

PATENT ASSIGNMENT

Electronic Version v1.1
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SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>WILLIAM T. LEVAY</td> <td>09/26/2013</td> </tr> <tr> <td>GEORGE M. GAMMEL</td> <td>09/27/2013</td> </tr> <tr> <td>BON-WOONG KOO</td> <td>09/25/2013</td> </tr> <tr> <td>BRANT S. BINNS</td> <td>09/26/2013</td> </tr> <tr> <td>RICHARD M. WHITE</td> <td>09/26/2013</td> </tr> </tbody> </table>		Name	Execution Date	WILLIAM T. LEVAY	09/26/2013	GEORGE M. GAMMEL	09/27/2013	BON-WOONG KOO	09/25/2013	BRANT S. BINNS	09/26/2013	RICHARD M. WHITE	09/26/2013
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RICHARD M. WHITE	09/26/2013												
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													
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>14033642</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	14033642								
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CORRESPONDENCE DATA													
Fax Number:	(508)898-2020												
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>													
Phone:	508-898-1818												
Email:	rob.frame@iplawboutique.com												
Correspondent Name:	NIELDS, LEMACK & FRAME, LLC												
Address Line 1:	176 E. MAIN STREET												
Address Line 2:	SUITE 5												
Address Line 4:	WESTBORO, MASSACHUSETTS 01581												
ATTORNEY DOCKET NUMBER:	2012-102												
NAME OF SUBMITTER:	ROBERT C. FRAME												

OP \$40.00 14033642

Signature:	/Robert C. Frame, Reg. No. 54,104/
Date:	10/03/2013
Total Attachments: 5 source=2012-102-Assignment-#page1.tif source=2012-102-Assignment-#page2.tif source=2012-102-Assignment-#page3.tif source=2012-102-Assignment-#page4.tif source=2012-102-Assignment-#page5.tif	

ASSIGNMENT

WHEREAS, the undersigned, to wit:

WILLIAM T. LEVAY: 303 Sandy Bay Terrace Rockport, MA 01966

GEORGE M. GAMMEL: 21 Leo Road Marblehead, MA 01945

BON-WOONG KOO: 41 Juniper Road Andover, MA 01810

BRANT S. BINNS: 51 Baker Avenue Beverly, MA 01915

RICHARD M. WHITE: 19 Doe Farm Lane Newmarket, NH 03857

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

Reducing Glitching In An Ion Implanter

(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 Appln. No. 14/033,642, filed on September 23, 2013.

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.

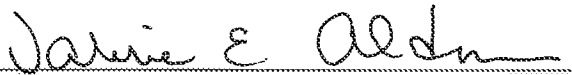
ASSIGNOR also does now hereby execute this document on the date(s) indicated below:

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 26th day of September, 2013.

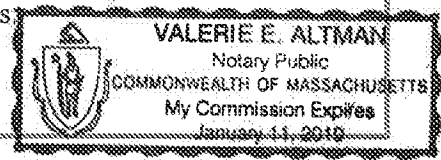

Name: WILLIAM T. LEVAY

COMMONWEALTH/STATE OF MASSACHUSETTS
COUNTY OF ESSEX

Before me, a Notary Public did personally appear the above-named William T. Levay 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 26th day of September, 2013.


Notary Public

My Commission Expires:

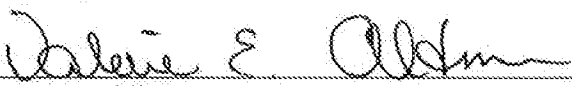


IN WITNESS WHEREOF, I have hereunto set my hand and seal this 27 day of Sept., 2013.

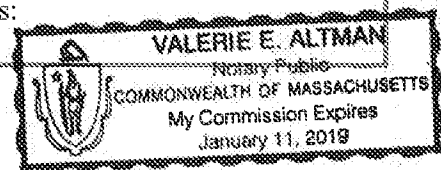

Name: GEORGE M. GAMMEL

COMMONWEALTH/STATE OF MASSACHUSETTS
COUNTY OF ESSEX

Before me, a Notary Public did personally appear the above-named George M. Gammel 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 27th day of September, 2013.


Notary Public

My Commission Expires:



IN WITNESS WHEREOF, I have hereunto set my hand and seal this 25 day of September, 2013.

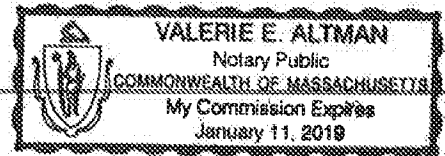
Koo Bonwoong
Name: **BON-WOONG KOO**

**COMMONWEALTH/STATE OF MASSACHUSETTS
COUNTY OF ESSEX**

Before me, a Notary Public did personally appear the above-named Bon-Woong Koo 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 25th day of September, 2013.

Valerie E. Aldman
Notary Public

My Commission Expires:



IN WITNESS WHEREOF, I have hereunto set my hand and seal this 26 day of September, 2013.

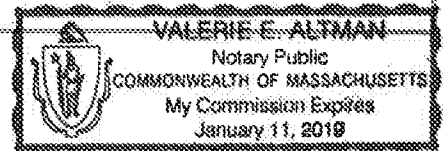
Brant S. Binns
Name: **BRANT S. BINNS**

**COMMONWEALTH/STATE OF MASSACHUSETTS
COUNTY OF ESSEX**

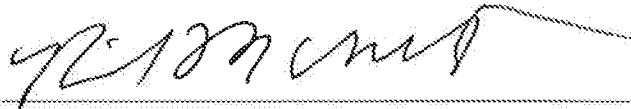
Before me, a Notary Public did personally appear the above-named Brant S. Binns personally known to me and/or proved to me on the basis of satisfactory evidence to be the person who signed and sealed the foregoing instrument and acknowledged the same to be his or her own free act and deed, this 26th day of September, 2013.

Valerie E. Aldman
Notary Public

My Commission Expires:



IN WITNESS WHEREOF, I have hereunto set my hand and seal this 26 day of September, 2013.



Name: RICHARD M. WHITE

COMMONWEALTH/STATE OF MASSACHUSETTS
COUNTY OF ESSEX

Before me, a Notary Public did personally appear the above-named Richard M. White 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 26th day of September, 2013.

Valerie E. Altman
Notary Public

My Commission Expires:

