

**PATENT ASSIGNMENT**

Electronic Version v1.1  
 Stylesheet Version v1.1

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
Russell John Low	03/30/2007
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	Varian Semiconductor Equipment Associates, Inc.
<b>Street Address:</b>	35 Dory Road
<b>City:</b>	Gloucester
<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	01930
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	11694304
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(202)778-2201
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
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<b>Correspondent Name:</b>	Hunton & Williams LLP
<b>Address Line 1:</b>	1900 K Street N.W
<b>Address Line 4:</b>	Washington, DISTRICT OF COLUMBIA 20006-1109
<b>ATTORNEY DOCKET NUMBER:</b>	64981.000073
<b>NAME OF SUBMITTER:</b>	Phillip D. Mancini
<b>Total Attachments: 5</b> source=Assignment64981000073#page1.tif source=Assignment64981000073#page2.tif source=Assignment64981000073#page3.tif source=Assignment64981000073#page4.tif source=Assignment64981000073#page5.tif	

CH \$40.00 11694304

**PATENT**

RECORDATION FORM COVER SHEET
PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached document(s) or new address(es) below.

1. Name of Conveying Party(ies):
Russell John Low

Additional name(s) of conveying party(ies) attached? [ ] Yes [X] No

2. Name and Address of Receiving Party(ies):

Name: Varian Semiconductor Equipment Associates, Inc.
Address: 35 Dory Road Gloucester, MA 01930
Country: U.S.

Name:
Address:
Country:

Additional name(s) and address(es) attached? [ ] Yes [X] No

3. Nature of Conveyance/Execution Date(s):

Execution Date(s) March 30, 2007

- [X] Assignment [ ] Merger
[ ] Security Agreement [ ] Change of Name
[ ] Joint Research Agreement
[ ] Government Interest Assignment
[ ] Executive Order 9424, Confirmatory License
[ ] Other:

4. Application or Patent Number(s): [X] This document is being filed together with a new application.

A. Patent Application No.(s): 11/694,304
B. Patent No.(s):

Additional numbers attached? [ ] Yes [X] No

5. Name and address to whom correspondence concerning document should be mailed:

Thomas E. Anderson
Intellectual Property Department
Hunton & Williams LLP
1900 K Street, N.W.; Suite 1200
Suite 1200
Washington, DC 20006-1109
(202) 955-1500 (telephone)
(202) 778-2201 (facsimile)

6. Total number of applications and patents involved:

Application(s): 1
+ Patent(s): 0
= Total: 1

7. Total Fee (37 CFR 1.21(h) & 3.41) \$ 40

- [X] Authorized to be charged to Deposit Account
[ ] Enclosed
[ ] None required (government interest not affecting title)

8. Payment Information

Deposit Account No.: 50-0206
[X] Charge any underpayment or credit any overpayment to above Deposit Account

9. Signature:

[Handwritten Signature]

Signature

March 30, 2007

Date

Phillip D. Mancini for Thomas E. Anderson

Name of Person Signing

Total number of pages including cover sheet, attachments, and document:

Five (9)

Patent Application  
 Attorney Docket No.: 64981.000073  
 Client Reference No.: 2006-048

ASSIGNMENT

WHEREAS, the undersigned, to wit:

(1) Russell John Low;

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

"TECHNIQUES FOR DETECTING ION BEAM CONTAMINATION IN AN ION IMPLANTATION SYSTEM AND INTERLOCKING SAME"

- (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 U.S. Patent Application No. 11/694,304 on March 30, 2007;

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, MA 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 therefor, 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,

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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 herein 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, divisionals, reissues, re-examinations, substitutions, or 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

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expense of said ASSIGNEE, its successors, assigns, or 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 proper protection for said invention in all countries;

ASSIGNOR also does hereby grant the firm of Hunton & Williams LLP of 1900 K Street, N.W., Washington, D.C., 20006-1109, or its agents, 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:

Patent Application  
Attorney Docket No.: 64981.000073  
Client Reference No.: 2006-048

(1) IN WITNESS WHEREOF, I have hereunto set my hand and seal  
this 30 day of March, 2007

Sign: R. J. Low  
Print Name: Russell John Low  
Print Address: 37 Hillside Street,  
Rowley, MA 01969

COMMONWEALTH/STATE OF Massachusetts  
COUNTY OF Essex

Before me, a Notary Public in and for the  
Commonwealth/State of Massachusetts did personally appear the  
above-named Russell Low, 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 30 day of March, 2007.

Sign: Rita G. Budrow  
Notary Public

My Commission Expires May 11, 2012

