

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT7421610

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
ENTEGRIS, INC.	07/06/2022
ENTEGRIS GP, INC.	07/06/2022
POCO GRAPHITE, INC.	07/06/2022
CMC MATERIALS, INC.	07/06/2022
INTERNATIONAL TEST SOLUTIONS, LLC	07/06/2022
QED TECHNOLOGIES INTERNATIONAL, INC.	07/06/2022

RECEIVING PARTY DATA

Name:	TRUIST BANK, AS NOTES COLLATERAL AGENT
Street Address:	2713 FOREST HILLS ROAD, S.W., BUILDING 2, FLOOR 2
City:	WILSON
State/Country:	NORTH CAROLINA
Postal Code:	27894

PROPERTY NUMBERS Total: 1100

Property Type	Number
Patent Number:	6644477
Patent Number:	6712213
Patent Number:	6716271
Patent Number:	6743278
Patent Number:	6749067
Patent Number:	6758104
Patent Number:	6758339
Patent Number:	6767830
Patent Number:	6770117
Patent Number:	6794671
Patent Number:	6825916
Patent Number:	6845788
Patent Number:	6848578
Patent Number:	6849200
Patent Number:	6852390

PATENT

Property Type	Number
Patent Number:	6857447
Patent Number:	6880592
Patent Number:	6880718
Patent Number:	6909839
Patent Number:	6909973
Patent Number:	6921062
Patent Number:	6923198
Patent Number:	6923216
Patent Number:	6926937
Patent Number:	6935354
Patent Number:	6939394
Patent Number:	6951284
Patent Number:	6955185
Patent Number:	6955198
Patent Number:	6955382
Patent Number:	6960675
Patent Number:	6973375
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Patent Number:	6989457
Patent Number:	6991671
Patent Number:	6994217
Patent Number:	7011614
Patent Number:	7025234
Patent Number:	7052809
Patent Number:	7058519
Patent Number:	7063304
Patent Number:	7094284
Patent Number:	7100772
Patent Number:	7101479
Patent Number:	7104292
Patent Number:	7107128
Patent Number:	7112237
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Patent Number:	7129519
Patent Number:	7132011
Patent Number:	7138053
Patent Number:	7152781
Patent Number:	7155983

Property Type	Number
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Patent Number:	7169302
Patent Number:	7172096
Patent Number:	7172918
Patent Number:	7182203
Patent Number:	7188644
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Patent Number:	7198815
Patent Number:	7201276
Patent Number:	7208427
Patent Number:	7219802
Patent Number:	7253002
Patent Number:	7268864
Patent Number:	7284564
Patent Number:	7285308
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Patent Number:	7347329
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Patent Number:	7370791
Patent Number:	7371878
Patent Number:	7381243

Property Type	Number
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Patent Number:	7400383
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Patent Number:	7406979
Patent Number:	7407708
Patent Number:	7422107
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Patent Number:	7437060
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Patent Number:	7456488
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Patent Number:	7485169
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Patent Number:	7610117
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Property Type	Number
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Patent Number:	7717405
Patent Number:	7740024
Patent Number:	7750173
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Patent Number:	7786320
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Patent Number:	7960328
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Patent Number:	7967882
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Patent Number:	7994108
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Patent Number:	8268665
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Patent Number:	8533895
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Patent Number:	8574675
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Patent Number:	8603632
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Patent Number:	8668093
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Patent Number:	9234628
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Patent Number:	9422513
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Patent Number:	9764268
Patent Number:	9764298
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Patent Number:	9802142
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Patent Number:	9997362
Patent Number:	9997388
Patent Number:	10002772
Patent Number:	10031114
Patent Number:	10032660
Patent Number:	10040226
Patent Number:	10043658
Patent Number:	10043696
Patent Number:	10081000
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Patent Number:	10127094
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Patent Number:	10329663
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Property Type	Number
Patent Number:	10443999
Patent Number:	10446389
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Patent Number:	10453744
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Property Type	Number
Patent Number:	10723525
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Patent Number:	10770330
Patent Number:	10784135
Patent Number:	10786776
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Patent Number:	11052347
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Patent Number:	D801046
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Patent Number:	D815385
Patent Number:	D917825
Patent Number:	D956923
Application Number:	14114868
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Property Type	Number
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Patent Number:	9211493
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Patent Number:	7311862
Patent Number:	7377840
Patent Number:	7425172
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Patent Number:	11318550
Application Number:	16283613
Application Number:	16438162
Application Number:	16460877
Application Number:	16460918
Application Number:	16460929
Application Number:	16794068
Application Number:	17540943

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 800-494-5225

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Correspondent Name: JAY DASILVA

Address Line 1: 1025 CONNECTICUT AVE., NW, STE. 712

Address Line 2: COGENCY GLOBAL INC.

