

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
James S. Buff	12/18/2008
Svetlana Radovanov	12/18/2008
Bon-Woong Koo	12/18/2008
Wilhelm Platow	01/12/2009
Frank Sinclair	01/01/2009
D. Jeffrey Lischer	01/12/2009
Craig R. Chaney	12/18/2008
Steven Borichevsky	12/18/2008
Eric R. Cobb	01/13/2009
Mayur Jagtap	01/13/2009
Kenneth H. Purser	02/05/2009
Victor M. Benveniste	12/18/2008
Shardul Patel	01/20/2009

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:	12370555

CORRESPONDENCE DATA

Fax Number: (202)778-2201
Correspondence will be sent via US Mail when the fax attempt is unsuccessful.
 Phone: 202-419-2055

CH \$40.00 12370555

Email: sloftis@hunton.com
Correspondent Name: HUNTON & WILLIAMS LLP/VARIAN SEMICONDUCT
Address Line 1: INTELLECTUAL PROPERTY DEPARTMENT
Address Line 2: 1900 K STREET, N.W., SUITE 1200
Address Line 4: WASHINGTON, DISTRICT OF COLUMBIA 20006-1109

ATTORNEY DOCKET NUMBER:

64981.000114

NAME OF SUBMITTER:

Thomas E. Anderson

Total Attachments: 16

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ASSIGNMENT

WHEREAS, the undersigned, to wit:

- ✓(1) James Buff
- ✓(2) Svetlana Radovanov
- ✓(3) Bon-Woong Koo
- (4) Wilhelm Platow
- (5) Frank Sinclair
- (6) Jeff Lischer
- ✓(7) Craig Chaney
- ✓(8) Steven Borichevsky
- (9) Eric Cobb
- (10) Mayur Jagtap
- (11) Kenneth Purser
- (12) Victor Benveniste
- (13) Shardul Patel

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

**"TECHNIQUES FOR IMPROVING EXTRACTED ION BEAM QUALITY
USING HIGH-TRANSPARENCY ELECTRODES"**

- (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. _____ on _____;

AND WHEREAS, Varian Semiconductor Equipment Associates, Inc. (hereinafter ASSIGNEE), a corporation organized and existing under the laws of the Commonwealth/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;

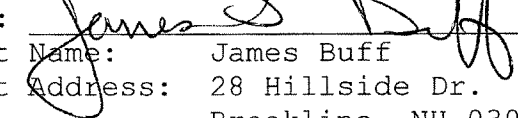
ASSIGNOR also does hereby agree to, at any time, upon request, without further or additional consideration but at the expense of said ASSIGNEE, its successors, assigns, or legal representatives, execute and deliver any and all papers, make all rightful oaths, and do all lawful acts that may be necessary 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.

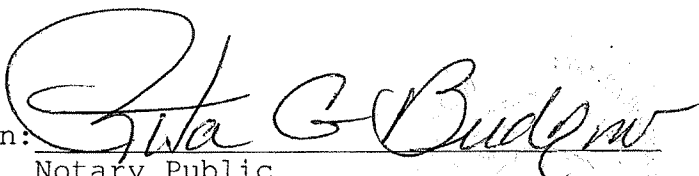
ASSIGNOR also does now hereby execute this document on the date(s) indicated below:

(1) IN WITNESS WHEREOF, I have hereunto set my hand and seal
this 18 day of December, 2008.

Sign: 
Print Name: James Buff
Print Address: 28 Hillside Dr.
Brookline, NH 03033

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 Jim Buff, 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 18 day of
December, 2008.

Sign: 
Notary Public

My Commission Expires: May 11, 2012

(2) IN WITNESS WHEREOF, I have hereunto set my hand and seal
this 18th day of December, 2008.

