

07-21-2003

Form PTO-1595
(Rev. 10/02)



U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office

OMB No. 0651-0027 (exp. 6/30/2005)

102502329

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

1. Name of conveying party(ies):

Coriolan I. Frum
Zhifeng Sui
Hongqing Shan

7-7-03 5/14/03
5/14/03
5/18/03

2. Name and address of receiving party(ies)

Name: Applied Materials, 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 _____

Street Address: 3050 Bowers Avenue

City: Santa Clara State: CA Zip: 95054

Execution Date: - See Above -

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

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

10615159

If this document is being filed together with a new application, the execution date of the application is: 7-7-2003

A. Patent Application No.(s)

B. Patent No.(s)

Additional numbers attached? Yes No

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

Name: Applied Materials, Inc.

Internal Address: Patent Department, M/S 2061

Street Address: P.O. Box 450A

City: Santa Clara State: CA Zip: 95052

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41).....\$ 40.00

- Enclosed
- Authorized to be charged to deposit account

8. Deposit account number:

50-1074

(Attach duplicate copy of this page if paying by deposit account)

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

[Handwritten Signature]

Signature

7/7/03

Date

Total number of pages including cover sheet, attachments, and documents: 5

21906 U.S. PTO
10/615159
07/07/03

07/18/2003 LWEILLER 00000169 501074 10615159

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Docket No. 007352 USA/ETCH/DRIE/JB

PATENT
REEL: 014279 FRAME: 0475

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses of Inventors:

- | | |
|---|--|
| 1) Coriolan I. Frum
20870 Panorama Drive
Los Gatos, California 95033
U.S.A. | 2) Zhifeng Sui
41706 Covington Drive
Fremont, California 94539
U.S.A. |
| 3) Hongqing Shan
1369 South Stelling Road
Cupertino, California 95014
U.S.A. | |

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

"INTERFEROMETRIC ENDPOINT DETECTION IN A SUBSTRATE ETCHING PROCESS"

which is attached hereto

for which application for Letters Patent in the United States was filed on _____, under Serial No. _____, executed on even date 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:

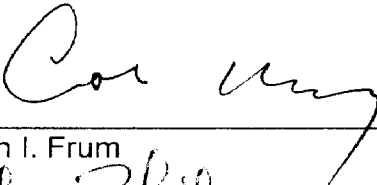
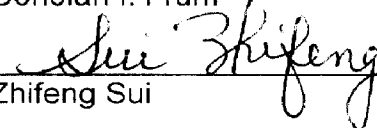
1. Said Assignors hereby sell, assign, transfer, and convey to Assignee the full and exclusive right, title, and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention 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 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>5/14/03</u> Date	 _____ Coriolan I. Frum
2)	<u>5/14/03</u> Date	 _____ Zhifeng Sui
3)	_____ Date	_____ Hongqing Shan

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WHEREAS:

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| 1) Coriolan I. Frum
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Los Gatos, California 95033
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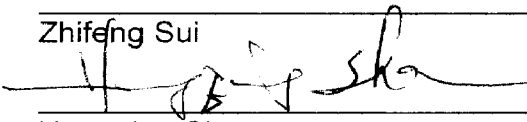
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	Date	Coriolan I. Frum
2)	_____	_____
	Date	Zhifeng Sui
	5/18/03	
3)	_____	_____
	Date	Hongqing Shan