

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
SIMON RUFFELL	07/14/2015
JOHN HAUTALA	07/14/2015
ADAM BRAND	07/24/2015
HUIXIONG DAI	07/20/2015
RECEIVING PARTY DATA	
Name:	VARIAN SEMICONDUCTOR EQUIPMENT ASSOCIATES, INC.
Street Address:	35 DORY ROAD
City:	GLOUCESTER
State/Country:	MASSACHUSETTS
Postal Code:	01930
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	17170351
CORRESPONDENCE DATA	
Fax Number:	
<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>	
Phone:	919-636-4767
Email:	docketing@kdbfirm.com, Jholland@kdbfirm.com
Correspondent Name:	KDB PLLC - VARIAN AND APPLIED MATERIALS
Address Line 1:	2601 WESTON PARKWAY
Address Line 2:	SUITE 103
Address Line 4:	CARY, NORTH CAROLINA 27513
ATTORNEY DOCKET NUMBER:	023023CD
NAME OF SUBMITTER:	JULIANNE HOLLAND
SIGNATURE:	/Julianne Holland/
DATE SIGNED:	02/08/2021
Total Attachments: 5	
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ASSIGNMENT

WHEREAS, the undersigned, to wit:

SIMON RUFFELL

JOHN HAUTALA

ADAM BRAND

HUIXIONG DAI

(Hereinafter collectively **ASSIGNOR**), have/has made a certain new and useful invention as set forth in an application for United States Letters Patent, entitled:

TECHNIQUES TO ENGINEER NANOSCALE PATTERNED FEATURES USING IONS

(X only one):

- (A) which was executed concurrently herewith and is being filed herewith in the United States Patent and Trademark Office;
- (B) which was executed on _____, 20___, and is being filed herewith in the United States Patent and Trademark Office;
- (C) which was filed as US Patent Application No. 14/749,822, filed on June 25, 2015

AND WHEREAS, Varian Semiconductor Equipment Associates, Inc., (hereinafter **ASSIGNEE**), a corporation organized and existing under the laws of the state of Delaware, and having its principal place of business at 35 Dory Road, Gloucester, Massachusetts, 01930, is desirous of acquiring the entire right, title, and interest in and to said invention and any and all patents that may be obtained therefore, and in and to said application and any and all patents that may issue therefrom;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, **ASSIGNOR** does hereby sell, assign, transfer, and set over unto said **ASSIGNEE**, its successors, assigns, and legal representatives, all right, title, and interest in and to said invention throughout the world, and any and all patents of the United States and foreign countries that may be obtained therefor, and in and to said application, including any and all continuations, continuations-in-part, divisionals, reissues, re-examinations, substitutions, and extensions thereof, and any and all patents of the United States and foreign countries that may issue therefrom, such right, title, and interest including the right to file applications and obtain patents, utility models, industrial models and designs for said invention in the name of said **ASSIGNEE**, its successors, assigns, and legal representatives throughout the world, including all rights of priority, all rights to publish cautionary notices reserving ownership of said invention, and all rights to register said invention in appropriate registries;

ASSIGNOR also does hereby covenant that it has the full right to convey the entire right, title, and interest herein assigned, and that it has not and will not execute any agreement in conflict herewith;

ASSIGNOR also does hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all Letters Patent of the United States on said invention or resulting from said application, including any continuations, continuations-in-part, divisions, reissues, re-examinations, substitutions, and extensions thereof, to said **ASSIGNEE**, its successors, assigns, and legal representatives as the **ASSIGNEE** of the entire right, title, and interest herein assigned;

ASSIGNOR also does hereby agree to, at any time, upon request, without further or additional consideration, but at the expense of said **ASSIGNEE**, its successors, assigns, or legal representatives, execute and deliver any and all papers, make all rightful oaths, and do all lawful acts that may be necessary or desirable to perfect the entire right, title, and interest here assigned in said **ASSIGNEE**, its successors, assigns, and legal representatives, and generally do everything possible to vest the entire right, title and interest herein assigned in said **ASSIGNEE**, its successors, assigns, and legal representatives;

ASSIGNOR also does hereby agree to, at any time, upon request, without further or additional consideration, but at the expense of said **ASSIGNEE**, its successors, assigns, or legal representatives, execute and deliver any and all papers, make all rightful oaths, and do all lawful acts that may be necessary or desirable to make application for and obtain any and all continuations, continuations-in-part, divisions, reissues, re-examinations, substitutions, and extensions of said application, or any application on said invention, or any patent issuing therefor or therefrom;

ASSIGNOR also does hereby agree to, at any time, upon request, without further or additional consideration but at the expense of said **ASSIGNEE**, its successors, assigns, and legal representatives, communicate to said **ASSIGNEE**, its successors, assigns, and legal representatives, any known facts relating to said invention or said application or any patent issuing therefor or therefrom, and testify as to the same in any interference or other litigation proceeding when requested to do so, and aid said **ASSIGNEE**, its successors, assigns, and legal representatives, in obtaining and enforcing property protection for said invention in all countries;

ASSIGNOR also does hereby grant the Legal Department of Varian Semiconductor Equipment Associates, Inc., at the address shown above, the power to insert on this assignment any further information, including, but not limited to application number(s) and filing date(s), which may be necessary or desirable in order to comply with any rule or request of the United States Patent and Trademark Office for the purposes of recording this document.

