

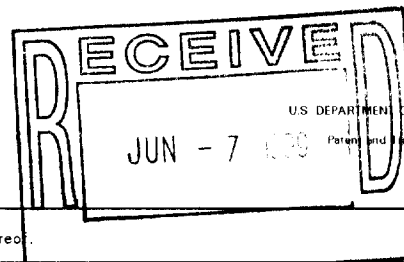
06-09-1999



101057338

RECORDATION FORM COVER SHEET

PATENTS ONLY



To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

WJ Semiconductor Equipment Group, Inc.

☐ Individual(s)☐ Association☐ General☐ Limited

Partnership

Partnership

☒ Corporation - State California☐ Other _____

Additional name(s) of conveying

party(ies) attached? ☐ Yes ☒ No

6-7-99

3. Nature of Conveyance:

☒ Assignment☐ Merger☐ Security Agreement☐ Change of Name☐ Other _____Execution Date: June 3, 1999

2. Name and address of receiving party(ies):

Name: Semiconductor Equipment Group, LLC.

Internal Address: _____

Street Address: 440 Kings Village RoadCity: Scotts ValleyState: CAZip: 95066☐ Individual(s) citizenship _____☐ Association _____☐ General Partnership _____☐ Limited Partnership _____☐ Corporation - State _____☒ Other Limited Liability Corporation of the State of DelawareIf assignee is, not domiciled in the U.S. a domestic representative designation is attached: ☐ Yes ☐ No

(Designation must be a separate document from Assignment)

Additional name(s) & address(es) attached?

☐ Yes ☒ No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

06/907,503	09/113,823	09/067,704
07/238,826	08/800,106	09/113,730
07/798,829	08/976,928	07/370,331
07/991,500	08/573,318	07/661,837
08/329,772	08/599,092	07/856,457
07/601,261	08/679,864	
08/191,091	09/019,349	
08/191,093	08/823,655	
08/542,279	08/746,608	
08/237,691	08/796,300	
08/512,346	08/838,882	
08/276,815	09/019,342	
08/869,085	09/018,021	
08/892,469	09/185,180	

B. Patent No.(s)

4,845,054	5,668,063
4,834,022	5,786,278
4,673,799	5,855,957
4,834,020	5,849,088
4,787,813	4,993,358
4,891,247	5,059,770
5,088,773	5,232,145
5,136,975	5,122,391
5,113,789	
5,078,922	
5,029,471	
5,377,300	
5,304,398	
5,683,516	

Additional numbers attached? ☐ Yes ☒ No

06/09/1999 DNGUYEN 00000110 06907503

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PATENT
REEL: 009968 FRAME: 0765

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

Name: Maria S. Swiatek

Internal Address: FLEHR HOHBACH TEST

ALBRITTON & HERBERT LLP

Street Address: SUITE 3400

FOUR EMBARCADERO CENTER

City: SAN FRANCISCO

State: CA

Zip: 94111-4187

6. Total number of applications and patents involved: 55

7. Total fee (37 CFR 3.41):.....\$ 2,200.00

☒ Enclosed

☐ Authorized to be charged to deposit account

8. Deposit account number: 06-1300

Please debit any underpayment or credit any overpayment to the above deposit account.

Our Order No. A-63687-8/AJT/MSS

(Attach duplicate of this page if paying by deposit account)

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9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Maria S. Swiatek, Reg. No. 37,244

Name of Person Signing


Signature

June 4, 1999

Date

Total number of pages including cover sheet, attachments and document: [20]

OMB No. 0651-0011 (exp. 4/94)

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File No. G-63687-8/AJT/MSS

134297

Rev. 8/93

**ASSIGNMENT OF PATENTS, PATENT APPLICATIONS
AND INVENTION DISCLOSURES**

WHEREAS, WJ SEMICONDUCTOR EQUIPMENT GROUP, INC. ("WJ SEG"), a California Corporation, is now the sole owner of the entire right, title and interest in and to inventions covered by the United States and Foreign Letters Patents ("Patents"), patent applications ("Patent Applications") and invention disclosures ("Invention Disclosures") listed in Schedule A, attached hereto and hereby made a part hereof; and

WHEREAS, SEMICONDUCTOR EQUIPMENT GROUP, LLC. ("SEG LLC"), a Delaware Limited Liability Corporation, is desirous of acquiring all rights WJ SEG has or may have, including the entire right, title and interest in and to the aforesaid United States and Foreign Letters Patents, Patent Applications and Invention Disclosures, and the inventions disclosed therein; and

WHEREAS, the parties have entered into a Contribution and Assumption Agreement dated June 2, 1999 ("Agreement"), and WJ SEG has agreed to transfer and assign to SEG LLC the aforesaid United States and Foreign Letters Patents, Patent Applications, and Invention Disclosures, and the inventions disclosed therein;

NOW, THEREFORE, for good and valuable consideration acknowledged by WJ SEG to have been received in full from SEG LLC:

WJ SEG does hereby sell, assign, transfer and set over unto SEG LLC, its successor and assigns, the entire right, title and interest in and to the inventions and the Patents, Patent Applications and Invention Disclosures listed in Schedule A, and any and all right WJ SEG has or may have in inventions thereon, including without limitation, the right of priority to file corresponding applications in any and all countries, the rights to any divisions, continuations, continuations in part, reissues and extensions with respect thereto and all claims for damages for past infringement thereof and the right to sue and collect such damages, including the rights to file and obtain Letters Patent or divisions, continuations, reissues or extensions thereof, for said inventions in the United States and any and all countries foreign thereto; the said inventions, Patents, Patent Applications and Invention Disclosures to be held by SEG LLC for its own use and enjoyment and for the use and enjoyment of its successors and assigns as fully and entirely as they would have been held and enjoyed by WJ SEG had such assignment and sale not been made.

