05-22-2003

U.S. DEPARTMENT OF COMMERCE

(Rev. 10/02) OMB No. 0651-0027 (exp. 6/30/2005)	U.S. Patent and Trademark Office			
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To the Honorable Commissioner of Patents and Tradema	rks: Please record the attached original documents or copy thereof.			
1. Name of conveying party(ies): Marie Mitchel John L. Shartel, II Yakov Epshteyn	2. Name and address of receiving party(ies) Name: Novellus Systems, Inc. Internal Address:			
Additional name(s) of conveying party(ies) attached? Yes	No			
3. Nature of conveyance: Assignment Merger Security Agreement Change of Name Other				
	City: San Jose State: CA Zip: 95134			
04/29/03 Execution Date:				
Application number(s) or patent number(s): If this document is being filed together with a new a A. Patent Application No.(s)				
Additional number	rs attached? Yes No			
Name and address of party to whom correspondent concerning document should be mailed:	ce 6. Total number of applications and patents involved:			
Name:	7. Total fee (37 CFR 3.41)\$			
Internal Address:	Enclosed			
Street Address: Ingrassia Fisher & Lorenz, P.C 7150 E. Camelback Road, Suite 325	8. Deposit account number:			
City: Scottsdale State: AZ Zip: 85251				
DO NOT USE THIS SPACE				
9. Signature. John A. Fisher, Reg. No. 28,505	May 13, 2003			
Name of Person Signing	Signature Date			
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PATENT REEL: 014080 FRAME: 0311

United States Utility Patent Application Attorney Docket No.: 004.0032 First Named Inventor: MARIE MITCHEL

ASSIGNMENT

WHEREAS, the undersigned inventor(s) (hereinafter individually and collectively referred to as "ASSIGNOR") have invented:

METHOD FOR CHEMICAL MECHANICAL PLANARIZATION (CMP) AND CHEMICAL MECHANICAL CLEANING (CMC) OF A WORK PIECE
for which application for Letters Patent of the United States: [X] has been executed on even date herewith; [] executed on; [] was filed on and assigned U.S. Application Serial No;
AND WHEREAS, Novellus Systems, Inc., a [X] corporation; [] partnership; individual [] having a place of business at 4000 N. First Street, San Jose, CA 95134 (hereinafter "ASSIGNEE"), and successors, assigns, and legal representatives, is desirous of acquiring an interest therein;
AND WHEREAS, a "formal application," as referred to herein, shall mean any provisional, nonprovisional, continuation, continuation in part, continued prosecution, substitute, renewal, extension, divisional, reissue, reexamination, foreign, Patent Cooperation Treaty (PCT) or other patent application, inventor's certificate, or like document;
NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR does hereby sell, assign and transfer unto ASSIGNEE, its successors, assigns and legal representatives, the full and exclusive right to the aforesaid application, to the invention as described in the aforesaid application, and to any formal application which may be filed based in whole or in part on the aforesaid application, in the United States and all foreign countries, together with the right of priority under any international agreements to which the United States currently adheres and adheres to in the future, and hereby authorizes and requests the Commissioner of Patents to issue said Letters Patent to ASSIGNEE, for the sole use and benefit of ASSIGNEE, its successors, assigns and legal representatives,
AND ASSIGNOR HEREBY AGREES to transfer, upon request of ASSIGNEE, its

successors, assigns and legal representatives, and without further remuneration, a like interest in and to any improvements and formal applications based thereon, growing out of or relating to the invention; and, without further remuneration, to provide all reasonable assistance and execute any papers requested by ASSIGNEE, its successors, assigns and legal representatives, to preserve

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and/or acquire ASSIGNEE's full protection and title in and to the invention hereby transferred and any improvements therein,

ASSIGNOR AGREEING, FURTHERMORE, upon request of ASSIGNEE, and without further remuneration, to execute any and all papers desired by ASSIGNEE for the filing and granting of formal applications based on the invention or improvements therein, and the perfecting of title thereto in ASSIGNEE.

EXECUTED as of the date(s) written below by ASSIGNOR:

Mani Muchel		Da	ate: <u>4/29/03</u>	
Inventor's Signature				
MARIE MITCHEL Inventor's Printed Name				
STATE OF <u>ARIZONA</u>)			
COUNTY OF Maricopa)			
On this 29^{th} day of 4	Pril ,_	<u> ಎ೦೦ 3</u> , bef	fore me personally of	came the
above named MARIE MITCHEI	L who is personally know	vn by me or p	proved to me on the	basis of
satisfactory evidence to be the sa				
acknowledged to me that he/sh	e executed the same of	his/her own		use and
purposes therein set forth.			DEBBIE SIMPSON Notary Public – Arizona Maricopa County Expires 02/15/06	
NO	OTARY PUBLIC		Lxpiles 02/15/06	Ω
	y Commission Expires: _	2/15/06	Delibre	Lough -

Inventor's Signature	Date: 4/29/03
JOHN L. SHARTEL, II Inventor's Printed Name	
STATE OF ARIZONA	_)
COUNTY OF Maricopa	_)
above named JOHN L. SHAD basis of satisfactory evidence and who acknowledged to me and purposes therein set forth.	RTEL, II who is personally known by me or proved to me on the to be the same individual who executed the foregoing assignment, that he/she executed the same of his/her own free will for the use DEBBIE SIMPSON Notary Public – Arizona Maricopa County Expres 02/15/06 NOTARY PUBLIC My Commission Expires: 2/15/06
Yauer Enleter	Date: 4-29-83
Inventor's Signature	
YAKOV EPSHTEYN Inventor's Printed Name	
STATE OF ARIZONA	_)
COUNTY OF Maricola)

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On this 29^{th} day of 9^{th} day of 9^{th} , 9^{t

NOTARY PUBLIC

My Commission Expires: _2/15

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RECORDED: 05/13/2003

PATENT REEL: 014080 FRAME: 0315

Notary Public – Arizona Maricopa County Expires 02/15/06