

Form PTO-1595 (Rev. 03-11)
OMB No. 0651-0027 (exp. 04/30/2015)

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

RECORDATION FORM COVER SHEET PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)

Jaroslav W. Winniczek; Frank Y. Lin; Alan J. Miller; Qing Xu;
Seongjun Meo; Jin Hwan Ham; Sang Joon Yoon; Camelia Rusu

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

3. Nature of conveyance/Execution Date(s):

Execution Date(s) _____

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Joint Research Agreement
☐ Government Interest Assignment
☐ Executive Order 9424, Confirmatory License
☐ Other _____

2. Name and address of receiving party(ies)

Name: Lam Research Corporation

Internal Address: _____

Street Address: 4650 Cushing Parkway

City: Fremont

State: CA

Country: USA Zip: 94538

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

4. Application or patent number(s):

☐ This document is being filed together with a new application.

A. Patent Application No.(s)

B. Patent No.(s)

13/416,465

Additional numbers attached? ☐ Yes ☒ No

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

Name: Michael S. Brandt

Internal Address: CA-1, Legal Department

Street Address: 4650 Cushing Parkway

City: Fremont

State: CA Zip: 94538

Phone Number: 510-572-1667

Docket Number: P2238PUS

Email Address: michael.brandt@lamrc.com

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00

- ☒ Authorized to be charged to deposit account
☐ Enclosed
☐ None required (government interest not affecting title)

8. Payment Information

Deposit Account Number 501842

Authorized User Name Michael S. Brandt

9. Signature:



Signature

May 11, 2012

Date

Michael S. Brandt

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents: 7

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O. Box 1450, Alexandria, V.A. 22313-1450

CH \$40.00 501842 13416465

Serial No. 13/416,465

Attorney Docket No.
P2238US**ASSIGNMENT**

WHEREAS, I, the undersigned inventor (or one of the undersigned joint inventors), of residence as listed, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made, the said application having been executed on the date set forth below; and


WHEREAS, Lam Research Corporation, a corporation organized and existing under the laws of the State of Delaware, with a place of business at 4650 Cushing Parkway, Fremont, CA, 94538, is desirous of acquiring my entire right, title and interest in and to the said invention, and to the said application and any Letters Patent that may issue thereon;


NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell and assign to the said Lam Research Corporation, its successors and assigns, my entire right, title and interest in and to the said invention and in to the said application and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Commissioner of Patents and Trademarks to issue all patents for said invention, or patent resulting therefrom, insofar as my interest is concerned, to the said Lam Research Corporation, as assignee of my entire right, title and interest.

I also hereby sell and assign to Lam Research Corporation, its successors and assigns, my foreign rights to the invention disclosed in said application, in all countries of the world, including the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, and of the European Patent Convention, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

I hereby further agree that I will communicate to said Lam Research Corporation, or to its successors, assigns, and legal representatives, any facts known to me respecting said invention, and at the expense of said assignee company, testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, reissue and substitute applications, make all lawful oaths, and generally do everything possible to aid said Lam Research Corporation, its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries.

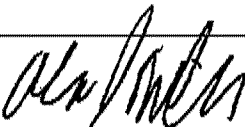
IN WITNESS WHEREOF, I hereunto set hand and seal this day and year;

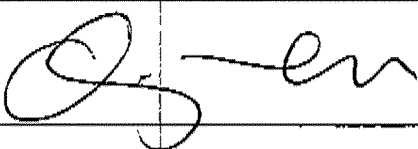
| | |
|---|---|
| TITLE OF INVENTION | METHOD FOR ACHIEVING SMOOTH SIDE WALLS AFTER BOSCH ETCH PROCESS |
| SIGNATURE OF INVENTOR AND NAME |  Jaroslaw W. Winniczek |
| RESIDENCE (CITY AND STATE) | Daly City, CA |
| DATE DECLARATION SIGNED | 5/9/12 |


| | |
|---|--|
| TITLE OF INVENTION | METHOD FOR ACHIEVING SMOOTH SIDE WALLS AFTER BOSCH ETCH PROCESS |
| SIGNATURE OF INVENTOR AND NAME |  Frank Y. Lin |
| RESIDENCE (CITY AND STATE) | Fremont, CA |
| DATE DECLARATION SIGNED | 5-4-2012 |