WJ SEG hereby authorizes and requests the duly authorized officials of the United States and foreign countries concerned to take such action as may be required to give effect to the sale, assignment and transfer made herein, including the issuance to SEG LLC, its successors and assigns, of the full and undivided interest of WJ SEG in and to any United States and foreign Letters Patent for any invention to which SEG LLC is entitled by virtue hereof, for the sole use and benefit of SEG LLC, its successor and assigns; and WJ SEG agrees to do all things reasonably necessary to effectuate such sale, assignment and transfer in respect to each such patent and invention.

Executed at Palo Alto, California this 3rd day of June, 1999.

WJSEMICONDUCTOREQUIPMENTGROUP, INC.

By: Claudia D. Kelly
Claudia D. Kelly
Corporate Secretary

State of California)
) ss.
County of Santa Clara)

On this 3rd day of June, in the year 1999, before me, Christine Berndtson, Notary Public of the State of California in the County of Santa Clara, personally appeared Claudia D. Kelly, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged that he/she executed the same in his/her authorized capacity(ies), and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Signature Christine Berndtson

(Seal)



SCHEDULE "A" - PATENTS

Flehr Reference No.			Title/Inventors	Serial No./ Filing Date	Patent No./ Issue Date	Foreign Countries	
A	16178	6	AJT	LOW TEMPERATURE CHEMICAL VAPOR DEPOSITION OF SILICON DIOXIDE	07/068,727 06/29/87	4,845,054 07/04/89	
FA	16178	6-JP	AJT	LOW TEMPERATURE CHEMICAL VAPOR DEPOSITION OF SILICON DIOXIDE FILMS	61-137340 06/14/86	2134184 12/26/97	Japan
A	16178	7	AJT	CVD REACTOR AND GAS INJECTION SYSTEM	07/044,326 10/27/87	4,834,022 05/30/89	
FA	16178	7-JP	AJT	CVD REACTOR AND GAS INJECTION SYSTEM	61-165449 07/14/86	2076448 08/09/96	Japan
A	16178	8	AJT	FLUIDIZED BED HEATER FOR SEMICONDUCTOR PROCESSING	707262 03/01/85	4,673,799 06/16/87	
A	40356		AJT	RAPID INFRARED CURING OF PHENOL PHENOLIC, EPOXY AND OTHER RESINS; Alley, Kurita, ET AL.	Closed *		
A	44048		AJT	ATMOSPHERIC PRESSURE CHEMICAL VAPOR DEPOSITION APPARATUS AND METHOD/Bartholomew	07/128,806 12/04/87	4,834,020 05/30/89	
FA	44048	JP	AJT	ATMOSPHERIC PRESSURE CHEMICAL VAPOR DEPOSITION APPARATUS AND METHOD; Bartholomew	63-307653 12/05/88		Japan
FA	44048	KR	AJT	ATMOSPHERIC PRESSURE CHEMICAL VAPOR DEPOSITION APPARATUS AND METHOD; Bartholomew	Closed *		Korea
A	44153		AJT	INDUSTRIAL ROBOT FOR USE IN CLEAN ROOM; Stevens	07/089,591 08/26/87	4,787,813 11/29/88 Abandoned per non-pmt of MFEE **	

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A	44521		AJT	METHOD FOR IMPROVING STEP COVERAGE OF DIELECTRIC IN VLSI CIRCUITS; Shamshoian	06/907,503 09/15/86		
A	44521	1	AJT	METHOD FOR IMPROVING THE STEP COVERAGE OF DIELECTRIC IN VLSI CIRCUITS/ Shamshoian	07/214,909 06/29/88	4,891,247 01/02/90	
FA	44521	1-JP	AJT	BOROSILICATE GLASS FILMS FOR MULTILEVEL METALLIZATION STRUCTURES IN SEMICONDUCTOR DEVICES AND METHOD	62-231991 09/16/87	Abandoned per client letter 12/08/93 **	Japan
FE	44521	1	AJT	METHOD FOR IMPROVING THE STEP COVERAGE OF DIELECTRIC IN VLSI CIRCUITS	Closed *		
A	47444		AJT MSS	CHEMICAL VAPOR DEPOSITION USING DYED SILANE; Gralenski	07/238,826 08/31/88	Abandoned in favor of 07/798,829 (A-47444-1) **	
FA	47444	DE	AJT MSS	CHEMICAL VAPOR DEPOSITION USING DISILANE; Gralenski	P3928765.3 08/30/89	Abandoned **	Germany
FA	47444	KR	AJT MSS	CHEMICAL VAPOR DEPOSITION USING DISILANE; Gralenski	12472/89 08/31/89	Abandoned **	Korea
FA	47444	JP	AJT MSS	CHEMICAL VAPOR DEPOSITION USING DISILANE; Gralenski	01-226366 08/31/89	Abandoned per client letter 05/18/96 **	Japan
FA	47444	GB	AJT MSS	PROCESSES USING DISILANE; Gralenski	8919291.8 08/24/89	2222416 03/03/93	United Kingdom
FE	47444	EP	AJT MSS	CHEMICAL VAPOR DEPOSITION USING DYED SILANE; Gralenski	Closed *		Europe
FP	47444	PC	AJT MSS	CHEMICAL VAPOR DEPOSITION USING DYED SILANE; Gralenski	Closed *		PCT
A	47444	1	AJT MSS	CHEMICAL VAPOR DEPOSITION USING DISILANE; Gralenski	07/798,829 11/22/91	Abandoned in favor of 07/991,500 ** (A-47444-2)	
A	47444	2	AJT MSS	CHEMICAL VAPOR DEPOSITION USING DISILANE; Gralenski	07/991,500 12/17/92	Abandoned in favor of 08/329,772 (A-47444-3) **	