Address Line 4: WASHINGTON, D.C. 20036

ATTORNEY DOCKET NUMBER:	1735218 PAT A
NAME OF SUBMITTER:	SHARIF HAMIDI
SIGNATURE:	/Sharif Hamidi/
DATE SIGNED:	07/08/2022

Total Attachments: 79

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PATENT AND TRADEMARK SECURITY AGREEMENT dated as of July 6, 2022 (this “**Agreement**”), among ENTEGRIS, INC., a Delaware corporation (the “**Issuer**”), the other GRANTORS from time to time party hereto and TRUIST BANK, as Notes Collateral Agent for the Secured Notes Secured Parties.

Reference is made to (a) that certain Indenture dated as of April 14, 2022, between Entegris Escrow Corporation, a Delaware corporation (the “**Escrow Issuer**”), and Truist Bank, as Trustee and Notes Collateral Agent (the “**Base Indenture**”), (b) that certain First Supplemental Indenture dated as of July 6, 2022, by and among the Issuer, the Escrow Issuer, the other guarantors party thereto and Truist Bank, as Trustee and Notes Collateral Agent (together with the Base Indenture and as further amended, restated, supplemented or otherwise modified from time to time, the “**Indenture**”), and (c) the Security Agreement referred to therein. The Grantors party hereto are executing this Agreement in accordance with the requirements of the Indenture and the Security Agreement. The Grantors party hereto are (or are Affiliates of) the Issuer, and will derive substantial direct and indirect benefits from the transactions contemplated by the Indenture.

Accordingly, the parties hereto agree as follows:

SECTION 1. Terms. Each capitalized term used but not otherwise defined herein shall have the meaning specified in the Indenture or the Security Agreement, as applicable. The rules of construction specified in Section 101 of the Indenture also apply to this Agreement, mutatis mutandis.

SECTION 2. Grant of Security Interest. As security for the payment and performance in full of the Obligations, each Grantor pursuant to the Security Agreement did, and hereby does, grant to the Notes Collateral Agent, its successors and assigns, for the benefit of the Secured Notes Secured Parties, a security interest in all of such Grantor’s right, title and interest in, to and under any and all of the following assets now owned or at any time hereafter acquired by such Grantor or in, to or under which such Grantor now has or at any time hereafter may acquire any right, title or interest (collectively, the “**Patent and Trademark Collateral**”):

(a) (i) all letters patent of the United States of America or the equivalent thereof in any other country, all registrations and recordings thereof and all applications for letters patent of the United States of America or the equivalent thereof in any other country or any political subdivision thereof, including registrations, recordings and pending applications in the United States Patent and Trademark Office or any similar offices in any other country or any political subdivision thereof, including, in the case of any Grantor, any of the foregoing set forth under its name on Schedule I hereto, and (ii) all reissues, continuations, divisionals, continuations-in-part, reexaminations, supplemental examinations, inter partes reviews, renewals, adjustments or extensions thereof, and the inventions disclosed or claimed therein, including the right to make, have made, use, sell, offer to sell, import or export the inventions disclosed or claimed therein; and

(b) (i) all trademarks, service marks, trade names, corporate names, company names, business names, fictitious business names, trade styles, trade dress, logos, domain names, global top level domain names, other source or business identifiers, designs and

general intangibles of like nature, all registrations and recordings thereof, and all registration and recording applications filed in connection therewith, including registrations and registration applications in the United States Patent and Trademark Office or any similar office in any State of the United States of America or any other country or any political subdivision thereof, all extensions or renewals thereof, and all common law rights related thereto, including, in the case of any Grantor, any of the foregoing set forth under its name on Schedule II hereto, (ii) all goodwill associated therewith or symbolized thereby and (iii) all other assets, rights and interests that uniquely reflect or embody such goodwill.

SECTION 3. Security Agreement. The security interests granted to the Notes Collateral Agent herein are granted in furtherance of, and not in limitation of, the security interests granted to the Notes Collateral Agent pursuant to the Security Agreement. Each Grantor hereby acknowledges and affirms that the rights and remedies of the Notes Collateral Agent with respect to the Patent and Trademark Collateral are more fully set forth in the Security Agreement, the terms and provisions of which are hereby incorporated herein by reference as if fully set forth herein. In the event of any conflict between the terms of this Agreement and the Security Agreement, the terms of the Security Agreement shall govern.

SECTION 4. Incorporation by Reference. The provisions of Sections 6.02, 6.04, 6.05, 6.06, 6.08, 6.09, 6.10 and 6.19 of the Security Agreement are hereby incorporated by reference herein as if set forth in full force herein, mutatis mutandis.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement as of the day and year first above written.

ENTEGRIS, INC., as Grantor

By: DocuSigned by:
 _____
23BA975C0B4A4E9... / B. Graves
Title: Executive Vice President, Chief
Financial Officer and Treasurer

ENTEGRIS GP, INC., as Grantor

By: DocuSigned by:
 _____
23BA975C0B4A4E9... / B. Graves
Title: Vice President and Treasurer

POCO GRAPHITE, INC., as Grantor

By: DocuSigned by:
 _____
23BA975C0B4A4E9... / B. Graves
Title: Vice President and Treasurer

CMC MATERIALS, INC.,
as Grantor

DocuSigned by:

By:



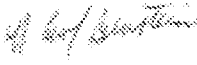
Name: Gregory B. Graves

Title: Executive Vice President and
Chief Financial Officer

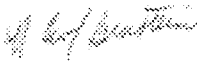
[Signature Page to Patent and Trademark Security Agreement]

PATENT
REEL: 060613 FRAME: 0107

INTERNATIONAL TEST SOLUTIONS, LLC,
as Grantor

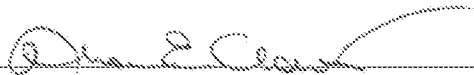
By: 
Name: H. Carol Bernstein
Title: Vice President, Secretary and General Counsel

**QED TECHNOLOGIES INTERNATIONAL,
INC.,** as Grantor

By: 
Name: H. Carol Bernstein
Title: Vice President, Secretary and General Counsel

[Signature Page to Patent and Trademark Security Agreement]

TRUIST BANK, as Notes Collateral Agent

By: 
Name: Thomas Clower
Title: Vice President

SCHEDULE I

PATENTS OWNED BY ENTEGRIS, INC.

Patents

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Wafer Container Cushion System	6644477	12/11/2002
Entegris, Inc.	Wafer Carrier Door And Latching Mechanism With Hourglass Shaped Key Slot	6712213	12/2/2002
Entegris, Inc.	Apparatus And Method For Inhibiting Decomposition Of Germane	6716271	10/29/2002
Entegris, Inc.	Gas Storage And Dispensing System With Monolithic Carbon Adsorbent	6743278	12/10/2002
Entegris, Inc.	Wafer Carrier Door With Form Fitting Mechanism Cover	6749067	1/14/2003
Entegris, Inc.	Fluoropolymer Flowmeter	6758104	5/28/2002
Entegris, Inc.	Thin Wafer Carrier	6758339	7/11/2002
Entegris, Inc.	Br2SbCH3 A Solid Source Ion Implant And CVD Precursor	6767830	8/7/2002
Entegris, Inc.	Ion Implantation And Wet Bench Systems Utilizing Exhaust Gas Recirculation	6770117	10/31/2002
Entegris, Inc.	Sensors And Methods For High-Sensitivity Optical Particle Counting And Sizing	6794671	7/17/2002
Entegris, Inc.	Reticle Carrier	6825916	7/5/2002
Entegris, Inc.	Fluid Handling Component With Ultraphobic Surfaces	6845788	4/15/2003
Entegris, Inc.	Wafer Enclosure Sealing Arrangement For Wafer Containers	6848578	11/13/2002
Entegris, Inc.	Composition And Process For Wet Stripping Removal Of Sacrificial Anti-Reflective Material	6849200	7/23/2002
Entegris, Inc.	Ultraphobic Surface For High Pressure Liquids	6852390	6/3/2003
Entegris, Inc.	Pressure-Based Gas Delivery System And Method For Reducing Risks Associated With Storage And Delivery Of High Pressure Gases	6857447	6/10/2002
Entegris, Inc.	Canister Guard	6880592	6/26/2003
Entegris, Inc.	Wafer Carrier Door And Spring Biased Latching Mechanism	6880718	12/11/2002
Entegris, Inc.	Delivery Systems For Efficient Vaporization Of Precursor Source Material	6909839	7/23/2003

