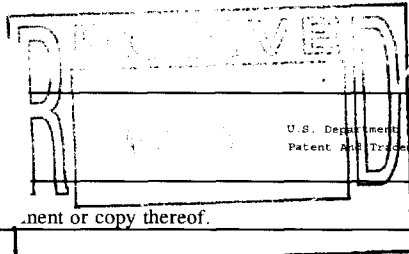


Hand

08-25-1999



FORM PTO-1595 (Rev. 6-93) GMB No. 0652-0022 (exp. 4/94)

9/23/99



101125706

To the Honorable Commissioner of Patents and

ment or copy thereof.

1. Name of conveying party(ies):

SHRI SINGHVI

Date 08/09/1999

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) 09/340,977 FILED ON 06/28/99

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

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

8/18/99 Date

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

O:\Intell Prop\BMULCAHY\Beth\My Briefcase\FORMS\New-Patent\1Assignment.Cover.doc

08/24/1999 MTHAI1 00000304 011651 09340977

01 FC:581 40.00 CH

Case #3693/MD/COMMON/DV

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses
of Inventors:

| | | | |
|----|----------------------------------------------------------------------|----|------------------------------------------------------------|
| 1) | SANG-HO YU 718 OLD SAN FRANCISCO RD., #200 SUNNYVALE, CA 94086 | 2) | YONGHWA CHRIS CHA 5485 LAUREN DR. SAN JOSE, CA 95124 |
| 3) | MURALI ABBURI 2851 HOMESTEAD RD., #304 SANTA CLARA, CA 95051 | 4) | SHRI SINGHVI 2213 STRATFORD DR. MILPITAS, CA 95035 |
| 5) | FUFA CHEN 10420 MILLER AVE CUPERTINO, CA 95014 | 6) | |

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

"STAGED ALUMINUM DEPOSITION PROCESS FOR FILLING VIAS"for which application for Letters Patent in the United States was filed on 6/28/99,
under Serial No. 09/340,977, 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) _____, 1999 _____
SANG-HO YU
- 2) _____, 1999 _____
YONGHWA CHRIS CHA
- 3) _____, 1999 _____
MURALI ABBURI
- 4) 8/9/, 1999 
SHRI SINGHVI
- 5) _____, 1999 _____
FUFA CHEN