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A	47444	3	AJT MSS	CHEMICAL VAPOR DEPOSITION USING DISILANE; Gralenski	08/329,772 10/27/94	Abandoned per client ltr 09/14/98 **	
A	52244		AJT	ELECTRICALLY INSULATED PIPE COUPLING APPARATUS; Gralenski	07/570,122 08/17/90	5,088,773 02/18/92	
A	52353		AJT WSG	INJECTOR AND METHOD FOR DELIVERING GASEOUS CHEMICALS TO A SURFACE/ Bartholomew	07/542,243 06/21/90	5,136,975 08/11/92	
A	52354		AJT WSG	SELF CLEANING ORIFICE; Kamian	07/513,807 04/24/90	5,113,789 05/19/92	
FA	52354	KR	AJT WSG	SELF CLEANING FLOW CONTROL ORIFICE; Kamian	14708/90 09/18/90		Korea
FA	52354	JP	AJT WSG	SELF CLEANING FLOW CONTROL ORIFICE; Kamian	2-216935 08/17/90		Japan
FA	52354	TW	AJT WSG	SELF CLEANING FLOW CONTROL ORIFICE; Kamian	79106834 08/15/90	51810 02/14/92	Taiwan
FE	52354	DE	AJT WSG	SELF CLEANING FLOW CONTROL ORIFICE; Kamian	90307398.9 07/06/90	69017007 02/15/95	Germany
FE	52354	ES	AJT WSG	SELF CLEANING FLOW CONTROL ORIFICE; Kamian	90307398.9 07/06/90	453679 02/15/95 Abandoned **	Spain
FE	52354	FR	AJT WSG	SELF CLEANING FLOW CONTROL ORIFICE; Kamian	90307398.9 07/06/90	453679 02/15/95	France
FE	52354	GB	AJT WSG	SELF CLEANING FLOW CONTROL ORIFICE; Kamian	90307398.9 07/06/90	453679 02/15/95	United Kingdom
FE	52354	GR	AJT WSG	SELF CLEANING FLOW CONTROL ORIFICE; Kamian	90307398.9 07/06/90	453679 02/15/95 Abandoned **	Greece
FE	52354	IT	AJT WSG	SELF CLEANING FLOW CONTROL ORIFICE; Kamian	90307398.9 07/06/90	453679 02/15/95	Italy
FE	52354	BE	AJT	SELF CLEANING FLOW CONTROL ORIFICE; Kamian	90307398.9 07/06/90	453679 02/15/95 Abandoned **	Belgium

FE	52354	CH	AJT WSG	SELF CLEANING FLOW CONTROL ORIFICE; Kamian	90307398.9 07/06/90	453679 02/15/95	Switzerland
FE	52354	EP	AJT WSG	SELF CLEANING FLOW CONTROL ORIFICE; Kamian	90307398.9 07/06/90	453679 02/15/95	Europe
FE	52354	LU	AJT WSG	SELF CLEANING FLOW CONTROL ORIFICE; Kamian	90307398.9 07/06/90	453679 02/15/95	Luxembourg
FE	52354	NL	AJT WSG	SELF CLEANING FLOW CONTROL ORIFICE; Kamian	90307398.9 07/06/90	453679 02/15/95	Netherlands
FE	52354	SE	AJT WSG	SELF CLEANING FLOW CONTROL ORIFICE; Kamian	90307398.9 07/06/90	453679 02/15/95	Sweden
FE	52354	DK	AJT WSG	SELF CLEANING FLOW CONTROL ORIFICE; Kamian	90307398.9 07/06/90	453679 02/15/95 Abandoned **	Denmark
FE	52354	AT	AJT	SELF CLEANING FLOW CONTROL ORIFICE; Kamian	90307398.9 07/06/90	453679 02/15/95 Abandoned **	Austria
A	53835		AJT JEM	U-SHAPED HEATER LINES; Walker	07/601,261 10/22/90	Abandoned 08/19/92 **	
FA	53835	KR	AJT	U-SHAPED HEATER LINES; Walker	3-274072 10/22/91	Abandoned 08/19/92 **	Korea
FA	53835	JP	AJT	U-SHAPED HEATER LINES; Walker	3-274072 10/22/91	Abandoned 08/19/92 **	Japan
FE	53835	EP	AJT	HEATED FLUID SUPPLY LINE; Walker	91309735.8 10/22/91	Abandoned **	Europe
A	53836		AJT	LIQUID SOURCE BUBBLER; Richie	07/601,270 10/22/90	5,078,922 01/07/92	
FA	53836	JP	AJT	LIQUID SOURCE BUBBLER; Richie	3-274069 10/22/91	1929857 05/12/95	Japan
FA	53836	KR	AJT MSS	LIQUID SOURCE BUBBLER; Richie	18592/91 10/22/91		Korea
FE	53836	EP	AJT	LIQUID SOURCE BUBBLER; Richie	91309736.6 10/22/91	Abandoned **	Europe