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Photometrically Modulated Delivery Of Reagents	6909973	8/14/2003
Entegris, Inc.	Vaporizer Delivery Ampoule	6921062	7/23/2002
Entegris, Inc.	Fully Drainable Weir Valve	6923198	3/17/2003
Entegris, Inc.	Microfluidic Device With Ultraphobic Surfaces	6923216	8/29/2003
Entegris, Inc.	Matrix Tray With Tacky Surfaces	6926937	9/11/2002
Entegris, Inc.	Permeable Gas Assembly For Gas Delivery	6935354	12/9/2002
Entegris, Inc.	Gas Storage And Dispensing System With Monolithic Carbon Adsorbent	6939394	1/29/2004
Entegris, Inc.	Wafer Carrier With Wafer Retaining System	6951284	11/14/2002
Entegris, Inc.	High Volume Dispense Head With Seal Verification And Low Foam Return Line	6955185	7/11/2002
Entegris, Inc.	Auto-Switching System For Switch-Over Of Gas Storage And Dispensing Vessels In A Multi-Vessel Array	6955198	9/9/2003
Entegris, Inc.	Wafer Carrier Door And Latching Mechanism With C-Shaped Cam Follower	6955382	12/11/2002
Entegris, Inc.	Tantalum Amide Complexes For Depositing Tantalum-Containing Films, And Method Of Making Same	6960675	10/14/2003
Entegris, Inc.	System And Method For Flow Monitoring And Control	6973375	2/12/2004
Entegris, Inc.	Fluoropolymer Flowmeter	6973705	7/2/2004
Entegris, Inc.	Chemical Vapor Deposition Precursors For Deposition Of Tantalum-Based Materials	6989457	1/16/2003
Entegris, Inc.	Rectangular Parallelepiped Fluid Storage And Dispensing Vessel	6991671	12/9/2002
Entegris, Inc.	Shipper With Tooth Design For Improved Loading	6994217	10/12/2004
Entegris, Inc.	Infrared Thermopile Detector System For Semiconductor Process Monitoring And Control	7011614	7/18/2003
Entegris, Inc.	Apparatus And Method For Dispensing High-Viscosity Liquid	7025234	9/19/2002
Entegris, Inc.	Membrane And Reticle-Pellicle Apparatus With Purged Pellicle-To-Reticle Gap Using Same	7052809	10/2/2003
Entegris, Inc.	Photometrically Modulated Delivery Of Reagents	7058519	6/21/2005
Entegris, Inc.	Extended Stroke Valve And Diaphragm	7063304	7/8/2004
Entegris, Inc.	Source Reagent Compositions For CVD Formation Of High Dielectric Constant	7094284	7/17/2001

Registered Owner	Title	Registration Number	Date Filed
	And Ferroelectric Metal Oxide Thin Films And Method Of Using Same		
Entegris, Inc.	Wafer Container With Door Actuated Wafer Restraint	7100772	11/15/2004
Entegris, Inc.	Filter Cartridge Construction	7101479	3/6/2003
Entegris, Inc.	Auto-Switching System For Switch-Over Of Gas Storage And Dispensing Vessels In A Multi-Vessel Array	7104292	10/18/2005
Entegris, Inc.	System For Controlling Fluid Flow	7107128	2/13/2004
Entegris, Inc.	Porous Sintered Composite Materials	7112237	12/11/2003
Entegris, Inc.	Lithographic Projection Apparatus, Gas Purging Method, Device Manufacturing Method, And Purge Gas Supply System	7113254	7/20/2004
Entegris, Inc.	Monitoring System Comprising Infrared Thermopile Detector	7129519	9/23/2003
Entegris, Inc.	Reactive Gas Filter	7132011	9/2/2003
Entegris, Inc.	Filter Device	7138053	3/6/2003
Entegris, Inc.	Manufacturing System With Intrinsically Safe Electric Information Storage	7152781	12/1/2003
Entegris, Inc.	Magnetic Flow Meter With Unibody Construction And Conductive Polymer Electrodes	7155983	2/4/2005
Entegris, Inc.	Wafer Carrier Door And Spring Biased Latching Mechanism	7168587	4/19/2005
Entegris, Inc.	Filter Cartridge Construction	7169302	2/11/2003
Entegris, Inc.	Liquid Dispensing System	7172096	11/15/2004
Entegris, Inc.	Infrared Thermopile Detector System For Semiconductor Process Monitoring And Control	7172918	12/9/2003
Entegris, Inc.	Wafer Container And Door With Vibration Dampening Latching Mechanism	7182203	11/5/2004
Entegris, Inc.	Apparatus And Method For Minimizing The Generation Of Particles In Ultrapure Liquids	7188644	5/3/2002
Entegris, Inc.	Method For The Removal Of Airborne Molecular Contaminants Using Oxygen Gas Mixtures	7189291	10/10/2003
Entegris, Inc.	Tantalum Amide Complexes For Depositing Tantalum-Containing Films, And Method Of Making Same	7198815	9/12/2005
Entegris, Inc.	Front Opening Substrate Container With Bottom Plate	7201276	11/5/2004

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Precursor Compositions And Processes For MOCVD Of Barrier Materials In Semiconductor Manufacturing	7208427	8/18/2003
Entegris, Inc.	Thin Wafer Insert	7219802	3/28/2002
Entegris, Inc.	Fluid Storage And Dispensing Vessels Having Colorimetrically Verifiable Leak-Tightness, And Method Of Making Same	7253002	11/3/2003
Entegris, Inc.	Method For A Liquid Chemical Concentration Analysis System	7268864	7/21/2006
Entegris, Inc.	Gas Storage And Dispensing System For Variable Conductance Dispensing Of Gas At Constant Flow Rate	7284564	12/19/2005
Entegris, Inc.	Chemical Vapor Deposition Of High Conductivity, Adherent Thin Films Of Ruthenium	7285308	3/18/2004
Entegris, Inc.	Fluid Flow Measuring And Proportional Fluid Flow Control Device	7292945	7/18/2003
Entegris, Inc.	Methods And Apparatus For Electrophoretic Mobility Determination Using Phase Light Scattering Analysis	7295311	12/1/2004
Entegris, Inc.	Method And Apparatus To Help Promote Contact Of Gas With Vaporized Material	7300038	6/1/2004
Entegris, Inc.	Passivative Chemical Mechanical Polishing Composition For Copper Film Planarization	7300601	12/10/2002
Entegris, Inc.	Exchange Apparatus	7308932	9/26/2002
Entegris, Inc.	Metal Ion Concentration Analysis For Liquids	7317533	1/14/2005
Entegris, Inc.	System For Controlling Fluid Flow Based On A Valve Break Point	7317971	8/10/2006
Entegris, Inc.	Apparatus For A Liquid Chemical Concentration Analysis System	7319523	9/26/2005
Entegris, Inc.	In-Situ Gas Blending And Dilution System For Delivery Of Dilute Gas At A Predetermined Concentration	7325560	6/15/2006
Entegris, Inc.	Wafer Container And Door With Cam Latching Mechanism	7325693	11/15/2004
Entegris, Inc.	Pressure-Based Gas Delivery System And Method For Reducing Risks Associated With Storage And Delivery Of High Pressure Gases	7328716	2/22/2005
Entegris, Inc.	Substrate Container With Fluid-Sealing Flow Passageway	7328727	4/17/2005

