503104813 12/17/2014

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3151420

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
WILLIAM T. LEE	11/14/2014

RECEIVING PARTY DATA

Name:	Lam Research Corporation	
Street Address:	4650 Cushing Parkway	
City:	FREMONT	
State/Country:	CALIFORNIA	
Postal Code:	94538	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14541542

CORRESPONDENCE DATA

Fax Number: (510)663-0920

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.

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ATTORNEY DOCKET NUMBER:	LAMRP149/3525-1US
NAME OF SUBMITTER:	LATONIA ERVIN
SIGNATURE:	/Latonia Ervin/
DATE SIGNED:	12/17/2014

Total Attachments: 1

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PATENT 503104813 REEL: 034527 FRAME: 0431

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: PLATED METAL HARD MASK FOR VERTICAL NAND HOLE ETCH (Atty. Docket No. LAMRP149/3525-1US), and for which I have executed a U.S. patent application; and the same having been filed on (November 14, 2014) as Application No. (14/541,542

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:

- 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.
- Agree to execute all papers and documents and, entirely at the ASSIGNEE's expense, perform 3) 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.
- Agree that the terms, covenants and conditions of this assignment shall inure to the benefit of the 4) 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.

Signature: 1)

RECORDED: 12/17/2014

Typed Name: William T. Lee

Date: 11/14/14