Form PRO-1595 (Rav. 09/04) CMB No. 0861-0027 (exp. 6/30/2006)	U.S. Department of COMMERCE United States Patent and Tradement Office				
I .	ORM COVER SHEET				
PATENTS ONLY					
To the Director of the U.S. Patents and Trademark Office: Please record the attached documents or the new address(es) below.					
1. Name of convaying party(ies): CRAIG R. METZNER SHREYAS S. KHER VIDYUT GOPAL SHIXUE HAN SHANKARRAM A. ATHREYA September 16, 2002 September 16, 2002 September 16, 2002 September 16, 2002	Name and address of receiving party(ies) Name: APPLIED MATERIALS, INC. Internal Address: Patent Counsel				
Additional name of conveying party(ies) attached? ☐ Yes ☑ No	Street Address: P.O. Box 450-A				
3. Nature of conveyance:	Slied Address. F.O. DOX 450-A				
Execution Date(s)					
	City: Santa Clara				
☐ Security Agreement ☐ Change of Name	State: CA				
Government Interest Assignment	Country: USA Zip: 95052				
☐ Executive Order 9424, Confirmatory License	Additional Name(s) & address(es) attached? Yes No				
A. Patent Application No.(s) 11/421,293, Filed May 31, 2006	This document is being filed together with a new application. B. Patent No.(s)				
Additional numbers attached? Yes No					
Name and address of party to whom correspondence concerning this document should be malled;	Total number of applications and patents involved:				
Name: Patterson & Sheridan, L.L.P.	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00				
Internal Address: Applied Materials, Inc.	Authorized to be charged by credit card				
	Authorized to be charged to deposit account				
Street Address: 3040 Post Oak Boulevard, Suite 1500	☐ Enclosed				
City: Houston	☐ None required (government interest not affecting titte)				
State: TX Zip: 77056	8. Payment information				
Phone Number : 713-623-4844	a. Credit Card Last 4 Numbers Expiration Date				
Fax Number: 713-623-4846	b. Deposit Account Number 50-				
Email Address: tpatterson@pattersonsheridan.com	1074/007555.C1/FEP/GCWAG Authorized User Name Robert W. Mulcahy				
9. Signature : Signature	June 1, 2006 Date				
Robert W. Mulcahy - Reg No. 25,436 Name of Person Signing	Total number of pages, sheet, attachments, and documents including cover				

PATTERSON&SHERIDAN

Documents to be recorded (including cover sheet) should be taxed to (703) 306-5985, or mailed to: Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

Atty, Dkt. No. 7555/TCG/GCM/BG

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names of Inventors:

1)	Craig R. Metzner	2)	Shreyas S. Kher
3)	Vidyut Gopal	4)	Shixue Han
5)	Shankarram A. Athreya		

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

ALD METAL OXIDE DEPOSITION PROCESS USING DIRECT OXIDATION

for which application for Letters Patent in the United States is being filed 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

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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)	09/16, 2002	CAN TO
	, 1	Craig R. Metzner
2)	09/16, 2002	SVV CO COCC
	,	Shreyas S. Kher
3)	09/16, 2002	Vident Gopul Vidwit Gopal
4)	99/16, 2002	Jax 1
-	م ادر	Shixue Han
5)	<u>89/16</u> , 2002	Shankarram A. Athreya
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