

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3184901

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
THORSTEN LILL	01/05/2015
IVAN L. BERRY III	12/12/2014
MEIHUA SHEN	12/12/2014
ALAN M. SCHOEPP	12/12/2014
DAVID J. HEMKER	12/12/2014
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	LAM RESEARCH CORPORATION
<b>Street Address:</b>	4650 CUSHING PARKWAY
<b>City:</b>	FREMONT
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	94538
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14589610
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Email:</b>	aromero@wavsip.com
<b>Correspondent Name:</b>	WEAVER AUSTIN VILLENEUVE AND SAMPSON LLP
<b>Address Line 1:</b>	P.O. BOX 70250
<b>Address Line 4:</b>	OAKLAND, CALIFORNIA 94612-0250
<b>ATTORNEY DOCKET NUMBER:</b>	LAMRP152US
<b>NAME OF SUBMITTER:</b>	ALEXA ROMERO
<b>SIGNATURE:</b>	/Alexa Romero/
<b>DATE SIGNED:</b>	01/15/2015
<b>Total Attachments: 5</b>	
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**PATENT**

**REEL: 034729 FRAME: 0093**

## ASSIGNMENT OF PATENT APPLICATION

Whereas I, an undersigned named inventor, possess the right, title and interest for and in the Invention(s) as set forth in the patent application entitled **ISOTROPIC ATOMIC LAYER ETCH FOR SILICON AND GERMANIUM OXIDES** (Atty. Docket No. LAMRP152US/3499-1US), and

(1) for which I have executed a U.S. patent application;

AND/OR

(2) the same having been filed on ( ) as Application No. ( );

OR

(3) which is a U.S. Provisional Patent Application filed on ( 14/589,610 ) as Application No. ( January 5, 2015 );

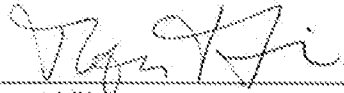
in connection with which I hereby authorize and request the assignee's attorneys associated with Customer Number 83422 to insert within the foregoing parentheses the filing date and/or Application No. of said application when known.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, an undersigned named inventor, hereby:

- 1) Sell, assign and transfer to **Lam Research Corporation**, a Delaware corporation having a place of business at 4650 Cushing Parkway, Fremont, CA 94538 ("ASSIGNEE"), the entire right, title and interest in the above-referenced application including any and all improvements and inventions disclosed therein, and in applications based upon, and patents (including foreign patents and the right to claim priority) granted upon, the above-referenced application.
- 2) Authorize and request the Commissioner of Patents to issue any and all Letters Patents resulting from said application or any division, continuation, substitute, renewal, re-examination or reissue thereof to the ASSIGNEE.
- 3) Agree to execute all papers and documents and, entirely at the ASSIGNEE's expense, perform any acts which are reasonably necessary in connection with the prosecution of said application, as well as any derivative applications thereof, foreign applications based thereon, and/or the enforcement of patents resulting from such applications.
- 4) Agree that the terms, covenants and conditions of this assignment shall inure to the benefit of the ASSIGNEE, its successors, assigns and other legal representative, and shall be binding upon the named inventor, as well as the named inventor's heirs, legal representatives and assigns.


5) Warrant and represent that I have not entered, and will not enter into any assignment, contract, or understanding that conflicts with this assignment.

Signed on the date indicated beside my signature.

- 1) Signature:  Date: 11/5/2015  
Typed Name: Thorsten Lill
- 2) Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Typed Name: Ivan L. Berry III
- 3) Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Typed Name: Meihua Shen
- 4) Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Typed Name: Alan M. Schoepp
- 5) Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Typed Name: David J. Hemker


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Signed on the date indicated beside my signature.

- 1) Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Typed Name: Thorsten Lill
- 2) Signature:  \_\_\_\_\_ Date: 12-Dec-14  
Typed Name: Ivan L. Berry III
- 3) Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Typed Name: Meihua Shen
- 4) Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Typed Name: Alan M. Schoepp
- 5) Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Typed Name: David J. Hemker

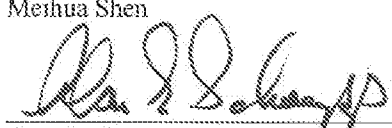
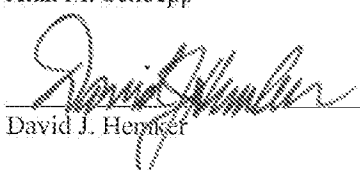
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Signed on the date indicated beside my signature.

- |    |   |                         |
|----|---|-------------------------|
| 1) | Signature: _____<br>Typed Name: Thorsten Lill   | Date: _____             |
| 2) | Signature: _____<br>Typed Name: Ivan L. Berry III   | Date: _____             |
| 3) | Signature: <br>Typed Name: Meihua Shen | Date: <u>12/12/2014</u> |
| 4) | Signature: _____<br>Typed Name: Alan M. Schoepp   | Date: _____             |
| 5) | Signature: _____<br>Typed Name: David J. Hemker   | Date: _____             |

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Typed Name: Ivan L. Berry III
- 3) Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Typed Name: Meihua Shen
- 4) Signature:  Date: 12/12/2014  
Typed Name: Alan M. Schoepp
- 5) Signature:  Date: December 12, 2014  
Typed Name: David J. Henner