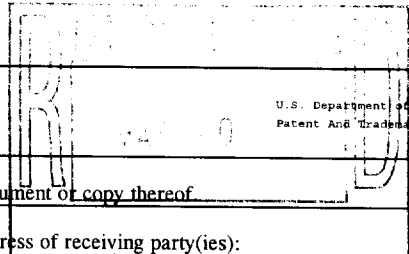


05-20-1999



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

HEET

U.S. Department of Commerce Patent and Trademark Office

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

MRD 5-10-99

1. Name of conveying party(ies):

ROBIN CHEUNG Date 04/21/1999
ASHOK SINHA 04/22/1999
AVI TEPMAN 04/21/1999
DAN CARL 04/21/1999

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

3. Nature of conveyance:

X Assignment Merger
Security Agreement Change of Name
Other

Execution Date:

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 X 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) 09/263,126 FILED ON 03/05/1999

B. Patent No.(s)

Additional numbers attached? Yes X 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

X Authorized to be charged to deposit account

01-1651

8. Deposit account number:

01-1651

05/19/1999 DNGUYEN 00000182 011651 09263126

01 FE-581 40.00 CH

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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 5/13/99

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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**ASSIGNMENT FOR APPLICATION FOR PATENT**

WHEREAS:

Names and Addresses  
of Inventors:

1)	ROBIN CHEUNG 21428 KRZICH PLACE CUPERTINO, CA 95014	2)	ASHOK SINHA 4176 HUBBART DRIVE PALO ALTO, CA 95014
3)	AVI TEPMAN 21610 RAINBOW DRIVE CUPERTINO, CA. 95014	4)	DAN CARL <del>2308 DUNDEE DRIVE</del> SANTA CLARA, CA. 95051

2161 POMEZIA CT  
PLEASANTON, CA 94566

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

" APPARATUS FOR ELECTRO CHEMICAL DEPOSITION OF COPPER METALLIZATION WITH THE CAPABILITY OF IN-SITU THERMAL ANNEALING"

for which application for Letters Patent in the United States was filed on 03/05/1999,  
under Serial No.09/263,126, executed on even date herewith.

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.


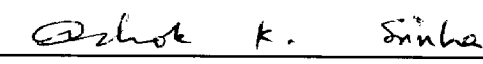
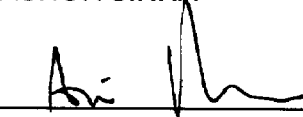
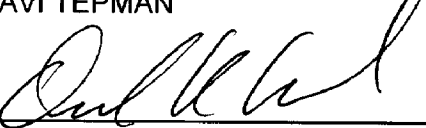
2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt 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>4/21</u> , 1999	 ROBIN CHEUNG
2)	<u>4/22/</u> , 1999	 ASHOK SINHA
3)	<u>4/21/99</u> , 1999	 AVI TEPMAN
4)	<u>4/21/99</u> , 1999	 DAN CARL

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

May 4, 1999

Re: Inventor: ROBIN CHEUNG et al.  
Title: "APPARATUS FOR ELECTRO CHEMICAL DEPOSITION OF COPPER METALLIZATION WITH THE CAPABILITY OF IN-SITU THERMAL ANNEALING"  
Serial No: 09/263,126 Filing Date: 03/05/1999

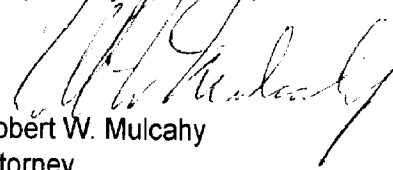
Transmitted herewith is a request for recordal of an assignment of the subject invention in the form of the enclosed RECORDATION FORM COVER SHEET (FORM 1595).

     No additional fee is required.

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

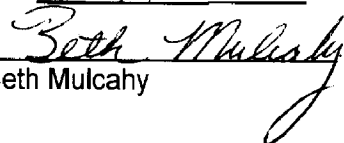
XX The Commissioner is hereby authorized to charge any additional fees (to the \$40.00 authorized in the enclosed FORM 1595) which may be required, or credit any overpayment to Deposit Account No. 01-1651. A duplicate copy of this transmittal is enclosed.

Respectfully submitted,

  
Robert W. Mulcahy  
Attorney  
Registration No. 25,436

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail addressed to: U.S. Patent and Trademark Office, Assignment Division, Box Assignments, 1213 Jefferson Davis Hwy, Suite 320, Washington, D.C. 20231.

Date of Deposit May 4, 1999

Signature   
Beth Mulcahy