

PATENT ASSIGNMENT

Electronic Version v1.1
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SUBMISSION TYPE:

NEW ASSIGNMENT

NATURE OF CONVEYANCE:

ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
LAM RESEARCH CORPORATION	01/08/2008

RECEIVING PARTY DATA

Name:	APPLIED MATERIALS, INC.
Street Address:	3050 Bowers Avenue
City:	Santa Clara
State/Country:	CALIFORNIA
Postal Code:	95054

PROPERTY NUMBERS Total: 26

Property Type	Number
Patent Number:	6585574
Patent Number:	6406363
Patent Number:	6656030
Patent Number:	6347977
Patent Number:	6540587
Patent Number:	6131589
Patent Number:	6405740
Patent Number:	6517426
Patent Number:	5449316
Patent Number:	5961169
Patent Number:	5423716
Patent Number:	6283827
Patent Number:	6267642
Patent Number:	6796881
Patent Number:	6102057

OP \$1040.00 6585574

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PATENT
REEL: 026006 FRAME: 0750

Patent Number:	6505635
Patent Number:	6354926
Patent Number:	6935934
Patent Number:	6146242
Patent Number:	6488568
Application Number:	10032081
Patent Number:	6953391
Application Number:	10950625
Application Number:	10262028
Application Number:	10882750
Patent Number:	6951503

CORRESPONDENCE DATA

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NAME OF SUBMITTER:	Suzanne Courtney
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Total Attachments: 37

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ASSIGNMENT OF PATENT RIGHTS

For good and valuable consideration, the receipt of which is hereby acknowledged, Lam Research Corporation, a Delaware corporation, with an address at 4650 Cushing Parkway, Fremont CA 94538-6470, ("**Assignor**"), does hereby sell, assign, transfer, and convey unto Applied Materials, Inc., a Delaware corporation, with an address at 3050 Bowers Avenue, Santa Clara, CA 95054-3299 ("**Assignee**"), or its designees, all its right, title, and interest that exist today and may exist in the future in and to any and all of the following (collectively, the "**Patent Rights**"):

(a) the provisional patent applications, patent applications and patents listed in Exhibit A (the "**Patents**");

(b) rights in any or all countries of the world to apply for patents, certificates of invention, utility models, industrial design protections, design patent protections, or other governmental grants or issuances of any type described in any of the Patents and the inventions, invention disclosures, and discoveries therein;

(c) causes of action (whether known or unknown or whether currently pending, filed, or otherwise) and other enforcement rights under, or on account of, any of the Patents and/or the rights described in clause (b) above, including, without limitation, all causes of action and other enforcement rights for (i) damages, (ii) injunctive relief, and (iii) any other remedies of any kind for past, current and future infringement; and

(d) rights to collect royalties or other payments under or on account of any of the Patents and/or any of the foregoing.

Assignor hereby authorizes the respective patent office or governmental agency in each jurisdiction to issue any and all patents, certificates of invention, utility models or other governmental grants or issuances that may be granted upon any of the Patent Rights in the name of Assignee, as the assignee to the entire interest therein.

The terms and conditions of this Assignment of Patent Rights will inure to the benefit of Assignee, its successors, assigns, and other legal representatives and will be binding upon Assignor, its successors, assigns, and other legal representatives.

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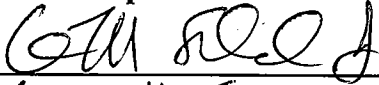
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IN WITNESS WHEREOF this Assignment of Patent Rights is executed at FREMONT,
CALIF on JAN. 8, 2008.

ASSIGNOR:

Lam Research Corporation

By: 
Name: GEORGE M. SCHISLER, JR.
Title: GENERAL COUNSEL

Matter No	Type	Country	Patent/Serial	Status	Old-Added	Title
389		US	6306019	Issued		Method and Apparatus for Conditioning a Polishing Pad
389		TW	150261	Issued		Method and Apparatus for Conditioning a Polishing Pad
389		MY	120006217	Pending		Method and Apparatus for Conditioning a Polishing Pad
429		US	6086460	Issued		Method and Apparatus for Conditioning a Polishing Pad used in Chemical Mechanical Planarization
429		TW	NI-133277	Issued		Method and Apparatus for Conditioning a Polishing Pad used in Chemical Mechanical Planarization
429 C		US	6328637	Issued		Method and Apparatus for Conditioning a Polishing Pad used in Chemical Mechanical Planarization
429		KR	10-0642405	Issued		Method and Apparatus for Conditioning a Polishing Pad used in Chemical Mechanical Planarization
429		JP	2000580799	Pending		Method and Apparatus for Conditioning a Polishing Pad used in Chemical Mechanical Planarization
429		EP	99971753.1	Pending		Method and Apparatus for Conditioning a Polishing Pad used in Chemical Mechanical Planarization
430		JP	3745421	Issued		Polishing Pad Cluster for Polishing a Semiconductor Wafer
430		US	5575707	Issued		Polishing Pad Cluster for Polishing a Semiconductor Wafer
430 D		EP	919330	Issued		Polishing Pad Cluster for Polishing a Semiconductor Wafer
430		FR	706856	Issued		Polishing Pad Cluster for Polishing a Semiconductor Wafer
430		DE	P69512170.7 (0706856)	Issued		Polishing Pad Cluster for Polishing a Semiconductor Wafer
430		IT	706856	Issued		Polishing Pad Cluster for Polishing a Semiconductor Wafer
430		NL	706856	Issued		Polishing Pad Cluster for Polishing a Semiconductor Wafer
430		GB	706856	Issued		Polishing Pad Cluster for Polishing a Semiconductor Wafer
430 D		DE	69525665.3 (0919330)	Issued		Polishing Pad Cluster for Polishing a Semiconductor Wafer
430 D		FR	919330	Issued		Polishing Pad Cluster for Polishing a Semiconductor Wafer
430 D		GB	919330	Issued		Polishing Pad Cluster for Polishing a Semiconductor Wafer
430 D		IT	919330	Issued		Polishing Pad Cluster for Polishing a Semiconductor Wafer
430 D		NL	919330	Issued		Polishing Pad Cluster for Polishing a Semiconductor Wafer
431		US	5593344	Issued		Wafer Polishing Machine with Fluid Bearings and Drive Systems
431 X		US	5558568	Issued		Wafer Polishing Machine with Fluid Bearings
431 X		FR	706857	Issued		Wafer Polishing Machine with Fluid Bearings
431 X		DE	69510745.3	Issued		Wafer Polishing Machine with Fluid Bearings
431 X		GB	706857	Issued		Wafer Polishing Machine with Fluid Bearings
431		AT	706855	Issued		Wafer Polishing Machine with Fluid Bearings and Drive Systems

431	FR	706855	Issued	Wafer Polishing Machine with Fluid Bearings and Drive Systems
431	CH	706855	Issued	Wafer Polishing Machine with Fluid Bearings and Drive Systems
431	NL	706855	Issued	Wafer Polishing Machine with Fluid Bearings and Drive Systems
431	IT	706855	Issued	Wafer Polishing Machine with Fluid Bearings and Drive Systems
431	BE	706855	Issued	Wafer Polishing Machine with Fluid Bearings and Drive Systems
431	SE	706855	Issued	Wafer Polishing Machine with Fluid Bearings and Drive Systems
431	GB	706855	Issued	Wafer Polishing Machine with Fluid Bearings and Drive Systems
431	DE	P69517906.3 0706855	Issued	Wafer Polishing Machine with Fluid Bearings and Drive Systems
431	ES	706855	Issued	Wafer Polishing Machine with Fluid Bearings and Drive Systems
431	IE	706855	Issued	Wafer Polishing Machine with Fluid Bearings and Drive Systems
431	DK	706855	Issued	Wafer Polishing Machine With Fluid Bearings and Drive Systems
431	JP	7263153	Pending	Wafer Polishing Machine With Fluid Bearings
431 X	JP	7260427	Abandoned	Wafer Holder for Semiconductor Wafer Polishing Machine
432	US	5571044	Issued	Wafer Holder for Semiconductor Wafer Polishing Machine
432	GB	706854	Issued	Wafer Holder for Semiconductor Wafer Polishing Machine
432	DE	0706854 P69520863.2	Issued	Wafer Holder for Semiconductor Wafer Polishing Machine
432	AT	706854	Issued	Wafer Holder for Semiconductor Wafer Polishing Machine
432	FR	706854	Issued	Wafer Holder for Semiconductor Wafer Polishing Machine
432	NL	706854	Issued	Wafer Holder for Semiconductor Wafer Polishing Machine
432	IT	706854	Issued	Wafer Holder for Semiconductor Wafer Polishing Machine
432	ES	706854	Issued	Wafer Holder for Semiconductor Wafer Polishing Machine
432	IE	706854	Issued	Wafer Holder for Semiconductor Wafer Polishing Machine
432	JP	7260426	Pending	Wafer Holder for Semiconductor Wafer Polishing Machine
433 C	US	5803799	Issued	Wafer Holder for Semiconductor Wafer Polishing Machine
433	BE	786310	Issued	Wafer Polishing Head

