330696

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J:\FORMS\272 (AUGUST 20, 1993)

PATENT REEL: 010224 FRAME: 0752

**ASSIGNMENT FOR APPLICATION FOR PATENT**

WHEREAS:

Names and Addresses  
of Inventors:

- |  |   |
|--|---|
| 1) Shulin Wang<br>959 Steinway Avenue<br>Campbell, CA 95008                | 5) Yehuda Demayo<br>2179 Calla Court<br>San Jose, CA 95133                          |
| 2) Ming Xi<br>138 Beanmere Way<br>Milpitas, CA 95035                       | 6) Zvi Lando<br>275 Ventutor Ave.<br>Palo Alto, CA 94906                            |
| 3) Frederick Wu<br>7771 Orion Place<br>Cupertino, CA 95014                 | 7) Mei Chang<br>12881 Corte de Arguello<br>Saratoga, CA 95070                       |
| 4) Ramanujapuram A. Srinivas<br>6609 Mt. Holly Drive<br>San Jose, CA 95120 | 8) Russell C. Ellwanger<br>565 Mission Vineyard Road<br>San Juan Bautista, CA 95045 |

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

**METHOD OF DEPOSITING A THICK TITANIUM NITRIDE FILM**

for which we have filed an application for a Patent of the United States on June 11, 1999, Serial No. 09/330,696; 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>Aug. 10</u>	, 1999	<u>Shulin Wang</u> Shulin Wang
2)	<u>Aug 10</u>	, 1999	<u>Ming Xi</u> Ming Xi
3)	<u>Aug 10</u>	, 1999	<u>Frederick Wu</u> Frederick Wu
4)	<u>8/11/99</u>	, 1999	<u>Ramakujapuram A. Srinivas</u> Ramakujapuram A. Srinivas
5)	<u>8/10/99</u>	, 1999	<u>Yehuda Demayo</u> Yehuda Demayo
6)	<u>8/10/99</u>	, 1999	<u>Zvi Lando</u> Zvi Lando
7)	<u>Aug 10</u>	, 1999	<u>Mei Chang</u> Mei Chang
8)	<u>Aug 13</u>	, 1999	<u>Russell C. Ellwanger</u> Russell C. Ellwanger

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

Re: Inventor: Shulin WANG , et al  
Title: METHOD OF DEPOSITING A THICK TITANIUM NITRIDE FILM  
Serial No.: 09/330,696 Filed: 11JE1999  
Attorney Docket No.: 003571 USA

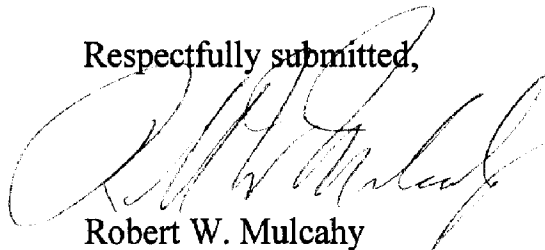
Transmitted herewith is a request for recordal of an assignment of the subject invention in the form of the enclosed RECORDATION FORM COVER SHEET (FORM 1595).

No additional fee is required.

The total fee of \$40.00 under 37 CFR 3.41 has been authorized for payment in the enclosed FORM 1595.


The Commissioner is hereby authorized to charge the charge any additional fees which may be required, or credit any overpayment, to Deposit Account No. 01-1651.

Respectfully submitted,



Robert W. Mulcahy  
Registration No. 25,436

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:  
Commissioner of Patents and Trademarks,  
Washington, D.C. 20231 on September 7, 1999

  
Jo Ann Cottrell