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A	53837		AJT	X-RAY TUBE INCLUDING FLUID X-RAY SOURCE; Gralenski	Closed *		
A	53859		AJT	LIQUID LEVEL SENSOR ASSEMBLY; Goodrich	07/601,408 10/23/90	5,029,471 07/09/91	
FA	53859	JP	AJT	LIQUID LEVEL SENSOR ASSEMBLY; Goodrich	3-275317 10/23/91	1903072 02/08/95	Japan
FA	53859	KR	AJT MSS	LIQUID LEVEL SENSOR ASSEMBLY; Goodrich	18633-91 10/23/91		Korea
FE	53859	EP	AJT	LIQUID LEVEL SENSOR ASSEMBLY; Goodrich	91309743.2 10/22/91	Abandoned **	Europe
A	53860		AJT	VAPOR DELIVERY SYSTEM	Closed *		
A	53861		AJT	CHEMICAL REFILL SYSTEM	Closed *		
A	56598		AJT	HEATER FOR PROCESSING GASES; Collins	07/971,490 11/04/92	5,377,300 12/27/94	
FA	56598	JP	AJT	GAS HEATER FOR PROCESSING GASES; Collins	6-511396 11/03/93	Abandoned 04/21/98 per client **	Japan
FA	56598	KR	AJT	GAS HEATER FOR PROCESSING GASES; Collins	701790/95 11/03/93	163256 09/04/98	Korea
FE	56598	EP	AJT	GAS HEATER FOR PROCESSING GASES; Collins	94900500.3 11/03/93	0666972 01/07/99	Europe
FE	56598	HK	AJT	GAS HEATER FOR PROCESSING GASES; Collins	98114622.0 12/22/98		Hong Kong
FE	56598	DE	AJT	GAS HEATER FOR PROCESSING GASES; Collins	94900500.3 11/03/93	0666972 01/07/99	Germany
FE	56598	FR	AJT	GAS HEATER FOR PROCESSING GASES; Collins	94900500.3 11/03/93	0666972 01/07/99	France
FE	56598	GB	AJT	GAS HEATER FOR PROCESSING GASES; Collins	94900500.3 11/03/93	0666972 01/07/99	Great Britain
FE	56598	IT	AJT	GAS HEATER FOR PROCESSING GASES; Collins	94900500.3 11/03/93	0666972 01/07/99	Italy

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FP	56598	PC	AJT	GAS HEATER FOR PROCESSING GASES; Collins	PCT/US93/10532 11/03/93	Closed **	PCT
A	57727		AJT	BPSG STABILITY ENHANCING CAP LAYER; Engdahl	Closed *		
A	57728		AJT	OZONE PRETREATMENT FOR IMPROVED VIA RESISTANCE; Curtis	Closed *		
A	58019		AJT	CHEMICAL VAPOR DEPOSITION OF SILICON DIOXIDE USING HEXAMETHYLDISILAZANE; Krusell	08/071,516 06/03/93	5,304,398 04/19/94	
FP	58019	PC	AJT	CHEMICAL VAPOR DEPOSITION OF SILICON DIOXIDE FROM HEXAMETHYLDISILAZANE AND OZONE/OXYGEN; Krusell		Abandoned *	PCT
A	59071		AJT	A THIN FILM SEMICONDUCTOR DEVICE AND METHOD; Harada	08/191,091 02/03/94	Abandoned **	
FP	59071	PC	AJT	A THIN FILM SEMICONDUCTOR DEVICE AND METHOD; Harada	PCT/US94/01352 02/04/94	Abandoned **	PCT
A	59072		AJT	METHOD OF MANUFACTURING A GLASS SUBSTRATE FOR A THIN FILM; Harada	08/191,093 02/03/94	Abandoned in favor of FWC 08/542,279 (A-59072-1) **	
FP	59072	PC	AJT	METHOD OF MANUFACTURING A GLASS SUBSTRATE FOR A THIN FILM; Harada	PCT/US94/01278 02/04/94	Abandoned **	PCT
A	59072	1	AJT MSS	METHOD OF MANUFACTURING A GLASS SUBSTRATE FOR A THIN FILM; Harada	08/542,279 10/12/95	Abandoned **	
A	59073		AJT MSS	METHOD OF MANUFACTURING SIDE WALLS AND SEMICONDUCTOR DEVICE HAVING SIDE WALLS; Harada, Hattori	08/237,691 05/04/94	Abandoned in favor of FWC 08/512,346 (A-59073-1) **	
FP	59073	PC	AJT MSS	METHOD OF MANUFACTURING SIDE WALLS AND SEMICONDUCTOR WITH SIDE WALLS; Harada, Hattori	PCT/US94/05315 05/13/94	Abandoned **	PCT
A	59073	1	AJT MSS	METHOD OF MANUFACTURING SIDE WALLS AND SEMICONDUCTOR DEVICE HAVING SIDE WALLS; Harada, Hattori	08/512,346 08/08/95 FWC of 08/237,691 Filed 05/04/94	Abandon per Client 10/08/97 **	

