## 503723409 03/05/2016 PATENT ASSIGNMENT COVER SHEET

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		NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT		
CONVEYING PARTY	ΑΤΑ			
		Name		Execution Date
YAN CHEN				03/02/2016
VI VUONG				03/02/2016
SERGUEI KOMAROV				03/02/2016
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State/Country:	JAPAN	JAPAN		
Postal Code:	107-63	25		
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Property Type		Number		
Application Number:		15053368		
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Application Number:	DATA			
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## ASSIGNMENT FOR NONPROVISIONAL UTILITY OR DESIGN PATENT APPLICATION

## Title of Invention: METHOD OF ENDPOINT DETECTION OF PLASMA ETCHING PROCESS USING MULTIVARIATE ANALYSIS

This 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

15/053368 filed on February 25, 2016

**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 Assignment any further identification (including, but not limited to, patent application number and filing date) which may be necessary or desirable for recording this Assignment.

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PATENT REEL: 037900 FRAME: 0270

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