Sign: Svetlana Radovanov
Print Name: Svetlana Radovanov
Print Address: 218 Pleasant St.
Marblehead, MA 01945

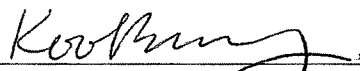
COMMONWEALTH/STATE OF Massachusetts
COUNTY OF Essex

Before me, a Notary Public in and for the
Commonwealth/State of Massachusetts, did personally appear the
above-named Svetlana Radovanov, 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 18th day of December, 2008.

Sign: Rita G. Budzino
Notary Public

My Commission Expires: May 11, 2012

(3) IN WITNESS WHEREOF, I have hereunto set my hand and seal
this 18th day of December, 2008.

Sign: 
Print Name: Bon-Woong Koo
Print Address: 41 Juniper Road
Andover, MA 01810

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 John 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 18th day of
December, 2008.

Sign: 
Notary Public

My Commission Expires: May 11, 2012

Patent Application
Attorney Docket No.: 64981.000114
Client Reference No.: 2008-065

(4) IN WITNESS WHEREOF, I have hereunto set my hand and seal
this 12 day of January, ~~2008~~. 2009 *cto*

Sign: *W. Platow*
Print Name: Wilhelm Platow
Print Address: 156 Summer Street
Sommerville, MA 02143

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 Wilhelm Platow, 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 12th day of
January, ~~2008~~. 2009.

Sign: *Constance S. Ouellette*
Notary Public

My Commission Expires:

Constance S. Ouellette
Notary Public
Commonwealth of Massachusetts
My Commission Expires: October 10, 2014

(5) IN WITNESS WHEREOF, I have hereunto set my hand and seal
this 1 day of January, 2009.

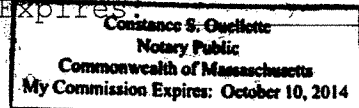
Sign: Frank Sinclair
Print Name: Frank Sinclair
Print Address: 14 Royal Street
Quincy, MA 02170

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 Frank Sinclair, 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 13th day of
January, 2009.

Sign: Constance S. Ouellette
Notary Public

My Commission Expires:



(6) IN WITNESS WHEREOF, I have hereunto set my hand and seal
this 12th day of January, 2009.

Sign: D. Jeffrey Lischer
Print Name: D. Jeffrey X Lischer
Print Address: 46 Hosmer Street
Acton, MA 01720

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 Jeffrey D. Lischer, 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 12th day of January, 2009.

Sign: Constance S. Ouellette
Notary Public

My Commission Expires:

Constance S. Ouellette
Notary Public
Commonwealth of Massachusetts
My Commission Expires: October 10, 2014

(7) IN WITNESS WHEREOF, I have hereunto set my hand and seal
this 18 day of Dec, 2008.

Sign: Craig R. Chaney
Print Name: Craig R. Chaney
Print Address: 170 Thatcher Road,
Rockport, MA 01966

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 Craig Chaney, 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 18 day of
December, 2008.

Sign: Sita G. Budzior
Notary Public

My Commission Expires: May 11, 2012

(8) IN WITNESS WHEREOF, I have hereunto set my hand and seal
this 18 day of December, 2008.

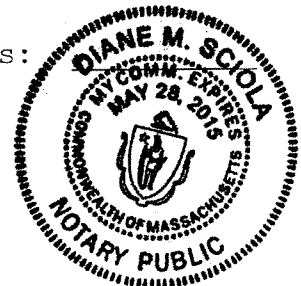
Sign: *Steven Borichevsky*
Print Name: Steven Borichevsky
Print Address: 28 Fort Square Apt 2
Gloucester, MA 01930

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 Steven Borichevsky, 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 18 day of December, 2008.

Sign: *Diane M. Sciola*
Notary Public

My Commission Expires:



(9) IN WITNESS WHEREOF, I have hereunto set my hand and seal
this 13 day of JANUARY, 2009.