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A	59425	AJT	TRIETHOXY SILANE (TRIES) AS A PRECURSOR FOR THE DEPOSITION OF SiO ₂ ; Schmidt	Closed *		
A	59471	AJT MSS	SINGLE BODY INJECTOR AND METHOD FOR DELIVERING GASES TO A SURFACE; Dedontney	08/276,815 07/18/94	Abandoned in favor of FWC 08/621,772 (A-59471-1) **	
FA	59471	AJT MSS	SINGLE BODY INJECTOR FOR DELIVERING GASES TO A SURFACE; Dedontney	20958/95 07/18/95		Korea
FA	59471	AJT MSS	SINGLE BODY INJECTOR FOR DELIVERING GASES TO A SURFACE; Dedontney	84100288 01/13/95		Taiwan
FA	59471	AJT MSS	SINGLE BODY INJECTOR FOR DELIVERING GASES TO A SURFACE; Dedontney	7-181702 07/18/95	2790437 06/12/98	Japan
FE	59471	AJT MSS	SINGLE BODY INJECTOR	98111870.5 11/09/98		Hong Kong
FE	59471	AJT MSS	SINGLE BODY INJECTOR FOR DELIVERING GASES TO A SURFACE; Dedontney	95304783.4 07/10/95		Europe
A	59471	AJT MSS	SINGLE BODY INJECTOR AND METHOD FOR DELIVERING GASES TO A SURFACE; Dedontney, Gralenski, Miller	08/621,772 03/22/96 FWC of 08/276,815 Filed 07/18/94	5,683,516 11/04/97	
A	59471	AJT MSS	METHOD OF MANUFACTURING AN INJECTOR FOR CHEMICAL VAPOR DEPOSITION PROCESSING; Dedontney, Gralenski, Miller	08/869,085 06/04/97 Div. of 08/276,815 Filed 07/18/94		
A	59471	AJT MSS	SINGLE BODY INJECTOR FOR DELIVERING GASES TO A SURFACE/Miller, Dobkin	08/892,469 07/14/97 CIP of 08/621,772; which is an FWC of 08/276,815		
FA	59471	AJT MSS	SINGLE BODY INJECTOR FOR DELIVERING GASES TO A SURFACE/Miller, Dobkin	87111447 07/14/98		Taiwan

A	59471	4	AJT MSS	SINGLE BODY INJECTOR AND DEPOSITION CHAMBER/Miller, Dobkin	09/113,823 07/10/98 CIP of 08/892,469; which is a CIP of 08/621,772; which is an FWC of 08/276,815		
FP	59471	4-PC	AJT MSS	SINGLE BODY INJECTOR AND DEPOSITION CHAMBER/Miller, et al.	PCT/US98/14393 07/10/98	PCT	
A	60164		AJT MSS	METHOD OF FORMING A PLANAR LAYER OF MATERIAL; Fry, Lightfoot, Lomond	08/447,809 05/23/95	5,668,063 09/16/97	
FA	60164	KR	AJT MSS	METHOD OF PLANARIZING A LAYER OF MATERIAL; Fry, Lightfoot, Lomond	708269/97 05/06/96		South Korea
FA	60164	JP	AJT MSS	METHOD OF PLANARIZING A LAYER OF MATERIAL; Fry, Lightfoot, Lomond	8-535689 05/06/96		Japan
FE	60164	EP	AJT MSS	METHOD OF PLANARIZING A LAYER OF MATERIAL; Fry, Lightfoot, Lomond	96914585.3 05/06/96		Europe
FP	60164	PC	AJT MSS	METHOD OF PLANARIZING A LAYER OF MATERIAL; Fry, Lightfoot, Lomond	PCT/US96/06375 05/06/96	Closed **	PCT
A	62201		AJT MSS	STRESS RELIEF OF APCVD OXIDE FILMS; Fry	08/704,227 08/27/96	5,786,278 07/28/98	
A	62732		AJT JEM	NITROGEN SHIELD; Van Tran	08/800,106 02/13/97	Abandoned in favor of FWC 08/976,928 (A-62732-1) **	
A	62732	1	AJT JEM	PROTECTIVE GAS SHIELD FOR CHEMICAL VAPOR DEPOSITION APPARATUS	08/976,928 11/24/97		
A	62732	2	AJT JEM	PROTECTIVE GAS SHIELD FOR CHEMICAL VAPOR DEPOSITION APPARATUS	Closed *		
A	62786		AJT MSS	METHOD OF FORMING DIELECTRIC FILMS WITH REDUCED METAL CONTAMINATION; Carvalho	08/573,318 12/15/95	Abandoned in favor of 08/599,092 (A-62786-1) **	

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PATENT

REEL: 009968 FRAME: 0776

A	62786	1	AJT MSS	METHOD OF FORMING DIELECTRIC FILMS WITH REDUCED METAL CONTAMINATION; Carvalho	08/599,092 02/07/96 CIP of 08/573,318 Filed 12/15/95	Abandoned **	
FA	62786	1-CN	AJT MSS	METHOD OF FORMING DIELECTRIC FILMS WITH REDUCED METAL CONTAMINATION; Carvalho	96198872.X 12/11/96		China
FA	62786	1-JP	AJT MSS	METHOD OF FORMING DIELECTRIC FILMS WITH REDUCED METAL CONTAMINATION; Carvalho	9-522910 12/11/96		Japan
FA	62786	1-KR	AJT MSS	METHOD OF FORMING DIELECTRIC FILMS WITH REDUCED METAL CONTAMINATION; Carvalho	704363/98 12/11/96		Korea
FA	62786	1-SG	AJT MSS	METHOD OF FORMING DIELECTRIC FILMS WITH REDUCED METAL CONTAMINATION; Carvalho	9802389-8 12/11/96		Singapore
FA	62786	1-TW	AJT MSS	METHOD OF FORMING DIELECTRIC FILMS WITH REDUCED METAL CONTAMINATION; Carvalho	85109526 08/06/96	088844 12/13/97	Taiwan
FE	62786	1-EP	AJT MSS	METHOD OF FORMING DIELECTRIC FILMS WITH REDUCED METAL CONTAMINATION; Carvalho	96943723.5 12/11/96		Europe
FE	62786	1-HK	AJT MSS	METHOD OF FORMING DIELECTRIC FILMS WITH REDUCED METAL CONTAMINATION; Carvalho	99100518.5 02/08/99		Hong Kong
FP	62786	1-PC	AJT MSS	METHOD OF FORMING DIELECTRIC FILMS WITH REDUCED METAL CONTAMINATION; Carvalho	PCT/US96/19819 12/11/96	Closed **	PCT
A	62998		AJT MSS	DIELECTRIC PLANARIZATION TECHNIQUE WITH IMPROVED RELIABILITY; Eakin	Closed *		
A	63007		AJT JEM	METHOD OF IMPROVING DEPOSITION THICKNESS CONTROL IN AN APCVD REACTOR; Yuan	Hold *		

