

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Atul GUPTA</td> <td>10/05/2006</td> </tr> <tr> <td>Athony RENAU</td> <td>10/04/2006</td> </tr> <tr> <td>Donna L. SMATLAK</td> <td>10/05/2006</td> </tr> <tr> <td>Joseph C. OLSON</td> <td>10/19/2006</td> </tr> </tbody> </table>		Name	Execution Date	Atul GUPTA	10/05/2006	Athony RENAU	10/04/2006	Donna L. SMATLAK	10/05/2006	Joseph C. OLSON	10/19/2006
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Athony RENAU	10/04/2006										
Donna L. SMATLAK	10/05/2006										
Joseph C. OLSON	10/19/2006										
RECEIVING PARTY DATA											
Name:	Varian Semiconductor Equipment Associates, Inc.										
Street Address:	35 Dory Street										
City:	Glocester										
State/Country:	MASSACHUSETTS										
Postal Code:	01930										
PROPERTY NUMBERS Total: 1											
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>11537050</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	11537050						
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Application Number:	11537050										
CORRESPONDENCE DATA											
Fax Number:	(202)778-2201										
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>											
Phone:	202-955-1500										
Email:	andersont@hunton.com										
Correspondent Name:	Hunton & Williams LLP										
Address Line 1:	1900 K Street, NW										
Address Line 2:	Suite 1200										
Address Line 4:	Washington, DISTRICT OF COLUMBIA 20006										
ATTORNEY DOCKET NUMBER:	64981.000046										
NAME OF SUBMITTER:	Thomas E. Anderson										

CH \$40.00 11537050

Total Attachments: 8

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**RECORDATION FORM COVER SHEET
 PATENTS ONLY**

MAIL STOP ASSIGNMENT RECORDATION SERVICES
 Commissioner for Patents
 P.O. Box 1450
 Alexandria, VA 22313-1450

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):

- (1) Atul GUPTA
- (2) Anthony RENU
- (3) Donna L. SMATLAK
- (4) Joseph C. OLSON

Execution Date (1) 10/05/06 (2) 10/04/06 (3) 10/05/06 (4) 10/19/06

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

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

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

Country: USA

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

3. Nature of Conveyance:

- Assignment Merger Change of Name Security Agreement
- Government Interest Assignment Executive Order 9424, Confirmatory License
- Other: _____

4. Application or patent number(s):

This document is being filed together with a new application.

A. Patent Application No(s): 11/537,050
 B. Patent No(s):

Others on additional sheet(s) attached? Yes 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
 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): _____
 = Total: 1

7. Total Fee (37 CFR 1.21(h) & 3.41) \$40.00

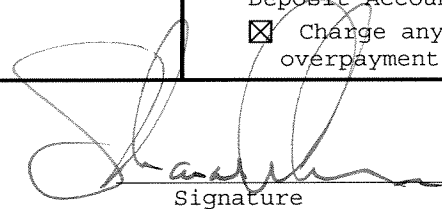
- Authorized to be charged to Deposit Account
- Enclosed
- None required (government interest not affecting title)

8. Payment Information

Deposit Account No.: 50-0206
 Change any underpayment or credit any overpayment to above Deposit Account

9. Signature

Thomas E. Anderson, Reg. No. 37,063
 Name of Person Signing


 Signature

October 25, 2006
 Date

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

8

ASSIGNMENT

WHEREAS, the undersigned, to wit:

- (1) Atul GUPTA;
- (2) Anthony RENAU;
- (3) Donna L. SMATLAK; and
- (4) Joseph C. OLSON

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

**"TECHNIQUE FOR IMPROVING ION IMPLANTATION THROUGHPUT
AND DOSE UNIFORMITY"**

- (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) X which was filed as U.S. Patent Application No. 11/537,050 on September 29, 2006;

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, 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 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:

(1) IN WITNESS WHEREOF, I have hereunto set my hand and seal
this 5 day of OCTOBER, 2006.

Sign: Atul Gupta
Print Name: Atul GUPTA
Print Address: 4 Arbella Drive
Beverly, MA 01915

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 Atul GUPTA, 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 5 day of
October, 2006.

Sign: Rita G Budrow
Notary Public

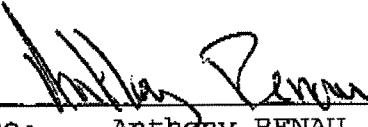
My Commission Expires: May 11, 2012



RITA G. BUDROW
Notary Public
Commonwealth of Massachusetts
My Commission Expires
May 11, 2012

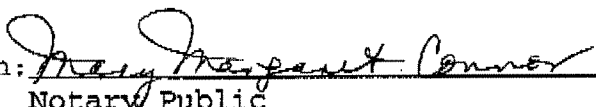
Patent Application
Client Reference No.: 2005-050
Attorney Docket No.: 64981.000046

(2) IN WITNESS WHEREOF, I have hereunto set my hand and seal
this 4th day of October, 2006.

Sign: 
Print Name: Anthony RENAU
Print Address: 323 Main Street
West Newbury, MA 01985

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 Anthony RENAU, 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 4th day of
October, 2006.

Sign: 
Notary Public
My Commission Expires: 4/21/2011

Patent Application
Client Reference No.: 2005-050
Attorney Docket No.: 64981.000046

(3) IN WITNESS WHEREOF, I have hereunto set my hand and seal
this 5th day of OCTOBER, 2006.

Sign: Donna L. Smatlak
Print Name: Donna SMATLAK
Print Address: 10 Village Hill Road
Belmont, MA 02178

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 Donna L. SMATLAK, 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 5th day of OCTOBER 2006.

Sign: Frank Caramella
Notary Public

My Commission Expires: 4/26/2013



Patent Application
Client Reference No.: 2005-050
Attorney Docket No.: 64981.000046

(4) IN WITNESS WHEREOF, I have hereunto set my hand and seal
this 19th day of October, 2006.

Sign: Joseph C. Olson
Print Name: Joseph C. Olson
Print Address: 5 Meeting Place Circle
Beverly, MA 01915

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 Joseph C. Olson, 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 19 day of October, 2006.

Sign: Rita G. Budrow
Notary Public

My Commission Expires May 11, 2012



RITA G. BUDROW
Notary Public
Commonwealth of Massachusetts
My Commission Expires
May 11, 2012