P2238US

Page 2

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|---|---|
| TITLE OF INVENTION | METHOD FOR ACHIEVING SMOOTH SIDE WALLS AFTER BOSCH ETCH PROCESS |
| SIGNATURE OF INVENTOR AND NAME |  5 Alan J. Miller |
| RESIDENCE (CITY AND STATE) | Moraga, CA |
| DATE DECLARATION SIGNED | 5/4/2012 |

| | |
|---|--|
| TITLE OF INVENTION | METHOD FOR ACHIEVING SMOOTH SIDE WALLS AFTER BOSCH ETCH PROCESS |
| SIGNATURE OF INVENTOR AND NAME |  Qing Xu |
| RESIDENCE (CITY AND STATE) | Fremont, CA |
| DATE DECLARATION SIGNED | 05/04/2012 |

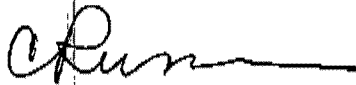
| | |
|---|--|
| TITLE OF INVENTION | METHOD FOR ACHIEVING SMOOTH SIDE WALLS AFTER BOSCH ETCH PROCESS |
| SIGNATURE OF INVENTOR AND NAME |  Seongjun Heo |
| RESIDENCE (CITY AND STATE) | Pleasanton, CA |
| DATE DECLARATION SIGNED | 5/07 /2012 |

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|---|--|
| TITLE OF INVENTION | METHOD FOR ACHIEVING SMOOTH SIDE WALLS AFTER BOSCH ETCH PROCESS |
| SIGNATURE OF INVENTOR AND NAME | Jin Hwan Ham |
| RESIDENCE (CITY AND STATE) | Seoul, Korea |
| DATE DECLARATION SIGNED | |

| | |
|---|--|
| TITLE OF INVENTION | METHOD FOR ACHIEVING SMOOTH SIDE WALLS AFTER BOSCH ETCH PROCESS |
| SIGNATURE OF INVENTOR AND NAME | Sang Joon Yoon |
| RESIDENCE (CITY AND STATE) | Gyeonggi-do, Korea |
| DATE DECLARATION SIGNED | |

| | |
|---|--|
| TITLE OF INVENTION | METHOD FOR ACHIEVING SMOOTH SIDE WALLS AFTER BOSCH ETCH PROCESS |
| SIGNATURE OF INVENTOR AND NAME |  Camelia Rusu |
| RESIDENCE (CITY AND STATE) | Pleasanton, CA |
| DATE DECLARATION SIGNED | 05/04/2012 |

After recording, return Assignment to:

Michael S. Brandt
Lam Research Corporation
4650 Cushing Parkway, CA-1
Fremont, CA 94538

PATENT
REEL: 028206 FRAME: 0820

Attorney Docket No.
P2238US

Serial No. 13/416,465

ASSIGNMENT

WHEREAS, I, the undersigned inventor (or one of the undersigned joint inventors), of residence as listed, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made, the said application having been executed on the date set forth below; and

WHEREAS, Lam Research Corporation, a corporation organized and existing under the laws of the State of Delaware, with a place of business at 4650 Cushing Parkway, Fremont, CA, 94538, is desirous of acquiring my entire right, title and interest in and to the said invention, and to the said application and any Letters Patent that may issue thereon;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell and assign to the said Lam Research Corporation, its successors and assigns, my entire right, title and interest in and to the said invention and in to the said application and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Commissioner of Patents and Trademarks to issue all patents for said invention, or patent resulting therefrom, insofar as my interest is concerned, to the said Lam Research Corporation, as assignee of my entire right, title and interest.

