ors, 2 t 0-1595 (Rev. 09/04) OMB No. 0651-0027 (exp. 6/30/2005) 12 - 0	U.S. Department of COMMERCE United States Patent and Trademark Office
To the Director of the U.S. Patents ar.	
10016 birector of the 0.3.7 atents at 1031;	30280 cuments or the new address(es) below.
1. Name of conveying party(ies): Steven T. Covle	O Name and address of the Array
Michael R. Scheinfein 11/10/05 William J. Devore 11/15/05	Name: APPLIED MATERIALS, INC.
Additional name of conveying party(ies) attached? ☐ Yes ☒ No	2
3. Nature of conveyance:	
Execution Date(s) <u>5ee above</u>	Street Address: P.O. Box 450-A
☐ Security Agreement ☐ Change of Name	City: Santa Clara
Government Interest Assignment	
☐ Executive Order 9424, Confirmatory License	State: CA
☐ Other	Country: USA Zip: 95052
	Additional Name(s) & address(es) attached? ☐ Yes ⊠ No
4. Application number(s) or patent number(s):	
A. Patent Application No.(s)	B. Patent No.(s)
A. Patent Application No.(s) Additional numbers at the second seco	B. Patent No.(s)
A. Patent Application No.(s) Additional numbers at the second of party to whom correspondence concerning this document should be mailed:	B. Patent No.(s) tached? Yes No 6. Total number of applications and patents involved: 1
A. Patent Application No.(s) Additional numbers at the second of the se	B. Patent No.(s) tached? Yes No 6. Total number of applications and patents involved: 1 7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00
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A. Patent Application No.(s) Additional numbers att 5. Name and address of party to whom correspondence concerning this document should be mailed: Name: Applied Materials Inc Internal Address: Patent Counsel Street Address: P.O. Box 450-A	B. Patent No.(s) tached? Yes No 6. Total number of applications and patents involved: 1 7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00 Authorized to be charged by credit card Authorized to be charged to deposit account
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A. Patent Application No.(s) Additional numbers att 5. Name and address of party to whom correspondence concerning this document should be mailed: Name: Applied Materials Inc Internal Address: Patent Counsel Street Address: P.O. Box 450-A City: Santa Clara State: CA Zip: 95052	B. Patent No.(s) tached? Yes No 6. Total number of applications and patents involved: 1 7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00 Authorized to be charged by credit card Authorized to be charged to deposit account Enclosed None required (government interest not affecting title)
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A. Patent Application No.(s) Additional numbers att 5. Name and address of party to whom correspondence concerning this document should be mailed: Name: Applied Materials Inc Internal Address: Patent Counsel Street Address: P.O. Box 450-A City: Santa Clara State: CA Phone Number: 713-623-4844 Fax Number: 713-623-4846	B. Patent No.(s) tached? Yes No 6. Total number of applications and patents involved: 1 7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00 Authorized to be charged by credit card Authorized to be charged to deposit account Enclosed None required (government interest not affecting title) 8. Payment Information a. Credit Card Last 4 Numbers Expiration Date
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401938_1

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses of Inventors:

1)	STEVEN T. COYLE 1049 Fair Oaks Ave. Alameda, CA 94501	2)	MICHAEL R. SCHEINFEIN 12350 NW Maple Hill Lane Portland, OR 97229
3)	WILLIAM J. DEVORE 22828 Kings Court Hayward, CA 94541		

(hereinafter referred to as Assignors), have invented a certain invention entitled:

ELECTRON BEAM SOURCE FOR USE IN ELECTRON GUN

enclosed herewith or for which States was filed on	n application for Letters Patent in the United, 2005
under Serial Noand	, executed on even date herewith

WHEREAS, Applied Materials, Inc., a corporation of the State of Delaware, having a place of business at 3050 Bowers Avenue, Santa Clara, California 95054 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as Invention), and in and to all embodiments of the Invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been received in full from said Assignee:

1. Said Assignors hereby sell, assign, transfer and convey to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Property or said Invention in any and all countries and groups of countries, Patents granted on said Invention filed and each and every Patent granted on including each and every Application filed and each and every Patent granted on

PATENT REEL: 017289 FRAME: 0792 any application which is a conventional, division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

- Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting conventional, substitute, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefor and any Patents granted without limitation opposition proceedings. includina proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.
- 3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.
- 4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1)	[1-14-05 (DATE)	STEVEN I. COYLE
2)	(DATE)	MICHAEL R. SCHEINFEIN
3)	(DATE)	WILLIAM J. DEVORE

401940 1

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses of Inventors:

1)	STEVEN T. COYLE 1049 Fair Oaks Ave. Alameda, CA 94501	2)	MICHAEL R. SCHEINFEIN 12350 NW Maple Hill Lane Portland, OR 97229
3)	WILLIAM J. DEVORE 22828 Kings Court Hayward, CA 94541		

(hereinafter referred to as Assignors), have invented a certain invention entitled:

ELECTRON BEAM SOURCE FOR USE IN ELECTRON GUN

	enclosed herewith was filed on	or for which	• •	for Letter 2005	rs Patent	in the	e United
and	under Serial No		, •	executed o	on even	date h	nerewith;

WHEREAS, Applied Materials, Inc., a corporation of the State of Delaware, having a place of business at 3050 Bowers Avenue, Santa Clara, California 95054 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as Invention), and in and to all embodiments of the Invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been received in full from said Assignee:

1. Said Assignors hereby sell, assign, transfer and convey to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Property or said Invention in any and all countries and groups of countries, Patents granted on said Invention filed and each and every Patent granted on including each and every Application filed and each and every Patent granted on

1 of 2 PATENT REEL: 017289 FRAME: 0794 any application which is a conventional, division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

- Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting conventional, substitute, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefor and any Patents granted includina without limitation opposition proceedings. cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.
- 3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.
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IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1)	(DATE)	STEVENT COVIE
2)	16 N 0 0 5 (DATE)	STEVEN T. COYLE MICHAEL R. SCHEINFEIN
3)	(DATE)	WILLIAM J. DEVORE

401940_1

PATENT REEL: 017289 FRAME: 0795

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses of Inventors:

1)	STEVEN T. COYLE 1049 Fair Oaks Ave. Alameda, CA 94501	2)	MICHAEL R. SCHEINFEIN 12350 NW Maple Hill Lane Portland, OR 97229
3)	W ILLIAM J. DEVORE 22828 Kings Court Hayward, CA 94541		

(hereinafter referred to as Assignors), have invented a certain invention entitled:

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	enclosed herewith was filed on		for Letters 2005	Patent in	n the	United
and	under Serial No.	 	executed on	ı even da	ite he	erewith;

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1 of 2

PATENT REEL: 017289 FRAME: 0796 any application which is a conventional, division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

- 2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting conventional, substitute, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefor and any Patents granted thereon. including without limitation opposition proceedings. proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.
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- 4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1)	(DATE)	STEVEN T. COYLE
2)	(DATE)	MICHAEL R. SCHEINFEIN
3)	15 Nov- 05 (DATE)	William J. De Vore WILLIAM J. DEVORE

401940_1