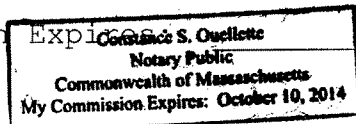
Sign: Eric R Cobb
Print Name: Eric R. Cobb
Print Address: 3 Clark Street,
Danvers, MA 01923

COMMONWEALTH/STATE OF MASSACHUSETTS
COUNTY OF Essex

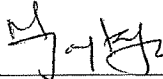
Before me, a Notary Public in and for the
Commonwealth/State of MASSACHUSETTS, did personally appear the
above-named Eric Cobb, personally known to me and/or proved to
me on the basis of satisfactory evidence to be the person who
signed and sealed the foregoing instrument and acknowledged the
same to be his or her own free act and deed, this 13th day of
January, 2009.

Sign: Constance S. Ouellette
Notary Public

My Commission Expires



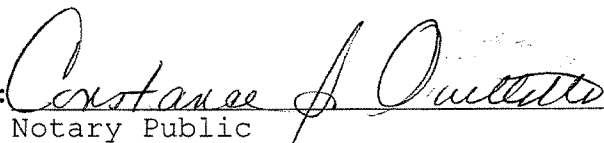
(10) IN WITNESS WHEREOF, I have hereunto set my hand and seal
this 13th day of January, 2009.

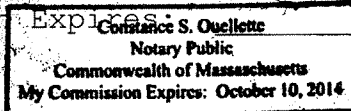
Sign: 
Print Name: Mayur Jagtap
Print Address: 19 Cresthaven Dr.
Burlington, MA 01803

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 Mayur Jagtap, 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 13th day of
January, 2009.

Sign: 
Notary Public

My Commission Expires 

(11) IN WITNESS WHEREOF, I have hereunto set my hand and seal
this 5th day of February, 2009.

Sign: Kenneth H. Purser
Print Name: Kenneth Purser
Print Address: ~~360 N. Emerson Rd.~~
~~Lexington, MA 02420~~
49 Hedge Road
Gloucester, MA 01930
ceo

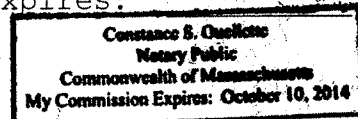
COMMONWEALTH/STATE OF Massachusetts

COUNTY OF Essex

Before me, a Notary Public in and for the
Commonwealth/State of Massachusetts, did personally appear the
above-named Ken Purser, 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
February, 2009.

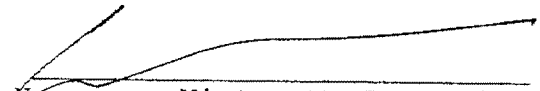
Sign: Constance S. Ouellette
Notary Public

My Commission Expires:



Patent Application
Attorney Docket No.: 64981.000114
Client Reference No.: 2008-065

(12) IN WITNESS WHEREOF, I have hereunto set my hand and seal
this 18 day of December, 2008.

Sign: 
Print Name: Victor M. Benveniste
Print Address: 508 Keasey ave.
Lyle, WA 98635


COMMONWEALTH/STATE OF _____

COUNTY OF _____

Before me, a Notary Public in and for the
Commonwealth/State of _____, did personally appear the
above-named Victor M. Benveniste, 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 _____, 20__.

Sign: _____
Notary Public
My Commission Expires: _____

(13) IN WITNESS WHEREOF, I have hereunto set my hand and seal
this 20th day of January, 2009.

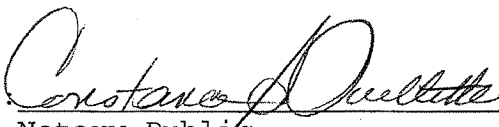
Sign: 
Print Name: Shardul Patel
Print Address: ~~3 Kimball Court,~~
~~Apt. 214~~
~~Weburn, MA 01801~~

*c/o 109 Lowell Rd., Apt. 208
North Reading, MA 01864*

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 **Shardul Patel**, 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 20th day of
January, 2009.

Sign: 
Notary Public

My Commission Expires

Constance S. Ouellette Notary Public Commonwealth of Massachusetts My Commission Expires: October 10, 2014