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A	63008		AJT JEM	OPTIMIZING OF SiO ₂ FILM CONFORMALITY IN ATMOSPHERIC PRESSURE CHEMICAL VAPOR DEPOSITION	08/801,997 02/18/97	5,855,957 01/05/99	
FA	63008	TW	AJT JEM	OPTIMIZING SiO ₂ FILM CONFORMALITY IN TEOS/03 APCVD	87012245 02/18/98		Taiwan
FP	63008	PC	AJT JEM MSS	OPTIMIZATION OF SiO ₂ FILM CONFORMALITY IN ATMOSPHERIC PRESSURE CHEMICAL VAPOR DEPOSITION	PCT/US98/02842 02/17/98		PCT
A	63265		AJT MSS	LOW K DIELECTRICS PREPARED FROM CROSS-LINKED PPXS (CL-PPXS); Lee	08/679,864 07/16/96		
FP	63265	PC	AJT MSS	CROSSLINKED AROMATIC POLYMERS SA LOW ϵ DIELECTRIC; Lee	PCT/US97/10575 07/14/97	Abandoned per client **	PCT
A	63347		AJT MSS	A METHOD OF PLANARIZING A DIELECTRIC LAYER WITH REDUCED HYDROGEN DIFFUSION; Eakin	Closed *		
A	63579		AJT MSS	LOW k DIELECTRICS PREPARED FROM PECVD AND PACVD OF SELECTED SILOXANES; Lee	Hold *		
A	63660		AJT JEM	HIGH TEMPERATURE ROLLER MODULE; Kleiner	09/019,349 02/05/98		
A	63661		AJT MSS	METHOD FOR FORMING VERTICALLY EXTENDED EMBEDDED LOW K MATERIALS; Fry	Hold *		
A	63662		AJT	OPTIMIZATION OF SiO ₂ FILM CONFORMITY	Hold *		
A	63665		AJT MSS	METHOD OF CONTAMINATION REDUCTION BY FORMATION OF ALL OXIDE SURFACE LAYERS; Bailey, Brady	08/823,655 03/11/97		
FA	63665	TW	AJT MSS	METHOD OF CONTAMINATION REDUCTION BY FORMATION OF ALL OXIDE SURFACE LAYERS; Bailey, Brady	87102978 03/02/98		Taiwan
FP	63665	PC	AJT MSS	METHOD OF CONTAMINATION REDUCTION BY FORMATION OF ALL OXIDE SURFACE LAYERS; Bailey, Brady	PCT/US98/04570 03/06/98		PCT

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A	63669	AJT MSS	FLANGE CLAMP; Mateos, Kamian	08/746,608 11/13/96	Abandon per client letter 09/08/98 **	
FP	63669	AJT MSS	FLANGE CLAMP; Mateos, Kamian	PCT/US97/20315 11/06/97	Abandon per client letter 10/29/98 **	PCT
A	63672	AJT JEM	LINEAR INJECTOR WITH VACUUM COMPATIBILITY; Moshtagh, Leksell, Herman, Ellul	Closed *		
A	63673	AJT JEM MSS	DIRECT DRIVE ROTATIONAL MOTOR WITH AXIAL VACUUM/Moshtagh	08/796,300 02/07/97		
A	63674	AJT MSS	INJECTION SEAL; Miller, Veeck	Hold *		
A	63675	AJT JEM	VENT ASSEMBLY; Moshtagh	08/838,882 04/14/97		
A	63676	AJT JEM	THERMAL CONDITIONING TOWER; Kleiner	09/019,342 02/05/98		
A	63677	AJT MSS	MONOBLOCK INJECTION MODIFICATION; Moshtagh	Hold *		
A	64309	AJT MSS	NITRIC OXIDE COMPOUND CONDENSER; Granados	Hold *		
A	64725	AJT MSS	NITROGEN DILUENT GAS FREE OPERATION OF FLAT PLATE DISCHARGE CELL OZONE GENERATORS; Granados	Hold *		
A	64873	AJT MSS	WAFER CARRIER; Yao, Bailey	09/018,021 02/02/98		
FP	64873	AJT MSS	WAFER CARRIER; Yao, Bailey	PCT/US99/02100 02/01/99		PCT
FA	64873	AJT MSS	WAFER CARRIER; Yao, Bailey	88100719 01/18/99		Taiwan
A	65583	AJT JEM MSS	FREE FLOATING SHIELD/DeDontney, et al.	09/008,024 01/16/98	5,849,088 12/15/98	