I also hereby sell and assign to Lam Research Corporation, its successors and assigns, my foreign rights to the invention disclosed in said application, in all countries of the world, including the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, and of the European Patent Convention, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

I hereby further agree that I will communicate to said Lam Research Corporation, or to its successors, assigns, and legal representatives, any facts known to me respecting said invention, and at the expense of said assignee company, testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, reissue and substitute applications, make all lawful oaths, and generally do everything possible to aid said Lam Research Corporation, its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries.

IN WITNESS WHEREOF, I hereunto set hand and seal this day and year;

| | |
|---|--|
| TITLE OF INVENTION | METHOD FOR ACHIEVING SMOOTH SIDE WALLS AFTER BOSCH ETCH PROCESS |
| SIGNATURE OF INVENTOR AND NAME | Jaroslav W. Winniczek |
| RESIDENCE (CITY AND STATE) | Daly City, CA |
| DATE DECLARATION SIGNED | |

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| TITLE OF INVENTION | METHOD FOR ACHIEVING SMOOTH SIDE WALLS AFTER BOSCH ETCH PROCESS |
| SIGNATURE OF INVENTOR AND NAME | Frank Y. Lin |
| RESIDENCE (CITY AND STATE) | Fremont, CA |
| DATE DECLARATION SIGNED | |

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| TITLE OF INVENTION | METHOD FOR ACHIEVING SMOOTH SIDE WALLS AFTER BOSCH ETCH PROCESS |
| SIGNATURE OF INVENTOR AND NAME | Alan J. Miller |
| RESIDENCE (CITY AND STATE) | Moraga, CA |
| DATE DECLARATION SIGNED | |

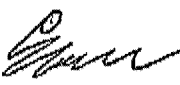
| | |
|---|--|
| TITLE OF INVENTION | METHOD FOR ACHIEVING SMOOTH SIDE WALLS AFTER BOSCH ETCH PROCESS |
| SIGNATURE OF INVENTOR AND NAME | Qing Xu |
| RESIDENCE (CITY AND STATE) | Fremont, CA |
| DATE DECLARATION SIGNED | |

| | |
|---|--|
| TITLE OF INVENTION | METHOD FOR ACHIEVING SMOOTH SIDE WALLS AFTER BOSCH ETCH PROCESS |
| SIGNATURE OF INVENTOR AND NAME | Seongjun Heo |
| RESIDENCE (CITY AND STATE) | Pleasanton, CA |
| DATE DECLARATION SIGNED | |

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Page 3

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| TITLE OF INVENTION | METHOD FOR ACHIEVING SMOOTH SIDE WALLS AFTER BOSCH ETCH PROCESS | |
| SIGNATURE OF INVENTOR AND NAME | Jin Hwan Ham  | |
| RESIDENCE (CITY AND STATE) | Seoul, Korea | |
| DATE DECLARATION SIGNED | 5/7/2012 | |

| | | |
|---|--|--|
| TITLE OF INVENTION | METHOD FOR ACHIEVING SMOOTH SIDE WALLS AFTER BOSCH ETCH PROCESS | |
| SIGNATURE OF INVENTOR AND NAME | Sang Joon Yoon  | |
| RESIDENCE (CITY AND STATE) | Gyeonggi-do, Korea | |
| DATE DECLARATION SIGNED | 5/7/2012 | |

| | | |
|---|--|--|
| TITLE OF INVENTION | METHOD FOR ACHIEVING SMOOTH SIDE WALLS AFTER BOSCH ETCH PROCESS | |
| SIGNATURE OF INVENTOR AND NAME | Camelia Rusu | |
| RESIDENCE (CITY AND STATE) | Pleasanton, CA | |
| DATE DECLARATION SIGNED | | |

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Michael S. Brandt
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4650 Cushing Parkway, CA-1
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