433	DE	786310	Issued	Wafer Polishing Head
433	FR	786310	Issued	Wafer Polishing Head
433	GB	786310	Issued	Wafer Polishing Head
433	IT	786310	Issued	Wafer Polishing Head
433	NL	786310	Issued	Wafer Polishing Head
433	EP	786310	Issued	Wafer Polishing Head
435 C2 Z	US	6231427	Issued	Linear Polisher and Method for Semiconductor Wafer Planarization
435	FR	696495	Issued	Linear Polisher and Method for Semiconductor Wafer Planarization
435	DE	69512971.6	Issued	Linear Polisher and Method for Semiconductor Wafer Planarization
435	IT	696495	Issued	Linear Polisher and Method for Semiconductor Wafer Planarization
435	NL	696495	Issued	Linear Polisher and Method for Semiconductor Wafer Planarization
436	US	5857899	Issued	Wafer Polishing Head with Pad Dressing Element
436 D	US	5913714	Issued	Method for Dressing a Polishing Pad During Polishing of a Semiconductor Wafer
437	US	6146248	Issued	Method and Apparatus for In-situ Endpoint Detection and Optimization of a Chemical Mechanical Polishing Process Using a Linear Polisher
437 D	US	6261155	Issued	Method and Apparatus for In-situ End -Point Detection and Optimization of a Chemical Mechanical Polishing Process Using a Linear Polisher
437	TW	NI-136914	Issued	Method and Apparatus for In-situ End -Point Detection and Optimization of a Chemical Mechanical Polishing Process Using a Linear Polisher
438 Z	US	6108091	Issued	Method and Apparatus for In-Situ Monitoring of Thickness during Chemical Mechanical Polishing
438 C	US	6621584	Issued	Method and Apparatus for In-Situ Monitoring of Thickness During Chemical Mechanical Polishing
440 D2	KR	507432	Issued	Method and Apparatus for Polishing Semiconductor Wafers
440 D	KR	521538	Issued	Method and Apparatus for Polishing Semiconductor Wafers
440	US	6,336,845 B1	Issued	Method and Apparatus for Polishing Semiconductor Wafers
440 D	TW	122038	Issued	Method and Apparatus for Polishing Semiconductor Wafers
440 D2	TW	122488	Issued	Method and Apparatus for Polishing Semiconductor Wafers

440 D	US	6,517,418 B2	Issued	Method of Transporting a Semiconductor Wafer in a Wafer Polishing System
440 D2	US	6416385	Issued	Method and Apparatus for Polishing Semiconductor Wafers
440 D	AT	AT E 267 070 T1	Issued	Method and Apparatus for Polishing Semiconductor Wafers
440 D	BE	916451	Issued	Method and Apparatus for Polishing Semiconductor Wafers
440 D	DE	916451	Issued	Method and Apparatus for Polishing Semiconductor Wafers
440 D	FR	916451	Issued	Method and Apparatus for Polishing Semiconductor Wafers
440 D	GB	916451	Issued	Method and Apparatus for Polishing Semiconductor Wafers
440 D	IE	916451	Issued	Method and Apparatus for Polishing Semiconductor Wafers
440 D	IT	916451	Issued	Method and Apparatus for Polishing Semiconductor Wafers
440 D	NL	916451	Issued	Method and Apparatus for Polishing Semiconductor Wafers
440 D2	DE	916452	Issued	Method and Apparatus for Polishing Semiconductor Wafers
440 D2	IT	916452	Issued	Method and Apparatus for Polishing Semiconductor Wafers
440 D2	FR	916452	Issued	Method and Apparatus for Polishing Semiconductor Wafers
440 D2	JP	10322395	Pending	Method and Apparatus for Polishing Semiconductor Wafers
440 D	JP	10322394	Pending	Method and Apparatus for Polishing Semiconductor Wafers
442	US	6068539	Issued	Wafer Polishing Device with Movable Window
442	EP	941806	Issued	Wafer Polishing Device with Movable Window
442	TW	140416	Issued	Wafer Polishing Device with Movable Window
442	KR	10-0576890	Issued	Wafer Polishing Device with Movable Window
442 C	US	6254459	Issued	Wafer Polishing Device with Movable Window
442	DE	941806	Issued	Wafer Polishing Device with Movable Window
442	FR	941806	Issued	Wafer Polishing Device with Movable Window
442	GB	941806	Issued	Wafer Polishing Device with Movable Window
442	IT	941806	Issued	Wafer Polishing Device with Movable Window
442	JP	1163211	Pending	Wafer Polishing Device with Movable Window
444	US	5800248	Issued	Control of CMP Rate Across a Substrate Surface
444 C	US	5916012	Issued	Control of Chemical-Mechanical Polishing Rate Across a Substrate Surface for a Linear Polisher
444 X	US	5762536	Issued	Sensors for a Linear Polisher
445	US	5722877	Issued	Technique for Improving Within-Wafer Non-Uniformity of Material Removal for Performing CMP
446	TW	NI-104659	Issued	Integrated Pad and Belt for Chemical Mechanical Polishing
446 Z	US	6328642	Issued	Integrated Pad and Belt for CMP Using Linear Planarization Technology
446	KR	506235	Issued	Integrated Pad and Belt for CMP Using Linear Planarization Technology

446	GB	966338	Issued	Integrated Pad and Belt for CMP Using Linear Planarization Technology
446	DE	966338	Issued	Integrated Pad and Belt for CMP Using Linear Planarization Technology
446	IT	966338	Issued	Integrated Pad and Belt for CMP Using Linear Planarization Technology
446	NL	966338	Issued	Integrated Pad and Belt for CMP Using Linear Planarization Technology
446	EP	966338	Issued	Integrated Pad and Belt for CMP Using Linear Planarization Technology
446 ZD2	US	6656025	Issued	Integrated Pad and Belt Chemical Mechanical Polishing Technology
446	FR	966338	Issued	Integrated Pad and Belt for CMP Using Linear Planarization Technology
446	JP	10535888	Pending	Integrated Pad and Belt for CMP Using Linear Planarization Technology
447	US	6244946	Issued	Polishing Head with Removable Subcarrier
447 D	US	6533646	Issued	Polishing Head with Removable Subcarrier
448	US	5871390	Issued	Method and Apparatus for Aligning and Tensioning a Pad/Belt Used in Linear Planarization for CMP
449 Z	US	6132289	Issued	Apparatus and Method for Film Thickness Measurement Integrated Into a Wafer Load/Unload Unit
449	EP	1068047	Issued	Apparatus and Method for Film Thickness Measurement Integrated Into a Wafer Load/Unload Unit
449	KR	10-0602285	Issued	Apparatus and Method for Film Thickness Measurement Integrated Into a Wafer Load/Unload Unit
449	AT	E240817	Issued	Apparatus and Method for Film Thickness Measurement Integrated Into a Wafer Load/Unload Unit
449	BE	1068047	Issued	Apparatus and Method for Film Thickness Measurement Integrated Into a Wafer Load/Unload Unit
449	DE	1068047	Issued	Apparatus and Method for Film Thickness Measurement Integrated Into a Wafer Load/Unload Unit
449	FR	1068047	Issued	Apparatus and Method for Film Thickness Measurement Integrated Into a Wafer Load/Unload Unit
449	IE	1068047	Issued	Apparatus and Method for Film Thickness Measurement Integrated Into a Wafer Load/Unload Unit
449	IT	1068047	Issued	Apparatus and Method for Film Thickness Measurement Integrated Into a Wafer Load/Unload Unit

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449	JP	2000540972	Pending	Apparatus and Method for Film Thickness Measurement Integrated Into a Wafer Load/Unload Unit
479	US	6,186,865 B1	Issued	A Method and Apparatus for Detecting the End Point During Chemical Mechanical Polishing
479	TW	127860	Issued	A Method and Apparatus for Detecting the End Point During Chemical Mechanical Polishing
480 Z	US	6325706	Issued	Use of Zeta Potential During Chemical Mechanical Polishing for End Point Detection
480	TW	138490	Issued	Control of Zeta Potential During Chemical Mechanical Polishing
480	KR	10-0637568	Issued	Use of Zeta Potential During Chemical Mechanical Polishing for End Point Detection
480	EP	1124666	Issued	Use of Zeta Potential During Chemical Mechanical Polishing for End Point Detection
480	AT	1124666	Issued	Use of Zeta Potential During Chemical Mechanical Polishing for End Point Detection
480	DE	69902553	Issued	Use of Zeta Potential During Chemical Mechanical Polishing for End Point Detection
480	FR	1124666	Issued	Use of Zeta Potential During Chemical Mechanical Polishing for End Point Detection
480	GB	1124666	Issued	Use of Zeta Potential During Chemical Mechanical Polishing for End Point Detection
480	IT	1124666	Issued	Use of Zeta Potential During Chemical Mechanical Polishing for End Point Detection
480	JP	2000579404	Pending	Use of Zeta Potential During Chemical Mechanical Polishing for End Point Detection
481	US	6402591	Issued	Planarization System for Chemical Mechanical Polishing
485 DC	US	11256293	Allowed	Method and System for Chemical Mechanical Polishing Pad
485	US	6,352,595 B1	Issued	Method and System for Cleaning a Chemical Mechanical Polishing Pad
485	TW	135237	Issued	Method and System for Cleaning a Chemical Mechanical Polishing Pad
485 D	US	6994611	Issued	Method and System for Cleaning a Chemical Mechanical Polishing Pad
485	EP	1181134	Issued	Method and System for Cleaning a Chemical Mechanical Polishing Pad

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485	GB	1181134	Issued	Method and System for Cleaning a Chemical Mechanical Polishing Pad
485	JP	2000621118	Pending	Method and System for Cleaning a Chemical Mechanical Polishing Pad
485	KR	20017014999	Pending	Method and System for Cleaning a Chemical Mechanical Polishing Pad
485	DE	60029437	Pending	Method and System for Cleaning a Chemical Mechanical Polishing Pad
485	FR	928726.9	Pending	Method and System for Cleaning a Chemical Mechanical Polishing Pad
485	IT	928726.9	Pending	Method and System for Cleaning a Chemical Mechanical Polishing Pad
485	NL	928726.9	Pending	Method and System for Cleaning a Chemical Mechanical Polishing Pad
488	KR	20017014762	Allowed	Chemical Mechanical Planarization or Polishing Pad with Sections having Varied Groove Patterns
488	US	6261168	Issued	Chemical Mechanical Planarization or Polishing Pad with Sections having Varied Groove Patterns
488	TW	145507	Issued	Chemical Mechanical Planarization or Polishing Pad with Sections having Varied Groove Patterns
488 C1	US	6634936	Issued	Chemical Mechanical Planarization or Polishing Pad with Sections having Varied Groove Patterns
488 C2	US	6585579	Issued	Chemical Mechanical Planarization or Polishing Pad with Sections having Varied Groove Patterns
488	SG	84870	Issued	Chemical Mechanical Planarization or Polishing Pad with Sections having Varied Groove Patterns
488	AT	E251524 (EP 1178872)	Issued	Chemical Mechanical Planarization or Polishing Pad with Sections having Varied Groove Patterns
488	DE	P60005816.6 (EP1178872)	Issued	Chemical Mechanical Planarization or Polishing Pad with Sections having Varied Groove Patterns
488	FR	1178872	Issued	Chemical Mechanical Planarization or Polishing Pad with Sections having Varied Groove Patterns
488	GB	1178872	Issued	Chemical Mechanical Planarization or Polishing Pad with Sections having Varied Groove Patterns
488	IT	1178872	Issued	Chemical Mechanical Planarization or Polishing Pad with Sections having Varied Groove Patterns

488	NL	1178872	Issued	Chemical Mechanical Planarization or Polishing Pad with Sections having Varied Groove Patterns
488 D	SG	2003068434	Pending	Chemical Mechanical Planarization or Polishing Pad with Sections having Varied Groove Patterns
488	JP	2000619588	Pending	Chemical Mechanical Planarization or Polishing Pad with Sections having Varied Groove Patterns
488 D	EP	3075541.7	Pending	Chemical Mechanical Planarization or Polishing Pad with Sections having Varied Groove Patterns
515 Z	US	6224461	Issued	A Method and Apparatus for Stabilizing the Process Temperature During Chemical Mechanical Polishing
515	TW	154888	Issued	A Method and Apparatus for Stabilizing the Process Temperature During Chemical Mechanical Polishing
515	GB	1165288	Issued	A Method and Apparatus for Stabilizing the Process Temperature During Chemical Mechanical Polishing
515	DE	60003014	Issued	A Method and Apparatus for Stabilizing the Process Temperature During Chemical Mechanical Polishing
515	IT	1165288	Issued	A Method and Apparatus for Stabilizing the Process Temperature During Chemical Mechanical Polishing
515	JP	2000607791	Pending	A Method and Apparatus for Stabilizing the Process Temperature During Chemical Mechanical Polishing
529	US	6431959	Issued	System and Method of Defect Optimization for Chemical Mechanical Planarization of Polysilicon
536 X	US	6585574	Issued	Improved Polishing Pad with Reduced Moisture Absorption
536	TW	88109099	Pending	Improved Polishing Pad with Reduced Moisture Absorption
538	US	6,406,363 B1	Issued	Unsupported Chemical Mechanical Polishing Belt
538	TW	NI-145616	Issued	Unsupported Chemical Mechanical Polishing Belt
538 C	US	6656030	Issued	Unsupported Chemical Mechanical Polishing Belt
546	US	6569004	Issued	Polishing Pad and Method of Manufacture
546	TW	151536	Issued	Polishing Pad and Method of Manufacture
546 C	US	6869339	Issued	Polishing Pad and Method of Manufacture
546	EP	311271.1	Pending	Polishing Pad and Method of Manufacture
546	JP	2000405014	Pending	Polishing Pad and Method of Manufacture
546	DE	311271.1	Pending	Polishing Pad and Method of Manufacture
546	FR	311271.1	Pending	Polishing Pad and Method of Manufacture
546	GB	311271.1	Pending	Polishing Pad and Method of Manufacture
546	IT	311271.1	Pending	Polishing Pad and Method of Manufacture
546	NL	311271.1	Pending	Polishing Pad and Method of Manufacture

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547 X	US	6,425,812 B1	Issued	Polishing Head for Chemical Mechanical Polishing using Linear Planarization Technology
554	US	6083082	Issued	Spindle Assembly for Force Controlled Polishing
554	TW	153057	Issued	Spindle Assembly for Force Controlled Polishing
554	SG	87407	Issued	Spindle Assembly for Force Controlled Polishing
554	FR	1207981	Issued	Spindle Assembly for Force Controlled Polishing
554	GB	1207981	Issued	Spindle Assembly for Force Controlled Polishing
554	IT	1207981	Issued	Spindle Assembly for Force Controlled Polishing
554	DE	P60007642.31207981	Issued	Spindle Assembly for Force Controlled Polishing
554	JP	2001520259	Pending	Spindle Assembly for Force Controlled Polishing
554	KR	20027002464	Pending	Spindle Assembly for Force Controlled Polishing
555	US	6,261,959 B1	Issued	Method and Apparatus for Chemically-Mechanically Polishing Semiconductor Wafers
556	US	6428394	Issued	Method and Apparatus for Chemical Mechanical Planarization and Polishing of Semiconductor Wafers using a Continuous Polishing Member Feed (Note: fixed abrasives)
569	US	6500056	Issued	Linear Reciprocating Disposable Belt Polishing Method and Apparatus
569 D	US	6746320	Issued	Linear Reciprocating Disposable Belt Polishing Method and Apparatus
581	US	6315634	Issued	Method of Optimizing Chemical Mechanical Planarization Process
583	US	6666756	Issued	Wafer Carrier Head Assembly
583	TW	154063	Issued	Wafer Carrier Head Assembly
583	SG	91779	Issued	Wafer Carrier Head Assembly
583	KR	20027012754	Pending	Wafer Carrier Head Assembly
583	EP	1922768.5	Pending	Wafer Carrier Head Assembly
583	JP	2001572259	Pending	Wafer Carrier Head Assembly
600	US	6347977	Issued	Wafer Carrier Head Assembly
600	TW	151292	Issued	Method and System for Chemical Mechanical Polishing with a Method and System for Chemical Mechanical Polishing with a Cylindrical Polishing Pad
600	SG	86858	Issued	Method and System for Chemical Mechanical Polishing
600	FR	1212170	Issued	Method and System for Chemical Mechanical Polishing
600	GB	1212170	Issued	Method and System for Chemical Mechanical Polishing
600	DE	6006139	Issued	Method and System for Chemical Mechanical Polishing
600	JP	2001523177	Pending	Method and System for Chemical Mechanical Polishing

600	KR	20027003221	Pending	Method and System for Chemical Mechanical Polishing with a Cylindrical Polishing Pad
607	US	6616801	Issued	Method and Apparatus for Fixed Abrasive Substrate Manufacturing and Polishing Cluster Using a Single Platform
608	US	6,626,743 B1	Issued	Method and Apparatus for Conditioning a Polishing Pad
608 C	US	6899601	Issued	Method and Apparatus for Conditioning a Polishing Pad
611	US	6,495,464 B1	Issued	Method and Apparatus for Fixed Abrasive Substrate Preparation and Use in a Cluster CMP Tool
611 C	US	6936133	Issued	Method and Apparatus for Fixed Abrasive Substrate Preparation and Use in a Cluster CMP Tool
611 D	US	6733615	Issued	Method and Apparatus for Fixed Abrasive Substrate Preparation and Use in a Cluster CMP Tool
612	US	6,340,326 B1	Issued	System and Method for Controlled Polishing and Planarization of Semiconductor Wafers
612	TW	149207	Issued	System and Method for Controlled Polishing and Planarization of Semiconductor Wafers
612 X	US	6,705,930 B2	Issued	System and Method for Polishing and Planarizing Semiconductor Wafers Using Reduced Surface Area Polishing Pads and Variable Partial Pad-Wafer Overlapping Techniques
612 C	US	6729943	Issued	System and Method for Controlled Polishing and Planarization of Semiconductor Wafers
612 X	TW	172875	Issued	Method of Planarizing IC's Using a Hybrid CMP Technology
612	SG	89994	Issued	System and Method for Controlled Polishing and Planarization of Semiconductor Wafers
612	EP	1250215	Issued	System and Method for Controlled Polishing and Planarization of Semiconductor Wafers
612 X	SG	97582	Issued	System and Method for Polishing and Planarizing of Semiconductor Wafers Using Reduced Surface Area Polishing Pads
612 XD	US	6,869,337 B2	Issued	System and Method for Polishing and Planarizing Semiconductor Wafers Using Reduced Surface Area Polishing Pads and Variable Partial Pad-Wafer Overlapping Techniques
612	BE	1250215	Issued	System and Method for Controlled Polishing and Planarization of Semiconductor Wafers

612	DE	P60102891.0 (1250215)	Issued	System and Method for Controlled Polishing and Planarization of Semiconductor Wafers
612	FR	1250215	Issued	System and Method for Controlled Polishing and Planarization of Semiconductor Wafers
612	GB	1250215	Issued	System and Method for Controlled Polishing and Planarization of Semiconductor Wafers
612	IT	1250215	Issued	System and Method for Controlled Polishing and Planarization of Semiconductor Wafers
612	JP	2001554832	Pending	System and Method for Controlled Polishing and Planarization of Semiconductor Wafers
612	KR	20027009738	Pending	System and Method for Controlled Polishing and Planarization of Semiconductor Wafers
612 X	CN	1821762.1	Pending	System and Method for Polishing and Planarizing Semiconductor Wafers Using Reduced Surface Area Polishing Pads and Variable Partial Pad-Wafer Overlapping Techniques
612 X	JP	2003554262	Pending	System and Method for Polishing and Planarizing Semiconductor Wafers Using Reduced Surface Area Polishing Pads and Variable Partial Pad-Wafer Overlapping Techniques
612 X	KR	1.02004E+12	Pending	System and Method for Polishing and Planarizing Semiconductor Wafers Using Reduced Surface Area Polishing Pads and Variable Partial Pad-Wafer Overlapping Techniques
612 X 617	EP US	1988320.6 6755723	Pending Issued	System and Method for Polishing and Planarizing Semiconductor Wafers Using Reduced Surface Area Polishing Pads and Variable Partial Pad-Wafer Overlapping Techniques
618	US	6645046	Issued	System and Method for Polishing and Planarizing Semiconductor Wafers Using Reduced Surface Area Polishing Pads and Variable Partial Pad-Wafer Overlapping Techniques
618 620	TW US	187811 6552812	Issued Issued	System and Method for Polishing and Planarizing Semiconductor Wafers Using Reduced Surface Area Polishing Pads and Variable Partial Pad-Wafer Overlapping Techniques
638	US	6503766	Issued	System and Method for Polishing and Planarizing Semiconductor Wafers Using Reduced Surface Area Polishing Pads and Variable Partial Pad-Wafer Overlapping Techniques

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640	US	6505636	Issued	Added	Method and Apparatus for Wafer Carrier In-Process Clean and Rinse
640 X	US	6659116	Issued	Added	System for Wafer Carrier In-Process Clean and Rinse
644	US	6435952	Issued		Apparatus and Method for Qualifying a Chemical Mechanical Planarization Process
644 C	US	6,679,763 B2	Issued		Apparatus and Method for Qualifying a Chemical Mechanical Planarization Process
645	US	6361414	Issued		Apparatus and Method for Conditioning a Fixed Abrasive Polishing Pad in a Chemical Mechanical Planarization Process
647	US	6579407	Issued		Method and Apparatus for Aligning and Setting the Axis of Rotation of Spindles of a Multi-Body System
647 C	US	7,025,854 B2	Issued		Method and Apparatus for Aligning and Setting the Axis of Rotation of Spindles of a Multi-Body System
648	US	6,468,134 B1	Issued		Method and Apparatus for Slurry Distribution
649	US	6358118	Issued	Added	Field Controlled Polishing Apparatus and Method
649 C	US	6612904	Issued		Field Controlled Polishing Apparatus
652	US	6,447,380 B1	Issued	Added	Polishing Apparatus and Substrate Retainer Ring Providing Continuous Slurry Distribution
653	US	6,386,962 B1	Issued		Wafer Carrier with Groove for Decoupling Retainer Ring from Wafer
653	TW	163337	Issued		Wafer Carrier with Groove for Decoupling Retainer Ring from Wafer
653	SG	94117	Issued		Wafer Carrier with Groove for Decoupling Retainer Ring from Wafer
653	CN	ZL 01814800.X	Issued		Wafer Carrier with Groove for Decoupling Retainer Ring from Wafer
653	DE	1294537	Issued		Wafer Carrier with Groove for Decoupling Retainer Ring from Wafer
653	FR	1294537	Issued		Wafer Carrier with Groove for Decoupling Retainer Ring from Wafer
653	IT	1294537	Issued		Wafer Carrier with Groove for Decoupling Retainer Ring from Wafer
653	JP	2002506891	Pending		Wafer Carrier with Groove for Decoupling Retainer Ring from Wafer
653	KR	20027017731	Pending		Wafer Carrier with Groove for Decoupling Retainer Ring from Wafer

654	US	6,375,540 B1	Issued	End-Point Detection System for Chemical Mechanical Polishing Applications
654	TW	158244	Issued	End-Point Detection System for Chemical Mechanical Polishing Applications
654 D	US	6,726,530 B2	Issued	End-Point Detection System for Chemical Mechanical Polishing Applications
654	EP	1399294	Issued	End-Point Detection System for Chemical Mechanical Polishing Applications
654	SG	94116	Issued	End-Point Detection System for Chemical Mechanical Polishing Applications
654	CN	ZL 01823405.4	Issued	End-Point Detection System for Chemical Mechanical Polishing Applications
654 DC	US	7029369	Issued	End-Point Detection Apparatus
654	JP	2003508520	Pending	End-Point Detection System for Chemical Mechanical Polishing Applications
654	KR	20027017735	Pending	End-Point Detection System for Chemical Mechanical Polishing Applications
654	GB	1950481	Pending	End-Point Detection System for Chemical Mechanical Polishing Applications
654	DE	1950481	Pending	End-Point Detection System for Chemical Mechanical Polishing Applications
654	FR	1950481	Pending	End-Point Detection System for Chemical Mechanical Polishing Applications
655	US	6800020	Issued	Web-Style Pad Conditioning System and Methods for Implementing the Same
655	TW	193632	Issued	Web-Style Pad Conditioning System and Methods for Implementing the Same
655	FR	1322449	Issued	Web-Style Pad Conditioning System and Methods for Implementing the Same
655	DE	1322449	Issued	Web-Style Pad Conditioning System and Methods for Implementing the Same
655	JP	2002532012	Pending	Web-Style Pad Conditioning System and Methods for Implementing the Same
655	KR	20037004655	Pending	Web-Style Pad Conditioning System and Methods for Implementing the Same
661	US	6520833	Issued	Oscillating Fixed Abrasive CMP System and Methods for Implementing the Same

661 C	US	6902466	Issued	Oscillating Chemical Mechanical Planarization Apparatus
662	US	6585572	Issued	Subaperture chemical mechanical Polishing System
662	TW	158635	Issued	Subaperture chemical mechanical Polishing System
662	CN	ZL 01814551.5	Issued	Subaperture chemical mechanical Polishing System
662	SG	95211	Issued	Subaperture Chemical Mechanical Polishing System
662	JP	2002520987	Pending	Subaperture chemical mechanical Polishing System
662	KR	20037002175	Pending	Subaperture chemical mechanical Polishing System
662	EP	1955879	Pending	Subaperture chemical mechanical Polishing System
666	US	6540587	Issued	Subaperture chemical mechanical Polishing System
666	TW	161993	Issued	Infrared End Point Detection System
666	SG	95963	Issued	Infrared End Point Detection System
666	CN	ZL 01817300.4	Issued	Infrared Endpoint System for CMP (as amended)
666	EP	1981582.8	Pending	Infrared Endpoint System for CMP (as amended)
666	JP	2002535160	Pending	Infrared Endpoint System for CMP (as amended)
666	KR	20037005141	Pending	Infrared Endpoint System for CMP (as amended)
667 D	US	10202053	Allowed	Interlocking Chemical Mechanical Polishing System
667	US	6475332	Issued	Interlocking Chemical Mechanical Polishing System
669	TW	90124597	Allowed	Activated Slurry CMP System and Methods for Implementing the Same
669	US	6,503,129 B1	Issued	Activated Slurry CMP System and Methods for Implementing the Same
669 D	US	6866567	Issued	Activated Slurry CMP System and Methods for Implementing the Same
669	CN	ZL 01820223.3	Issued	Activated Slurry CMP System and Methods for Implementing the Same
669	SG	96043	Issued	Activated Slurry CMP System and Methods for Implementing the Same
669	EP	1322450	Issued	Activated Slurry CMP System and Methods for Implementing the Same
669	DE	1322450	Issued	Activated Slurry CMP System and Methods for Implementing the Same
669	JP	2002534039	Pending	Activated Slurry CMP System and Methods for Implementing the Same
669	KR	20037004885	Pending	Activated Slurry CMP System and Methods for Implementing the Same
669	BE	1977366.2	Pending	Activated Slurry CMP System and Methods for Implementing the Same

669	FR	1977366.2	Pending	Activated Slurry CMP System and Methods for Implementing the Same
669	GB	1977366.2	Pending	Activated Slurry CMP System and Methods for Implementing the Same
669	IT	1977366.2	Pending	Activated Slurry CMP System and Methods for Implementing the Same
673	US	6454637	Issued	Edge Instability Suppressing Device and System
673	TW	166517	Issued	Edge Instability Suppressing Device and System
673	SG	96104	Issued	Edge Instability Suppressing Device and System
673	EP	1968700.3	Pending	Edge Instability Suppressing Device and System
673	JP	2002530262	Pending	Edge Instability Suppressing Device and System
673	KR	20037004239	Pending	Edge Instability Suppressing Device and CMP System (as amended)
674	US	6554688	Issued	Method and Apparatus for Conditioning a Polishing Pad with Sonic Energy
674 X	US	6875091	Issued	Method and Apparatus for Conditioning a Polishing Pad with Sonic Energy
677	US	6,609,961 B2	Issued	Chemical Mechanical Planarization Belt Assembly and Method of Assembly
679	US	6471566	Issued	Sacrificial Retaining Ring CMP System and Methods for Implementing the Same
684	US	6,652,357 B1	Issued	Methods for Controlling Retaining Ring and Wafer Head Tilt for Chemical Mechanical Polishing
684	TW	177640	Issued	Apparatus and Methods for Controlling Retaining Ring and Wafer Head Tilt for Chemical Mechanical Polishing
684	SG	95383	Issued	Apparatus and Methods for Controlling Retaining Ring and Wafer Head Tilt for Chemical Mechanical Polishing
684 D	US	6976903	Issued	Controlling Retaining Ring and Wafer Head Tilt for Chemical Mechanical Polishing
684	JP	2002528461	Pending	Apparatus and Methods for Controlling Retaining Ring and Wafer Head Tilt for Chemical Mechanical Polishing
684	KR	20037004168	Pending	Apparatus and Methods for Controlling Retaining Ring and Wafer Head Tilt for Chemical Mechanical Polishing
684	EP	1971321.3	Pending	Apparatus and Methods for Controlling Retaining Ring and Wafer Head Tilt for Chemical Mechanical Polishing
684	GB	1971321.3	Pending	Apparatus and Methods for Controlling Retaining Ring and Wafer Head Tilt for Chemical Mechanical Polishing

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684	FR	1971321.3	Apparatus and Methods for Controlling Retaining Ring and Wafer Head Tilt for Chemical Mechanical Polishing
684	DE	1971321.3	Apparatus and Methods for Controlling Retaining Ring and Wafer Head Tilt for Chemical Mechanical Polishing
684	BE	1971321.3	Apparatus and Methods for Controlling Retaining Ring and Wafer Head Tilt for Chemical Mechanical Polishing
688	US	6131589	Accurate Positioning of a Wafer
688 C	US	6,405,740 B1	Accurate Positioning of a Wafer
688	KR	545680	Accurate Positioning of a Wafer
688	EP	1084001	Accurate Positioning of a Wafer
688	BE	1084001	Accurate Positioning of a Wafer
688	FR	1084001	Accurate Positioning of a Wafer
688	DE	1084001	Accurate Positioning of a Wafer
688	IE	1084001	Accurate Positioning of a Wafer
688	GB	1084001	Accurate Positioning of a Wafer
688	JP	2000531259	Accurate Positioning of a Wafer
701	US	6,620,031 B2	Method for Optimizing the Planarizing Length of a Polishing Pad
704 X	US	6910949	Spherical Cap-Shaped Polishing Head in a Chemical Mechanical Polishing Apparatus for Semiconductor Wafers
710	US	6,443,815 B1	Apparatus and Methods for Controlling Pad Conditioning Head Tilt for Chemical Mechanical Polishing
711	TW	91117789	Platen Assembly Having a Topographically Altered Platen Surface
711	US	6,712,679 B2	Platen Assembly Having a Topographically Altered Platen Surface
711	SG	103509	Platen Assembly Having a Topographically Altered Platen Surface
711	CN	2818816	Platen Assembly Having a Topographically Altered Platen Surface
711	EP	2763400.5	Platen Assembly Having a Topographically Altered Platen Surface
711	RU	2004106550	Platen Assembly Having a Topographically Altered Platen Surface
722	US	6,776,695 B2	Platen Design for Improving Edge Performance in CMP Applications

722	TW	189164	Issued	Platen Design for Improving Edge Performance in CMP Applications
722	CN	ZL 018209068	Issued	Platen Design for Improving Edge Performance in CMP Applications
722	SG	97087	Issued	Belt Polishing Device with Double Retainer Ring
722 X	US	6988934	Issued	Method and Apparatus of a Variable Height and Controlled Fluid Flow Platen in a Chemical Mechanical Polishing System
722	DE	1349703	Issued	Platen Design for Improving Edge Performance in CMP Applications
722	FR	1349703	Issued	Platen Design for Improving Edge Performance in CMP Applications
722	GB	1349703	Issued	Platen Design for Improving Edge Performance in CMP Applications
722	IE	1349703	Issued	Platen Design for Improving Edge Performance in CMP Applications
722	NL	1349703	Issued	Platen Design for Improving Edge Performance in CMP Applications
722	IT	1349703	Issued	Platen Design for Improving Edge Performance in CMP Applications
722 D	US	6913521	Issued	Methods Using Active Retainer Rings for Improving Edge Performance in CMP Applications
722	JP	2002551131	Pending	Belt Polishing Device with Double Retainer Ring
722	KR	20037007596	Pending	Belt Polishing Device with Double Retainer Ring
723	US	6809031	Issued	Method for Manufacturing a Reclaimable Test Pattern Wafer for CMP Applications
731	US	6746313	Issued	Polishing Head Assembly in an Apparatus for Chemical Mechanical Planarization
733	US	6620035	Issued	Grooved Rollers for a Linear Chemical Mechanical Planarization System
733	TW	I223618	Issued	Grooved Rollers for a Linear Chemical Mechanical Planarization System
733	SG	105092	Issued	Grooved Rollers for a Linear Chemical Mechanical Planarization System
733	CN	2826232.8	Pending	Grooved Rollers for a Linear Chemical Mechanical Planarization System

733	EP	2792494.3	Pending	Grooved Rollers for a Linear Chemical Mechanical Planarization System
733	DE	60222589	Pending	Grooved Rollers for a Linear Chemical Mechanical Planarization System
733	FR	2792494.3	Pending	Grooved Rollers for a Linear Chemical Mechanical Planarization System
733	GB	2792494.3	Pending	Grooved Rollers for a Linear Chemical Mechanical Planarization System
733	IT	2792494.3	Pending	Grooved Rollers for a Linear Chemical Mechanical Planarization System
733	JP	2003557748	Pending	Grooved Rollers for a Linear Chemical Mechanical Planarization System
733	KR	20047010162	Pending	Grooved Rollers for a Linear Chemical Mechanical Planarization System
734	US	6,729,945 B2	Issued	Apparatus for Controlling Leading Edge and Trailing Edge Polishing
734 X	US	6991512	Issued	Apparatus for Edge Polishing Uniformity Control
734	TW	205315	Issued	Apparatus for Controlling Leading Edge and Trailing Edge Polishing
734	SG	100025	Issued	Support for a Polishing Belt (as amended upon publication)
734	CN	ZL 028075366	Issued	Apparatus for Controlling Leading Edge and Trailing Edge Polishing
734	EP	2757877.2	Pending	Support for a Polishing Belt
734	JP	2002577153	Pending	Support for a Polishing Belt
734	KR	20037012785	Pending	Support for a Polishing Belt
737	US	6517426	Issued	Composite Polishing Pad for Chemical-Mechanical Polishing
745 X	US	9748708	Allowed	Polishing Apparatus and Methods for Having High Processing Workload for Controlling Polishing Pressure Applied by Polishing Head
745 X	TW	194366	Issued	Polishing Apparatus and Methods for Having High Processing Workload for Controlling Polishing Pressure Applied by Polishing Head
745 X	SG	95212	Issued	Polishing Apparatus and Methods for Having High Processing Workload for Controlling Polishing Pressure Applied by Polishing Head

745 X	EP	1311368	Issued	Polishing Apparatus and Methods for Having High Processing Workload for Controlling Polishing Pressure Applied by Polishing Head
745 X	FR	1311368	Issued	Polishing Apparatus and Methods for Having High Processing Workload for Controlling Polishing Pressure Applied by Polishing Head
745 X	DE	1311368	Issued	Polishing Apparatus and Methods for Having High Processing Workload for Controlling Polishing Pressure Applied by Polishing Head
745 X	GB	1311368	Issued	Polishing Apparatus and Methods for Having High Processing Workload for Controlling Polishing Pressure Applied by Polishing Head
745 X	IT	1311368	Issued	Polishing Apparatus and Methods for Having High Processing Workload for Controlling Polishing Pressure Applied by Polishing Head
745 X	CN	1817778.6	Pending	Polishing Apparatus and Methods for Having High Processing Workload for Controlling Polishing Pressure Applied by Polishing Head
745 X	JP	2002520989	Pending	Polishing Apparatus and Methods for Having High Processing Workload for Controlling Polishing Pressure Applied by Polishing Head
745 X	KR	20037002603	Pending	Polishing Apparatus and Methods for Having High Processing Workload for Controlling Polishing Pressure Applied by Polishing Head
746 X	US	6640155	Issued	Chemical Mechanical Polishing Apparatus and Methods with Central Control of Polishing Pressure Applied by Polishing Head
747	US	6607425	Issued	Pressurized Membrane Platen Design for Improving Performance in CMP Applications
747	TW	198157	Issued	Pressurized Membrane Platen Design for Improving Performance in CMP Applications
747	CN	ZL018210716	Issued	Pressurized Membrane Platen Design for Improving Performance in CMP Applications
747	SG	97088	Issued	Pressurized Membrane Platen Design for Improving Performance in CMP Applications
747	DE	1349704	Issued	Pressurized Membrane Platen Design for Improving Performance in CMP Applications

747	FR	1349704	Issued	Pressurized Membrane Platen Design for Improving Performance in CMP Applications
747	GB	1349704	Issued	Pressurized Membrane Platen Design for Improving Performance in CMP Applications
747	IE	1349704	Issued	Pressurized Membrane Platen Design for Improving Performance in CMP Applications
747	NL	1349704	Issued	Pressurized Membrane Platen Design for Improving Performance in CMP Applications
747	IT	1349704	Issued	Pressurized Membrane Platen Design for Improving Performance in CMP Applications
747	JP	2002551130	Pending	Polishing Platen with Pressurized Membrane
747	KR	20037007699	Pending	Pressurized Membrane Platen Design for Improving Performance in CMP Applications
748	US	9747844	Pending	Piezoelectric Platen Design for Improving Performance in CMP Applications
750	US	6,719,874 B1	Issued	Active Retaining Ring Support
751	EP	2723724.7	Allowed	Apparatus and Methods for Aligning a Surface of an Active Retainer Ring with a Wafer Surface for Chemical Mechanical Polishing
751	AT	2723724.7	Pending	Apparatus and Methods for Aligning a Surface of an Active Retainer Ring with a Wafer Surface for Chemical Mechanical Polishing
751	BE	2723724.7	Pending	Apparatus and Methods for Aligning a Surface of an Active Retainer Ring with a Wafer Surface for Chemical Mechanical Polishing
751	CH	2723724.7	Pending	Apparatus and Methods for Aligning a Surface of an Active Retainer Ring with a Wafer Surface for Chemical Mechanical Polishing
751	GB	2723724.7	Pending	Apparatus and Methods for Aligning a Surface of an Active Retainer Ring with a Wafer Surface for Chemical Mechanical Polishing
751	US	6709322	Issued	Apparatus for Aligning a Surface of an Active Retainer Ring with a Wafer Surface for Chemical Mechanical Polishing
751	TW	191343	Issued	Apparatus and Methods for Aligning a Surface of an Active Retainer Ring with a Wafer Surface for Chemical Mechanical Polishing

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751	SG	98798	Issued	Apparatus and Methods for Aligning a Surface of an Active Retainer Ring with a Wafer Surface for Chemical Mechanical Polishing
751 D	US	6843707	Issued	Methods for Aligning a Surface of an Active Retainer Ring With a Wafer Surface For Chemical Mechanical Polishing
751	CN	2807596	Pending	Apparatus and Methods for Aligning a Surface of an Active Retainer Ring with a Wafer Surface for Chemical Mechanical Polishing
751	JP	2002577149	Pending	Apparatus and Methods for Aligning a Surface of an Active Retainer Ring with a Wafer Surface for Chemical Mechanical Polishing
751	KR	20037012417	Pending	Apparatus and Methods for Aligning a Surface of an Active Retainer Ring with a Wafer Surface for Chemical Mechanical Polishing
751 D	EP	6014635.4	Pending	Apparatus and Methods for Aligning a Surface of an Active Retainer Ring with a Wafer Surface for Chemical Mechanical Polishing
751	DE	2723724.7	Pending	Apparatus and Methods for Aligning a Surface of an Active Retainer Ring with a Wafer Surface for Chemical Mechanical Polishing
751	FR	2723724.7	Pending	Apparatus and Methods for Aligning a Surface of an Active Retainer Ring with a Wafer Surface for Chemical Mechanical Polishing
752	US	6,561,870 B2	Issued	Adjustable Force Applying Air Platen and Spindle System, and Methods for Using the Same
752	TW	NI-179122	Issued	Adjustable Force Applying Air Platen and Spindle System, and Methods for Using the Same
752	CN	ZL02811065.X	Issued	A Chemical Mechanical Planarization System with An Adjustable Force Applying Air Platen
752	SG	99231	Issued	Adjustable Force Applying Air Platen and Spindle System, and Methods for Using the Same
752	JP	2002577150	Pending	Adjustable Force Applying Air Platen and Spindle System, and Methods for Using the Same
752	KR	20037012660	Pending	Adjustable Force Applying Air Platen and Spindle System, and Methods for Using the Same
752	EP	2733909.2	Pending	Adjustable Force Applying Air Platen and Spindle System, and Methods for Using the Same

753	US	6579157	Issued	Polishing Pad Ironing System and Methods for Implementing the Same
753 D	US	6896596	Issued	Polishing Pad Ironing System
757	US	6761626	Issued	Air Platen for Leading Edge and Trailing Edge Control
757	TW	222391	Issued	Air Platen for Leading Edge and Trailing Edge Control
757 C	US	7018276	Issued	Air Platen for Leading Edge and Trailing Edge Control
757	EP	2787029.4	Pending	Air Platen for Leading Edge and Trailing Edge Control
757	JP	2003554384	Pending	Air Platen for Leading Edge and Trailing Edge Control
757	SG	2004033940	Pending	Air Platen for Leading Edge and Trailing Edge Control
757	CN	2825539.9	Pending	Air Platen for Leading Edge and Trailing Edge Control
757	KR	1.02005E+12	Pending	Air Platen for Leading Edge and Trailing Edge Control
758	US	6561889	Issued	Methods for Making Reinforced Wafer Polishing Pads and Apparatuses Implementing the Same
758	TW	190323	Issued	Methods for Making Reinforced Wafer Polishing Pads and Apparatuses Implementing the Same
758	CN	ZL 01821518.1	Issued	Methods for Making Reinforced Wafer Polishing Pads and Apparatuses Implementing the Same
758	SG	97533	Issued	Methods for Making Reinforced Wafer Polishing Pads and Apparatuses Implementing the Same
758	DE	1345733	Issued	Methods for Making Reinforced Wafer Polishing Pads and Apparatuses Implementing the Same
758	FR	1345733	Issued	Methods for Making Reinforced Wafer Polishing Pads and Apparatuses Implementing the Same
758	GB	1345733	Issued	Methods for Making Reinforced Wafer Polishing Pads and Apparatuses Implementing the Same
758	NL	1345733	Issued	Methods for Making Reinforced Wafer Polishing Pads and Apparatuses Implementing the Same
758	JP	2002552714	Pending	Methods for Making Reinforced Wafer Polishing Pads and Apparatuses Implementing the Same
758	KR	20037008573	Pending	Methods for Making Reinforced Wafer Polishing Pads and Apparatuses Implementing the Same
764	US	6,767,427 B2	Issued	Apparatus and Method for Conditioning a Polishing Pad in a Chemical Mechanical Planarization Process
767	US	6,641,470 B1	Issued	Apparatus for Accurate Endpoint Detection in Supported Polishing Pads
767	KR	20037012784	Pending	Reinforced Polishing Pad with a Shaped or Flexible Window Structure

767	IL	157827	Pending	Apparatus for Accurate Endpoint Detection in Supported Polishing Pads
767	CN	1543387	Pending	Apparatus for Accurate Endpoint Detection in Supported Polishing Pads
767	JP	2005-506682	Pending	Apparatus for Accurate Endpoint Detection in Supported Polishing Pads
767	TW	548734	Pending	Apparatus for Accurate Endpoint Detection in Supported Polishing Pads
768	US	6716093	Issued	Low Friction Gimbal Substrate Holder for CMP Apparatus ^{d,e}
771	US	6572463	Issued	Methods for Making Reinforced Wafer Polishing Pads Utilizing Direct Casting and Apparatuses Implementing the Same
771 C	US	6949020	Issued	Methods for Making Reinforced Wafer Polishing Pads and Apparatuses Implementing the Same
774	US	6645052	Issued	Method and Apparatus for Controlling CMP Pad Surface Finish
774	TW	194142	Issued	Method and Apparatus for Controlling CMP Pad Surface Finish
774 C	US	6939207	Issued	Method and Apparatus for Controlling CMP Pad Surface Finish
780	US	5449316	Issued	Wafer Carrier for Film Planarization
781	US	5961169	Issued	Apparatus for Sensing the Presence of a Wafer
781	KR	579786	Issued	Apparatus for Sensing the Presence of a Wafer
781	SG	78682	Issued	Apparatus for Sensing the Presence of a Wafer
781	TW	138122	Issued	Apparatus for Sensing the Presence of a Wafer
781	EP	9938820	Pending	Apparatus for Sensing the Presence of a Wafer
781	JP	2000562188	Pending	Apparatus for Sensing the Presence of a Wafer
782	US	5423716	Issued	Wafer Handling Apparatus Having a Resilient Membrane Which Holds Wafer When a Vacuum is Applied
783 ^{d,d,d}	EP	1952962.7	Allowed	Projected Gimbal Point Drive
783 ^{d,d,d}	AT	1952962.7	Allowed	Projected Gimbal Point Drive
783 ^{d,d,d}	BE	1952962.7	Allowed	Projected Gimbal Point Drive
783 ^{d,d,d}	DE	1952962.7	Allowed	Projected Gimbal Point Drive
783 ^{d,d,d}	FR	1952962.7	Allowed	Projected Gimbal Point Drive
783 ^{d,d,d}	GB	1952962.7	Allowed	Projected Gimbal Point Drive
783 ^{d,d,d}	NL	1952962.7	Allowed	Projected Gimbal Point Drive

783	IE	1952962.7	Allowed	Projected Gimbal Point Drive
783	IT	1952962.7	Allowed	Projected Gimbal Point Drive
783	US	6808443	Issued	Projected Gimbal Point Drive
783	TW	159501	Issued	Projected Gimbal Point Drive
783	SG	94002	Issued	Projected Gimbal Point Drive
783	CN	ZL 01812194.2	Issued	Projected Gimbal Point Drive
783	JP	2002506892	Pending	Projected Gimbal Point Drive
783	KR	20027017732	Pending	Projected Gimbal Point Drive
785	US	6,283,827 B1	Issued	Projected Gimbal Point Drive
786	US	6,267,642 B1	Issued	Non-Contacting Support for a Wafer
786 C	US	6796881	Issued	Sensing the Presence of a Wafer
787	US	6102057	Issued	Sensing the Presence of a Wafer
787 C	US	6505635	Issued	Lifting and Rinsing a Wafer
				Lifting and Rinsing a Wafer
788	US	6354926	Issued	Parallel Alignment Method and Apparatus for Chemical Mechanical Polishing
788 C	US	6935934	Issued	Parallel Alignment Method and Apparatus for Chemical Mechanical Polishing
789	US	6146242	Issued	Optical View Port for Chemical Mechanical Planarization Endpoint Detection
789	TW	136243	Issued	Optical View Port for Chemical Mechanical Planarization Endpoint Detection
789 C	US	6488568	Issued	Optical View Port for Chemical Mechanical Planarization Endpoint Detection
789	SG	85287	Issued	Optical View Port for Chemical Mechanical Planarization Endpoint Detection
789	JP	2001503030	Pending	Optical Viewport for CMP Endpoint Detection
789	KR	20017015632	Pending	Optical Viewport for CMP Endpoint Detection
791	US	6599765	Issued	An Apparatus and Method for Providing a Signal Port in a Polishing Pad for Optical Endpoint Detection
791 C	US	6953515	Issued	An Apparatus and Method for Providing a Signal Port in a Polishing Pad for Optical Endpoint Detection
792	US	6592437	Issued	Active Gimbal Ring with Internal Gel and Methods for Making Same
801	US	6664557	Issued	In Situ Detection of Thin-Metal Interface Using Optical Interference
801 X	US	6812478	Issued	In Situ Detection of Thin Metal Interface Using Optical Interference Via A Dynamically Updated Reference

801 X2	US	6747283	Issued	In Situ Detection of Thin-Metal Interface Using High Resolution Special Analysis of Optical Interference
801	TW	206892	Issued	In Situ Detection of Thin-Metal Interface Using Optical Interference
801 X	TW	I 227333	Issued	In Situ Detection of Thin-Metal Interface Using Optical Interference
806	US	6612902	Issued	Method and Apparatus for End Point Triggering with Integrated Steering
806	TW	176422	Issued	Method and Apparatus for End Point Triggering with Integrated Steering
806	CN	ZL 02807604.4	Issued	Method and Apparatus for End Point Triggering with Integrated Steering
806	SG	98932	Issued	Method and Apparatus for End Point Triggering with Integrated Steering
806	JP	2002577154	Pending	Method and Apparatus for End Point Triggering with Integrated Steering
806	KR	20037012611	Pending	Method and Apparatus for End Point Triggering with Integrated Steering
806	EP	2733917.5	Pending	Method and Apparatus for End Point Triggering with Integrated Steering
817	US	6676493	Issued	Integrated Planarization and Clean Wafer Processing System Apparatus and Methods with Resolution Enhancement Feature for Improving Accuracy of Conversion of Required Chemical Mechanical Polishing Pressure to Force to be Applied by Polishing Head to Wafer
821	US	6,725,120 B2	Issued	Apparatus and Methods with Resolution Enhancement Feature for Improving Accuracy of Conversion of Required Chemical Mechanical Polishing Pressure to Force to be Applied by Polishing Head to Wafer
821	TW	181380	Issued	Apparatus and Methods with Resolution Enhancement Feature for Improving Accuracy of Conversion of Required Chemical Mechanical Polishing Pressure to Force to be Applied by Polishing Head to Wafer
821	SG	98859	Issued	Apparatus and Methods with Resolution Enhancement Feature for Improving Accuracy of Conversion of Required Chemical Mechanical Polishing Pressure to Force to be Applied by Polishing Head to Wafer

Added

821 D1	US	6909935	Issued	Apparatus and Methods with Resolution Enhancement Feature for Improving Accuracy of Conversion of Required Chemical Mechanical Polishing Pressure to Force to be Applied by Polishing Head to Wafer
821	JP	2002577656	Pending	Apparatus and Methods with Resolution Enhancement Feature for Improving Accuracy of Conversion of Required Chemical Mechanical Polishing Pressure to Force to be Applied by Polishing Head to Wafer
821	CN	2807603.6	Pending	Apparatus and Methods with Resolution Enhancement Feature for Improving Accuracy of Conversion of Required Chemical Mechanical Polishing Pressure to Force to be Applied by Polishing Head to Wafer
821	KR	20037012612	Pending	Apparatus and Methods with Resolution Enhancement Feature for Improving Accuracy of Conversion of Required Chemical Mechanical Polishing Pressure to Force to be Applied by Polishing Head to Wafer
821	EP	2721617.5	Pending	Apparatus and Methods with Resolution Enhancement Feature for Improving Accuracy of Conversion of Required Chemical Mechanical Polishing Pressure to Force to be Applied by Polishing Head to Wafer
821	DE	2721617.5	Pending	Apparatus and Methods with Resolution Enhancement Feature for Improving Accuracy of Conversion of Required Chemical Mechanical Polishing Pressure to Force to be Applied by Polishing Head to Wafer
821	FR	2721617.5	Pending	Apparatus and Methods with Resolution Enhancement Feature for Improving Accuracy of Conversion of Required Chemical Mechanical Polishing Pressure to Force to be Applied by Polishing Head to Wafer
821	GB	2721617.5	Pending	Apparatus and Methods with Resolution Enhancement Feature for Improving Accuracy of Conversion of Required Chemical Mechanical Polishing Pressure to Force to be Applied by Polishing Head to Wafer
821	IT	2721617.5	Pending	Apparatus and Methods with Resolution Enhancement Feature for Improving Accuracy of Conversion of Required Chemical Mechanical Polishing Pressure to Force to be Applied by Polishing Head to Wafer

821	NL	2721617.5	Pending	Apparatus and Methods with Resolution Enhancement Feature for Improving Accuracy of Conversion of Required Chemical Mechanical Polishing Pressure to Force to be Applied by Polishing Head to Wafer
821 D2	US	10789524	Pending	Apparatus with Resolution Enhancement Feature for Improving Accuracy of Conversion of Required Chemical Mechanical Polishing Pressure to Force to be Applied by Polishing Head to Wafer
822	US	6,712,670 B2	Issued	Method and Apparatus for Applying Downward Force on Wafer During CMP
822	TW	I 226083	Issued	Method and Apparatus for Applying Downward Force on Wafer During CMP
822	SG	104828	Issued	Method and Apparatus for Applying Downward Force on Wafer During CMP
822 C	US	10776477	Pending	Method and Apparatus for Applying Downward Force on Wafer During CMP
822	EP	2792495	Pending	Method and Apparatus for Applying Downward Force on Wafer During CMP
822	CN	2826230.1	Pending	Method and Apparatus for Applying Downward Force on Wafer During CMP
822	JP	2003557747	Pending	Method and Apparatus for Applying Downward Force on Wafer During CMP
822	KR	20047010047	Pending	Method and Apparatus for Applying Downward Force on Wafer During CMP
822	FR	2792495	Pending	Method and Apparatus for Applying Downward Force on Wafer During CMP
822	DE	2792495	Pending	Method and Apparatus for Applying Downward Force on Wafer During CMP
822	GB	2792495	Pending	Method and Apparatus for Applying Downward Force on Wafer During CMP
822	IT	2792495	Pending	Method and Apparatus for Applying Downward Force on Wafer During CMP
823	US	6,752,703 B2	Issued	CMP Apparatus and Methods with Porous Vacuum Chuck and Perforated Carrier Film
824	US	6752698	Issued	Method and Apparatus for Conditioning Fixed-Abrasive Polishing Pads

Added

826	US	6669539	Issued	Added	System for In-situ Monitoring of Removal Rate/Thickness of Top Layer During Planarization
827	US	6808442	Issued	Added	Apparatus for Removal/Remaining Thickness Profile Manipulation
829	US	6939212	Issued	Added	Porous Materials Air Bearing Platen for Chemical Mechanical Planarization
830	US	6656024	Issued		Method and Apparatus for Reducing Compressed Dry Air Usage During Chemical Mechanical Planarization
830 C	US	6976906	Issued		Apparatus for Reducing Compressed Dry Air Usage During Chemical Mechanical Planarization
838	US	6,749,491 B1	Issued		CMP Belt Stretch Compensation Apparatus and Methods for Using the Same
838 D	US	6878048	Issued		CMP Belt Stretch Compensation Apparatus and Methods for Using the Same
843	US	6767428	Issued		Method and Apparatus for Chemical Mechanical Planarization
843 D	US	7033250	Issued		Method for Chemical Mechanical Planarization
851	US	6,652,708 B2	Issued		Method and Apparatus for Conditioning and Temperature Control of a Processing Surface
851	TW	I 223617	Issued		Method and Apparatus for Conditioning and Temperature Control of a Processing Surface
851	SG	104822	Issued		Method and Apparatus for Conditioning and Temperature Control of a Processing Surface
851	JP	2003558910	Pending		Method and Apparatus for Conditioning and Temperature Control of a Processing Surface
851	KR	20047010197	Pending		Method and Apparatus for Conditioning and Temperature Control of a Processing Surface
851	CN	2826404.5	Pending		Method and Apparatus for Conditioning and Temperature Control of a Processing Surface
851	EP	2806221.4	Pending		Method and Apparatus for Conditioning and Temperature Control of a Processing Surface
869	US	6716299	Issued	Added	Profiled Retaining Ring for Chemical Mechanical Planarization
878	US	10032081	Pending	Added	Wafer Carrier and Method for Providing Localized Planarization of a Wafer During Chemical Mechanical Planarization
885	US	6790128	Issued	Added	Fluid Conserving Platen For Optimizing Edge Polishing

893	US	6,736,720 B2	Issued	Apparatus and Methods for Controlling Wafer Temperature in Chemical Mechanical Polishing
893	TW	I 227181	Issued	Apparatus and Methods for Controlling Wafer Temperature in Chemical Mechanical Polishing
893 D	US	6984162	Issued	Apparatus Methods for Controlling Wafer Temperature in Chemical Mechanical Polishing (as Amended)
893 C	US	7029368	Issued	Apparatus for Controlling Wafer Temperature in Chemical Mechanical Polishing (as Amended)
893	EP	2795883.4	Pending	Apparatus and Methods for Controlling Wafer Temperature in Chemical Mechanical Polishing
893	CN	2815166.6	Pending	Apparatus and Methods for Controlling Wafer Temperature in Chemical Mechanical Polishing
893	IL	159628	Pending	Apparatus and Methods for Controlling Wafer Temperature in Chemical Mechanical Polishing
893	JP	2003557749	Pending	Apparatus and Methods for Controlling Wafer Temperature in Chemical Mechanical Polishing
893	KR	20037017327	Pending	Apparatus and Methods for Controlling Wafer Temperature in Chemical Mechanical Polishing
896	US	6666326	Issued	Reinforced Chemical Mechanical Planarization Belt
896	TW	202237	Issued	Reinforced Chemical Mechanical Planarization Belt
896	SG	107179	Issued	Reinforced Chemical Mechanical Planarization Belt
896	EP	3711516.9	Pending	Reinforced Chemical Mechanical Planarization Belt
896	JP	2003576832	Pending	Reinforced Chemical Mechanical Planarization Belt
896	KR	20047014272	Pending	Reinforced Chemical Mechanical Planarization Belt
896	CN	3805654.2	Pending	Reinforced Chemical Mechanical Planarization Belt
901	US	6766679	Issued	System and Method for Spindle Drive Downforce Calibration
908	US	6858171	Issued	Method For Making Reinforced Belt Pad For Linear Chemical Mechanical Planarization (As Amended)
909	US	6,896,600 B1	Issued	Liquid Dispense Manifold for Chemical-Mechanical Polisher
910	US	6890245	Issued	Byproduct Control in Linear Chemical Mechanical Planarization System
914	US	6896586	Issued	Method and Apparatus for Heating Polishing Pad
914	TW	I 258399	Issued	Method and Apparatus for Heating Polishing Pad
914	CN	3812395.9	Pending	Method and Apparatus for Heating Polishing Pad
914	JP	2003580034	Pending	Method and Apparatus for Heating Polishing Pad
914	EP	3716874.7	Pending	Method and Apparatus for Heating Polishing Pad

917	US	6806948	Issued	System and Method of Broad Band Optical End Point Detection for Film Change Indication
917	TW	203080	Issued	System and Method of Broad Band Optical End Point Detection for Film Change Indication
917 X	US	7099013	Issued	System and Method of Broad Band Optical End Point Detection for Film Change Indication
917	SG	106015	Issued	System and Method of Broad Band Optical End Point Detection for Film Change Indication
917	EP	3716897.8	Pending	System and Method of Broad Band Optical End Point Detection for Film Change Indication
917	JP	2003580901	Pending	System and Method of Broad Band Optical End Point Detection for Film Change Indication
917	KR	20047015393	Pending	System and Method of Broad Band Optical End Point Detection for Film Change Indication
917	CN	3807422.2	Pending	System and Method of Broad Band Optical End Point Detection for Film Change Indication
920	US	6,609,952 B1	Issued	Chemical Mechanical Planarization (CMP) System and Method for Determining an Endpoint in a CMP Operation
920 D	US	6,749,483 B2	Issued	Chemical Mechanical Planarization (CMP) System and Method for Determining an Endpoint in a CMP Operation
932	US	6821195	Issued	Carrier Head Having Location Optimized Vacuum Holes
933 D	US	6953391	Issued	Methods for Reducing Slurry Usage in a Linear Chemical Mechanical Planarization System
942	US	10950625	Pending	Chemical-Mechanical Polishing Pad Having Bristles with Enlarged Distal Ends
943	US	6949016	Issued	Gimbaled Conditioning Apparatus
955	KR	1.02005E+12	Allowed	Partial-Membrane Carrier Head
955	US	6758726	Issued	Partial-Membrane Carrier Head
955	TW	1 221643	Issued	Partial-Membrane Carrier Head
955	EP	3762017.6	Pending	Partial-Membrane Carrier Head
955	CN	3815370	Pending	Partial-Membrane Carrier Head
955	JP	2004517788	Pending	Partial-Membrane Carrier Head
955	SG	2004072062	Pending	Partial-Membrane Carrier Head
963	US	6,752,693 B1	Issued	Afferent-Based Polishing Media for Chemical Mechanical Planarization
968	US	6887338	Issued	300MM Platen and Belt Configuration

975 X	US	10749531	Allowed	Method and Apparatus of Arrayed, Clustered or Coupled Eddy Current Sensor Configuration for Measuring Conductive Film Properties
975 X	TW	93140259	Allowed	Method and Apparatus of Arrayed, Clustered or Coupled Eddy Current Sensor Configuration for Measuring Conductive Film Properties
975	US	6808590	Issued	Method and Apparatus of Arrayed Sensors for Metrological Control
975 D	US	6951624	Issued	Method and Apparatus of Arrayed Sensors for Metrological Control
975	TW		Pending	Method and Apparatus of Arrayed Sensors for Metrological Control
975 X	MY	20045416	Pending	Method and Apparatus of Arrayed, Clustered or Coupled Eddy Current Sensor Configuration for Measuring Conductive Film Properties
975 X	EP	4813223.722	Pending	Method and Apparatus of Arrayed, Clustered or Coupled Eddy Current Sensor Configuration for Measuring Conductive Film Properties
975 X	JP	2006-547053	Pending	Method and Apparatus of Arrayed, Clustered or Coupled Eddy Current Sensor Configuration for Measuring Conductive Film Properties
975 X	KR	20067013316	Pending	Method and Apparatus of Arrayed, Clustered or Coupled Eddy Current Sensor Configuration for Measuring Conductive Film Properties
975 X	CN	200480042104.3	Pending	Method and Apparatus of Arrayed, Clustered or Coupled Eddy Current Sensor Configuration for Measuring Conductive Film Properties
975 X	SG	2006044440	Pending	Method and Apparatus of Arrayed, Clustered or Coupled Eddy Current Sensor Configuration for Measuring Conductive Film Properties
975 DX	US	11/681,711	Pending	Method and Apparatus of Arrayed, Clustered or Coupled Eddy Current Sensor Configuration for Measuring Conductive Film Properties
977	US	7040952	Issued	Method for Reducing or Eliminating De-Lamination of Semiconductor Wafer Film Layer During a Chemical Mechanical Planarization Process
			Added	

979	US	6666755	Issued	Added	Belt Wiper for a Chemical Mechanical Planarization System
981 X	US	10741933	Allowed		Apparatus and Method for Controlling Fluid Material Composition on a Polishing Pad
981	TW	93117679	Allowed		Apparatus and Method for Controlling Film Thickness in a Chemical Mechanical Planarization System & Apparatus and Method for Controlling Fluid Material Composition on a Polishing Pad.
981	US	10674373	Pending		Apparatus and Method for Controlling Film Thickness in a Chemical Mechanical Planarization System
981	MY	20042407	Pending		Apparatus and Method for Controlling Film Thickness and for Controlling Fluid Material Composition on a Polishing Pad.
981	EP	4776787.6	Pending		Apparatus and Method for Controlling Film Thickness and for Controlling Fluid Material Composition on a Polishing Pad
981	JP	2006517446	Pending		Apparatus and Method for Controlling Film Thickness and for Controlling Fluid Material Composition on a Polishing Pad
981	KR	20057024409	Pending		Apparatus and Method for Controlling Film Thickness and for Controlling Fluid Material Composition on a Polishing Pad
981	CN	2.0048E+11	Pending	Added	Apparatus and Method for Controlling Film Thickness and for Controlling Fluid Material Composition on a Polishing Pad
982	US	6,769,970	Issued		
986	US	7128803	Issued		Integration of Sensor Based Metrology into Semiconductor Processing Tools
986	TW	I 250573	Issued		Integration of Sensor Based Metrology into Semiconductor Processing Tools
986 X1	US	10463525	Pending		Method And Apparatus For Real Time Metal Film Thickness Measurement
986 X2	US	10463526	Pending		Method and Apparatus for Applying Differential Removal Rates to a Surface of a Substrate
986	CN	3815381.5	Pending		Integration of Sensor Based Metrology into Semiconductor Processing Tools

986	JP	2004517753	Pending	Integration of Sensor Based Metrology into Semiconductor Processing Tools
986	KR	1.02005E+12	Pending	Method and Apparatus for Applying Differential Removal Rates to a Surface of a Substrate
986	EP	3761990.5	Pending	Method and Apparatus for Applying Differential Removal Rates to a Surface of a Substrate
986	SG	2004072070	Pending	Integration of Sensor Based Metrology into Semiconductor Processing Tools
995	US	10262028	Pending	Controlling Hydrophobicity of a Processing Media
				Methods and Systems for Controlling Belt Surface Temperature and Slurry Temperature in Linear Chemical Mechanical Planarization
1006	US	6953750	Issued	Methods and Systems for Controlling Belt Surface Temperature and Slurry Temperature in Linear Chemical Mechanical Planarization
1006	TW	I 236397	Issued	Methods and Systems for Controlling Belt Surface Temperature and Slurry Temperature in Linear Chemical Mechanical Planarization
1006	EP	3799354	Pending	System and Method For Metal Residue Detection And Mapping Within A Multi-Step Sequence
1019	US	6929531	Issued	System and Method For Metal Residue Detection And Mapping Within A Multi-Step Sequence
1019	TW	NI 230998	Issued	System and Method For Metal Residue Detection And Mapping Within A Multi-Step Sequence
1019	JP	2004537761	Pending	System and Method For Metal Residue Detection And Mapping Within A Multi-Step Sequence
1019	KR	20057004813	Pending	System and Method For Metal Residue Detection And Mapping Within A Multi-Step Sequence
1019	EP	3752231.5	Pending	System and Method For Metal Residue Detection And Mapping Within A Multi-Step Sequence
1033	US	6,875,322 B1	Issued	System and Method For Metal Residue Detection And Mapping Within A Multi-Step Sequence
				Electrochemically Assisted CMP
1041	US	6806100	Issued	Molded End Point Detection Window for Chemical Mechanical Polishing
1044	US	6894491	Issued	Method and Apparatus for Metrological Process Control Implementing Complementary Sensors (complementary)
1044	TW	I 227775	Issued	Method and Apparatus for Metrological Process Control Implementing Complementary Sensors
1044 C	US	6922053	Issued	Complementary Sensors Metrological Process and Method and Apparatus for Implementing the Same

1044	CN	2.0038E+11	Pending	Method and Apparatus for Metrological Process Control Implementing Complementary Sensors
1044	JP	2004563776	Pending	Method and Apparatus for Metrological Process Control Implementing Complementary Sensors
1044	KR	20057011712	Pending	Method and Apparatus for Metrological Process Control Implementing Complementary Sensors
1044	EP	3814176.8	Pending	Method and Apparatus for Metrological Process Control Implementing Complementary Sensors
1044	SG	2005040415	Pending	Method and Apparatus for Metrological Process Control Implementing Complementary Sensors
1060 A	US	6769961	Issued	Chemical Mechanical Planarization (CMP) Apparatus Method and Apparatus for an Air Bearing Platen with Raised Topography
1069	US	6752898	Issued	Application of Heated Slurry for CMP
1080	TW	93119450	Pending	Pad Conditioner Control Using Feedback from a Measured Polishing Pad Roughness Level
1085	US	7018269	Issued	Apparatus and Associated Method for Conditioning in Chemical Mechanical Planarization
1106	US	7004825	Issued	Platen with Diaphragm and Method for Optimizing Wafer Polishing
1144	US	7018273	Issued	
1152	US	7001243	Issued	Neural Network Control of Chemical Mechanical Planarization Assembly and Method for Generating a Hydrodynamic Air Bearing
1156	US	7025660	Issued	Methods for Monitoring and Controlling Chemical Mechanical Planarization
1158	US	6931330	Issued	Method and Device for Wafer Mechanical Stress Monitoring and Wafer Thermal Stress Monitoring ^{g,g'}
1161	TW	93128393	Pending	Method and Apparatus for Wafer Mechanical Stress Monitoring and Wafer Thermal Stress Monitoring ^{g,g'}
1161	MY	20043800	Pending	System, Method and Apparatus for Applying Liquid to a CMP Polishing Pad
1172	US	6872128	Issued	System, Method and Apparatus for Applying Liquid to a CMP Polishing Pad
1172	TW	93129684	Pending	
1196	US	7086936	Issued	Linear Chemical Mechanical Planarization (CMP) System and Method for Planarizing a Wafer in a Single CMP Module

1198	US	6994609	Issued	Added	Chemical Mechanical Planarization System with Replaceable Pad Assembly
1202	US	7,077,731 B1	Issued	Added	Chemical Mechanical Planarization (CMP) System and Method for Preparing a Wafer in a Cleaning Module
1236	US		Issued	Added	Relative Lateral Motion in Linear CMP
1238	US		Issued		Polishing Pad Conditioning System
1246	US	6955588	Issued	Added	Method of and Platen for Controlling Removal Rate Characteristics in Chemical Mechanical Planarization
1249	US	6969307	Issued		Polishing Pad Conditioning and Polishing Liquid Dispersal System
1250	US	6935938	Issued	Added	Multiple-Conditioning Member Device for Chemical Mechanical Planarization Conditioning
1253	US	7108591	Issued	Added	Compliant Wafer Chuck
1259	US	10882750	Pending	Added	Slurry Delivery Zonal Control for CMP System
1268	US	7153182	Issued	Added	System and Method for In Situ Characterization and Maintenance of Polishing Pad Smoothness in Chemical Mechanical Polishing
1284	US	6951503	Issued	Added	System and Method for In-Situ Measuring and Monitoring Polishing CMP Pad Thickness
1292	US	7040970	Issued	Added	Apparatus and Method for Distributing a Polishing Fluid
1296	TW	94132820	Allowed	Added	Semiconductor Wafer Material Removal Apparatus and Method for Operating the Same
1296	US	7048608	Issued	Added	Semiconductor Wafer Material Removal Apparatus and Method for Operating the Same
1296	MY	20054425	Pending	Added	Semiconductor Wafer Material Removal Apparatus and Method for Operating the Same
1311	US	7014539	Issued	Added	Method and Apparatus for Minimizing Agglomerate Particle Size in a Polishing Fluid
1324	US	7040954	Issued	Added	Methods of and Apparatus For Controlling Polishing Surface Characteristics For Chemical Mechanical Polishing