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A	65583	1	AJT MSS	FREE FLOATING SHIELD AND SEMICONDUCTOR PROCESSING SYSTEM/Bartholomew, et al.	09/185,180 11/03/98		
FA	65583	1-TW	AJT MSS	FREE FLOATING SHIELD AND SEMICONDUCTOR PROCESSING SYSTEM/Bartholomew, et al.	87/119658 11/26/98		Taiwan
FP	65583	1-PC	AJT MSS	FREE FLOATING SHIELD AND SEMICONDUCTOR PROCESSING SYSTEM/Bartholomew, et al.	PCT/US98/25740 12/04/98		PCT
A	65816		AJT MSS	CYCLOPHANE DERIVATIVES CONTAINING CROSS-LINKING GROUPS/Golden	Hold *		
A	65965		AJT MSS	LOW K DIELECTRIC INORGANIC/ORGANIC HYBRID FILMS AND METHOD OF MAKING/Rose; Lopata; Felts	09/067,704 04/28/98		
A	66484		AJT MSS	CHEMICAL VAPOR DEPOSITION APPARATUS EMPLOYING LINEAR INJECTORS FOR DELIVERING GASEOUS CHEMICALS AND METHOD/Dobkin; Strifler; McGrogan	09/113,730 07/10/98		
FP	66484	PC	AJT MSS	CHEMICAL VAPOR DEPOSITION APPARATUS EMPLOYING LINEAR INJECTORS FOR DELIVERING GASEOUS CHEMICALS AND METHOD/Dobkin; Strifler; McGrogan	PCT/US99/08702 04/21/99		PCT
FA	66484	TW	AJT MSS	CHEMICAL VAPOR DEPOSITION APPARATUS EMPLOYING LINEAR INJECTORS FOR DELIVERING GASEOUS CHEMICALS AND METHOD/Dobkin; Strifler; McGrogan			Taiwan
A	66959		AJT MSS	WAFER PROCESSING REACTOR HAVING A GAS FLOW CONTROL SYSTEM AND METHOD/Bartholomew	In process *		
P	66959		AJT MSS	WAFER PROCESSING REACTOR HAVING A GAS FLOW CONTROL SYSTEM AND METHOD/Bartholomew	60/118,286 02/02/99		
A	67178		AJT MSS	METERING TUBE/ Yao, Stoddard, Hamilton	Opened 11/12/98 *		

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P	67178		AJT MSS	GAS DELIVERY METERING TUBE; Stoddard; Yao; Hamilton; Ingle; DeSa; Kudriavstev; Peabody	60/135,358 05/21/99		
A	67388		AJT MSS	METHOD FOR DEPOSITING SILICON DIOXIDE FILM AND PRODUCT/Mahawili	07/370,331 06/22/89	Abandoned **	
FA	67388	JP	AJT MSS	METHOD FOR DEPOSITING SILICON DIOXIDE FILM AND PRODUCT/Mahawili	165499/90 06/22/90	Abandoned **	Japan
FA	67388	KR	AJT MSS	METHOD FOR DEPOSITING SILICON DIOXIDE FILM AND PRODUCT/Mahawili	1990-9287 06/22/90	162652 09/01/98 Abandoned **	Korea
FA	67388	TW	AJT MSS	METHOD FOR DEPOSITING SILICON DIOXIDE FILM AND PRODUCT/Mahawili	79105124	50934 01/04/92 Abandoned **	Taiwan
FE	67388	EP	AJT MSS	METHOD FOR DEPOSITING SILICON DIOXIDE FILM AND PRODUCT/Mahawili	90111648.3 06/20/90	0404101 06/20/90 Abandoned **	Europe
FE	67388	DE	AJT MSS	METHOD FOR DEPOSITING SILICON DIOXIDE FILM AND PRODUCT/Mahawili	90111648.3 06/20/90	0404101 06/20/90 Abandoned **	Germany
FE	67388	FR	AJT MSS	METHOD FOR DEPOSITING SILICON DIOXIDE FILM AND PRODUCT/Mahawili	90111648.3 06/20/90	0404101 06/20/90 Abandoned **	France
FE	67388	NL	AJT MSS	METHOD FOR DEPOSITING SILICON DIOXIDE FILM AND PRODUCT/Mahawili	90111648.3 06/20/90	0404101 06/20/90 Abandoned **	Netherlands
FE	67388	UK	AJT MSS	METHOD FOR DEPOSITING SILICON DIOXIDE FILM AND PRODUCT/Mahawili	90111648.3 06/20/90	0404101 06/20/90 Abandoned **	United Kingdom
A	67388	1	AJT MSS	METHOD FOR DEPOSITING SILICON DIOXIDE FILM AND PRODUCT/Mahawili	07/661,837 02/27/91	Abandoned **	
A	67389		AJT MSS	CHEMICAL VAPOR DEPOSITION REACTOR AND METHOD OF OPERATION/Mahawili	07/386,903 07/28/89	4,993,358 02/19/91	
FA	67389	JP	AJT MSS	CHEMICAL VAPOR DEPOSITION REACTOR AND METHOD OF OPERATION/Mahawili	201089/90	Abandoned **	Japan

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FA	67389	KR	AJT MSS	CHEMICAL VAPOR DEPOSITION REACTOR AND METHOD OF OPERATION/Mahawili	11454/1990	Abandoned **	Korea
FA	67389	TW	AJT MSS	CHEMICAL VAPOR DEPOSITION REACTOR AND METHOD OF OPERATION/Mahawili	79105355	47787 09/26/91 Abandoned **	Taiwan
FE	67389	EP	AJT MSS	CHEMICAL VAPOR DEPOSITION REACTOR AND METHOD OF OPERATION/Mahawili	90114325.5	Abandoned **	Europe
A	67390		AJT MSS	MULTI-ZONE PLANAR HEATER ASSEMBLY AND METHOD OF OPERATION/Mahawili	07/409,125 09/19/89	5,059,770 10/22/91	
FA	67390	JP	AJT MSS	MULTI-ZONE PLANAR HEATER ASSEMBLY AND METHOD OF OPERATION/Mahawili	242305/90 09/12/90	213364 11/14/97	Japan
FA	67390	KR	AJT MSS	MULTI-ZONE PLANAR HEATER ASSEMBLY AND METHOD OF OPERATION/Mahawili	14732/90 09/18/90	160510 08/19/98	Korea
FA	67390	TW	AJT MSS	MULTI-ZONE PLANAR HEATER ASSEMBLY AND METHOD OF OPERATION/Mahawili	79105354	51351 01/23/92	Taiwan
FE	67390	EP	AJT MSS	MULTI-ZONE PLANAR HEATER ASSEMBLY AND METHOD OF OPERATION/Mahawili	90115336.1 08/10/90	0418541 06/15/94	Europe
FE	67390	DE	AJT MSS	MULTI-ZONE PLANAR HEATER ASSEMBLY AND METHOD OF OPERATION/Mahawili	90115336.1 08/10/90	0418541 06/15/94	Germany
FE	67390	FR	AJT MSS	MULTI-ZONE PLANAR HEATER ASSEMBLY AND METHOD OF OPERATION/Mahawili	90115336.1 08/10/90	0418541 06/15/94	France
FE	67390	NL	AJT MSS	MULTI-ZONE PLANAR HEATER ASSEMBLY AND METHOD OF OPERATION/Mahawili	90115336.1 08/10/90	0418541 06/15/94	Netherlands
FE	67390	UK	AJT MSS	MULTI-ZONE PLANAR HEATER ASSEMBLY AND METHOD OF OPERATION/Mahawili	90115336.1 08/10/90	0418541 06/15/94	United Kingdom
A	67391		AJT MSS	METHOD OF SOLDERING IN A CONTROLLED-CONVECTION SURFACE-MOUNT REFLOW FURNACE/Alley, Carmassi, Daley, Roffey	07/677,661 03/29/91	5,232,145 08/03/93	
A	67392		AJT MSS	METHOD FOR PRODUCING HIGHLY CONDUCTIVE AND TRANSPARENT FILMS OF TIN AND FLUORIDE DOPED INDIUM OXIDE BY APCVD/Mayer	07/668,858 03/13/91	5,122,391 06/16/92	

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A	67392	1	AJT MSS	METHOD AND APPARATUS FOR PRODUCING HIGHLY CONDUCTIVE AND TRANSPARENT FILMS OF TIN AND FLUORIDE DOPED INDIUM OXIDE BY APCVD/Mayer	07/856,457 03/24/92	Abandoned **	
FA	67392	JP	AJT MSS	METHOD FOR PRODUCING HIGHLY CONDUCTIVE AND TRANSPARENT FILMS OF TIN AND FLUORIDE DOPED INDIUM OXIDE BY APCVD/Mayer	53519/92	Abandoned **	Japan
FA	67392	KR	AJT MSS	METHOD FOR PRODUCING HIGHLY CONDUCTIVE AND TRANSPARENT FILMS OF TIN AND FLUORIDE DOPED INDIUM OXIDE BY APCVD/Mayer	4058/1992	Abandoned **	Korea
FE	67392	EP	AJT MSS	METHOD FOR PRODUCING HIGHLY CONDUCTIVE AND TRANSPARENT FILMS OF TIN AND FLUORIDE DOPED INDIUM OXIDE BY APCVD/Mayer	92103329.6	Abandoned **	Europe
P	67588		AJT MSS	PROTECTIVE GAS SHIELD APPARATUS; Stoddard, Yuh	60/135,362 05/21/99		
P	67735		AJT MSS	IMPROVED TRENCH ISOLATION PROCESS USING APCVD TEOS; OZONE TO DEPOSIT A TRENCH FILL OXIDE PRIOR TO SIDEWALL LINER OXIDATION GROWTH/Curtis, Rao, Kapkin	60/127,520 04/02/99		
P	67736		AJT MSS	NEAR-ATMOSPHERIC CVD SYSTEM WITH VERTICALLY-STACKED PROCESS CHAMBERS/Carvalho, Mayer, Menagh, Savage, Vaughan	60/127,532 04/02/99		
P	67737		AJT MSS	SINGLE-AXIS DUAL-WAFER TRANSFER SYSTEM/Troiani, Cossentine	60/127,650 04/02/99		
P	68017		AJT MSS	IMPROVED SURFACE COMPOSITION AND METHOD FOR METAL COMPONENTS/Bailey, Michael, Kane	60/130,783 04/23/99		
P	68048		AJT MSS	EQUAL FLOW SPLIT GAS DELIVERY APPARATUS/Bartholomew, Yuh, Stumbo, King, Chan	60/134,443 05/17/99		

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A	68073	AJT MSS	CHEMICAL VAPOR DEPOSITION OF SILICON DIOXIDE BY USING ALKYL SILOXANE OLIGOMERS WITH OZONE FOR SUB 0.18 MICRON DEVICE APPLICATIONS IN VLSI/Jain, Yuan			
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