

## PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

EPAS ID: PAT2839501

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
SHIFANG LI	04/24/2014
JUNWEI BAO	02/10/2014
HANYOU CHU	05/01/2014
WEN JIN	02/10/2014
CHING-LING MENG	02/10/2014
WEIWEN XU	02/14/2014
PING WANG	04/20/2014
HOLGER TUITJE	02/10/2014
MIHAIL MIHAYLOV	02/10/2014
XINKANG TIAN	02/10/2014
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	TOKYO ELECTRON LIMITED
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<b>City:</b>	MINATO-KU, TOKYO
<b>State/Country:</b>	JAPAN
<b>Postal Code:</b>	107-6325
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	13945759
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(512)424-1040
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	5124241000
<b>Email:</b>	tehipdocket@us.tel.com
<b>Correspondent Name:</b>	TOKYO ELECTRON U.S. HOLDINGS, INC.
<b>Address Line 1:</b>	2400 GROVE BLVD.
<b>Address Line 4:</b>	AUSTIN, TEXAS 78741
<b>ATTORNEY DOCKET NUMBER:</b>	TTI-239

PATENT

<b>NAME OF SUBMITTER:</b>	ANDREJ MITROVIC
<b>SIGNATURE:</b>	/Andrej Mitrovic/
<b>DATE SIGNED:</b>	05/02/2014
<b>Total Attachments: 8</b> source=TTI-239_Completed_Assignment#page1.tif source=TTI-239_Completed_Assignment#page2.tif source=TTI-239_Completed_Assignment#page3.tif source=TTI-239_Completed_Assignment#page4.tif source=TTI-239_Completed_Assignment#page5.tif source=TTI-239_Completed_Assignment#page6.tif source=TTI-239_Completed_Assignment#page7.tif source=TTI-239_Completed_Assignment#page8.tif	

**DECLARATION (37 CFR 1.63) AND ASSIGNMENT FOR  
NONPROVISIONAL UTILITY OR DESIGN PATENT APPLICATION**

**Title of Invention: SYSTEM FOR IN-SITU FILM STACK MEASUREMENT DURING ETCHING  
AND ETCH CONTROL METHOD**

As a below named inventor, I hereby declare that:

This declaration and assignment is directed to:

☐ The attached application having a docket number and title identified above, or  
☒ United States application number or PCT international application number  
13/945,759 filed on July 18, 2013

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the above-identified application.

I have reviewed and understand the contents of the above-identified application, including the claims.

I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 C.F.R. § 1.56.

I hereby acknowledge that any willful false statement made in this Declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

**Assignor(s):** The Assignor(s) is/are the undersigned inventor(s). The inventor(s) named below has/have made certain inventions, improvements, and/or discoveries (herein referred to as the "Invention") disclosed in the above-identified patent application.


**Assignee:** The Assignee is **Tokyo Electron Limited**, a corporation of Japan having a place of business at Tokyo, Japan (herein referred to as the "ASSIGNEE"). The term "ASSIGNEE" used herein includes successors, legal representatives, and assigns of the ASSIGNEE. The ASSIGNEE desires to acquire the entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents obtained from the Invention.

As an undersigned inventor, I hereby assign to the ASSIGNEE my entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefrom in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, I hereby authorize and request the Director of the United States Patent and Trademark Office to issue any United States Patent, granted for the invention, to the ASSIGNEE, and I authorize and request foreign patent authorities to issue any foreign patent, granted for the Invention, to the ASSIGNEE. The entire worldwide right, title, and interest in and to the same to be held and enjoyed by the ASSIGNEE, to the full end of the terms for which any and all such patents may be granted, as fully and


entirely as would have been held and enjoyed by the undersigned had this Assignment not been made. I agree to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, for the ASSIGNEE, whenever requested by the ASSIGNEE.

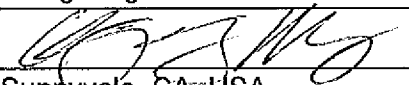
As an undersigned inventor, I acknowledge prior and ongoing obligations to sell, assign, and/or transfer my rights in the Invention to the ASSIGNEE. I have not sold, assigned, or otherwise transferred my rights in the Invention to another, and I am under no obligation to sell, assign, or otherwise transfer my rights in the Invention to another. I also hereby grant the ASSIGNEE, the right to insert in this Declaration and Assignment any further identification (including, but not limited to, patent application number and filing date) which may be necessary or desirable for recording this Declaration and Assignment.

(1) Legal name of Inventor: Shifang LI  
 Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Residence City/State/Country: Pleasanton, CA, USA  
 Mailing Address: 3357 Sagewood Court, : Pleasanton, CA 94588  
 Citizenship: \_\_\_\_\_

(2) Legal name of Inventor: Junwei BAO  
 Inventor's Signature:  Date: 2/10/2014  
 Residence City/State/Country: Los Altos, CA, USA  
 Mailing Address: 68 Pine Lane, Los Altos, CA 94022  
 Citizenship: China

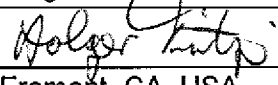
(3) Legal name of Inventor: Hanyou CHU  
 Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Residence City/State/Country: Palo Alto, CA, USA  
 Mailing Address: 4154 Frandon Court, Palo Alto, CA 94306  
 Citizenship: \_\_\_\_\_


(4) Legal name of Inventor: Wen JIN  
 Inventor's Signature:  Date: 2/10/2014  
 Residence City/State/Country: Fremont, CA, USA  
 Mailing Address: 215 Quinault Way, Fremont, CA 94539  
 Citizenship: China

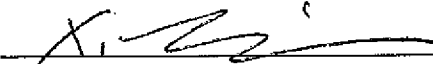
(5) Legal name of Inventor: Ching-Ling MENG  
Inventor's Signature:  Date: 2/10/14  
Residence City/State/Country: Sunnyvale, CA, USA  
Mailing Address: 982 Cascade Dr., Sunnyvale, CA 94087  
Citizenship: USA

(6) Legal name of Inventor: Weiwen XU  
Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Residence City/State/Country: Fremont, CA, USA  
Mailing Address: 3100 West Warren Avenue, Fremont CA 94538  
Citizenship: \_\_\_\_\_

(7) Legal name of Inventor: Ping WANG  
Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Residence City/State/Country: San Jose, CA, USA  
Mailing Address: 6979 Claywood Way, San Jose, CA 95210  
Citizenship: \_\_\_\_\_

(8) Legal name of Inventor: Holger TUTTJE  
Inventor's Signature:  Date: 2/10/2014  
Residence City/State/Country: Fremont, CA, USA  
Mailing Address: 4970 Seneca Park Loop, Fremont, CA 94538  
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(9) Legal name of Inventor: Mihail MIHAYLOV  
Inventor's Signature:  Date: 02/10/2014  
Residence City/State/Country: San Jose, CA, USA  
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Citizenship: USA

(10) Legal name of Inventor: Xinkang TIAN  
Inventor's Signature:  Date: 2/10/2014  
Residence City/State/Country: San Jose, CA, USA  
Mailing Address: 1554 Wheatley Place, San Jose, CA 95121  
Citizenship: U. S. A.

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 Inventor's Signature: *Shifang LI* Date: April 24, 2014  
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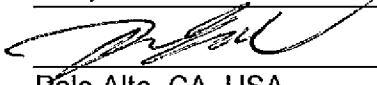
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(4) Legal name of Inventor: Wen JIN  
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 Residence City/State/Country: Fremont, CA, USA  
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 Citizenship: \_\_\_\_\_



(5) Legal name of Inventor: Ching-Ling MENG  
 Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
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(6) Legal name of Inventor: Weiwen XU  
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 Citizenship: Chinese 7649 Pleasanton, CA  
94566

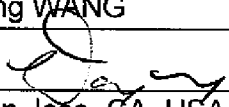
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(7) Legal name of Inventor: Ping WANG  
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 Citizenship: USA

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