ASSIGNOR also does now hereby execute this document on the date(s) indicated below:

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 14 day of JULY, 2015.



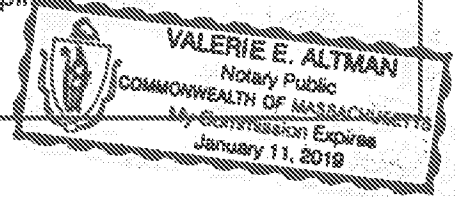
Name: Simon RUFFELL

COMMONWEALTH/STATE OF MASSACHUSETTS
COUNTY OF ESSEX

Before me, a Notary Public did personally appear the above-named Simon RUFFELL, personally known to me and/or proved to me on the basis of satisfactory evidence to be the person who signed and sealed the foregoing instrument and acknowledged the same to be his or her own free act and deed, this 14th day of July, 2015.

Valerie E. Altman
Notary Public

My Commission Expires:



IN WITNESS WHEREOF, I have hereunto set my hand and seal this 14 day of July, 2015.



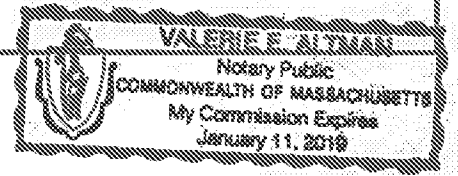
Name: John HAUTALA

COMMONWEALTH/STATE OF MASSACHUSETTS
COUNTY OF ESSEX

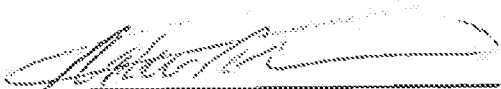
Before me, a Notary Public did personally appear the above-named John HAUTALA, personally known to me and/or proved to me on the basis of satisfactory evidence to be the person who signed and sealed the foregoing instrument and acknowledged the same to be his or her own free act and deed, this 14th day of July, 2015.

Valerie E. Altman
Notary Public

My Commission Expires:



IN WITNESS WHEREOF, I have hereunto set my hand and seal this 24 day of July 2015.
2015.



Name: Adam BRAND

COMMONWEALTH/STATE OF MASSACHUSETTS
COUNTY OF ESSEX

Before me, a Notary Public did personally appear the above-named Adam BRAND, personally known to me and/or proved to me on the basis of satisfactory evidence to be the person who signed and sealed the foregoing instrument and acknowledged the same to be his or her own free act and deed, this _____ day of _____, 2015.

My Commission Expires:

Notary Public

IN WITNESS WHEREOF, I have hereunto set my hand and seal this _____ day of _____, 2015.

Name: Huixiong DAI

COMMONWEALTH/STATE OF MASSACHUSETTS
COUNTY OF ESSEX

Before me, a Notary Public did personally appear the above-named Huixiong DAI, personally known to me and/or proved to me on the basis of satisfactory evidence to be the person who signed and sealed the foregoing instrument and acknowledged the same to be his or her own free act and deed, this _____ day of _____, 2015.

My Commission Expires:

Notary Public

IN WITNESS WHEREOF, I have hereunto set my hand and seal this _____ day of _____, 2015.

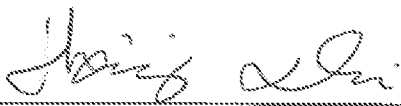
Name: Adam BRAND

COMMONWEALTH/STATE OF MASSACHUSETTS
COUNTY OF ESSEX

Before me, a Notary Public did personally appear the above-named Adam BRAND, personally known to me and/or proved to me on the basis of satisfactory evidence to be the person who signed and sealed the foregoing instrument and acknowledged the same to be his or her own free act and deed, this _____ day of _____, 2015.

Notary Public My Commission Expires:

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 20 day of July, 2015.



Name: Huixiong DAI

COMMONWEALTH/STATE OF MASSACHUSETTS
COUNTY OF ESSEX

Before me, a Notary Public did personally appear the above-named Huixiong DAI, personally known to me and/or proved to me on the basis of satisfactory evidence to be the person who signed and sealed the foregoing instrument and acknowledged the same to be his or her own free act and deed, this _____ day of _____, 2015.

Notary Public My Commission Expires: