PATENT ASSIGNMENT

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SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Atul Gupta	03/29/2007

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:	11693308

CORRESPONDENCE DATA

Fax Number: (202)778-2201

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

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Address Line 2: Suite 1200

Address Line 4: Washington, DISTRICT OF COLUMBIA 20006

ATTORNEY DOCKET NUMBER: 64981.000076

NAME OF SUBMITTER: Thomas E. Anderson

Total Attachments: 4

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PATENT REEL: 019093 FRAME: 0089

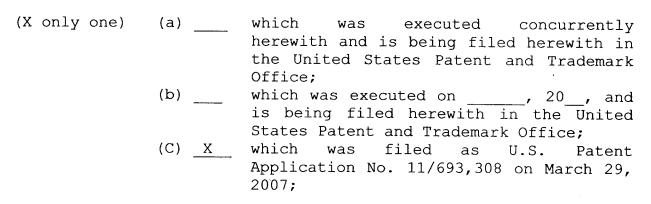
ASSIGNMENT

WHEREAS, the undersigned, to wit:

(1) Atul Gupta

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

"TECHNIQUES FOR IMPROVING THE PERFORMANCE AND EXTENDING THE LIFETIME OF AN ION SOURCE WITH GAS MIXING"



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 ASSIGNEE, assigns, its successors, and 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, reexaminations, 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, reexaminations, 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:

(1) IN WITNESS WHEREOF, I have hereunto set my hand and seal this 29 day of MARCH, 2007.

Sign: Atul

Print Name: Atul Gupta

Print Address: 4 Arbella Drive Beverly, MA 01915

COMMONWEALTH/STATE OF Massachuseths

COUNTY OF <u>ESSEX</u>

Before me, a Notary Public in and for the Commonwealth/State of hassands did personally appear the above-named has 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 29 day of harch, 2001.

Notary Public

My Commission Expires:

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

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