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Air Handling And Chemical Filtration System And Method	7329308	7/9/2004
Entegris, Inc.	Porous Sintered Composite Materials	7329311	8/10/2006
Entegris, Inc.	Polytetrafluoroethylene Treatment	7335721	6/13/2006
Entegris, Inc.	Porogen Material	7342295	3/3/2005
Entegris, Inc.	Magnetic Flow Meter With Unibody Construction And Conductive Polymer Electrodes	7343817	5/31/2007
Entegris, Inc.	Wafer Carrier With Apertured Door For Cleaning	7344030	11/5/2004
Entegris, Inc.	Substrate Carrier	7347329	10/22/2004
Entegris, Inc.	Aqueous Cleaner With Low Metal Etch Rate Comprising Alkanolamine And Tetraalkylammonium Hydroxide	7365045	3/30/2005
Entegris, Inc.	Manufacturing System With Intrinsically Safe Electric Information Storage	7370791	12/22/2006
Entegris, Inc.	Tantalum Amide Complexes For Depositing Tantalum-Containing Films, And Method Of Making Same	7371878	1/23/2007
Entegris, Inc.	Method For Purifying Carbon Dioxide	7381243	10/16/2003
Entegris, Inc.	Lithographic Projection Apparatus, Gas Purging Method And Device Manufacturing Method And Purge Gas Supply System	7384149	7/21/2003
Entegris, Inc.	Method And Apparatus For A Liquid Chemical Concentration Analysis System	7397547	7/21/2006
Entegris, Inc.	Environmental Control In A Reticle SMIF Pod	7400383	4/3/2006
Entegris, Inc.	Filter Device Including Pleated Filter Incorporated In A Housing	7404493	3/23/2005
Entegris, Inc.	Gas Delivery System With Integrated Valve Manifold Functionality For Sub-Atmospheric And Super-Atmospheric Pressure Applications	7406979	5/30/2006
Entegris, Inc.	High-Strength, Chemically Resistant Laminar Film With Limited Extractables	7407708	9/18/2002
Entegris, Inc.	Kinematic Coupling With Textured Contact Surfaces	7422107	1/25/2006
Entegris, Inc.	Stabilized Cyclosiloxanes For Use As CVD Precursors For Low-Dielectric Constant Thin Films	7423166	8/28/2003
Entegris, Inc.	Systems And Methods For Detecting Contaminants	7430893	12/1/2004

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Delivery Systems For Efficient Vaporization Of Precursor Source Material	7437060	6/21/2005
Entegris, Inc.	Composition And Method For Low Temperature Deposition Of Silicon-Containing Films	7446217	10/31/2003
Entegris, Inc.	Fluid Flow Measuring And Proportional Fluid Flow Control Device	7447600	7/18/2003
Entegris, Inc.	Gas Storage And Dispensing System With Monolithic Carbon Adsorbent	7455719	9/6/2005
Entegris, Inc.	Porogen Material	7456488	11/21/2002
Entegris, Inc.	Method For A Liquid Chemical Concentration Analysis System/Us	7471379	9/10/2007
Entegris, Inc.	Semiconductor Manufacturing Facility Utilizing Exhaust Recirculation	7485169	9/12/2006
Entegris, Inc.	Method And Apparatus To Help Promote Contact Of Gas With Vaporized Material	7487956	10/30/2007
Entegris, Inc.	Gas Storage And Dispensing System With Monolithic Carbon Adsorbent	7494530	4/11/2005
Entegris, Inc.	Sensors And Methods For High-Sensitivity Optical Particle Counting And Sizing	7496463	9/12/2006
Entegris, Inc.	Rectangular Parallelepiped Fluid Storage And Dispensing Vessel	7501010	9/15/2005
Entegris, Inc.	Hydride Gas Purification For The Semiconductor Industry	7510692	7/21/2004
Entegris, Inc.	Filter Cartridge Construction	7520984	3/6/2003
Entegris, Inc.	Wafer Container With Secondary Wafer Restraint System	7523830	11/22/2005
Entegris, Inc.	Composition And Method For Low Temperature Deposition Of Silicon-Containing Films Such As Films Including Silicon Nitride, Silicon Dioxide And/Or Silicon-Oxynitride	7531679	11/14/2002
Entegris, Inc.	Porous Sintered Composite Materials	7534287	12/10/2007
Entegris, Inc.	O-Ring-Less Low Profile Fittings And Fitting Assemblies	7547049	11/20/2006
Entegris, Inc.	Method And Apparatus To Help Promote Contact Of Gas With Vaporized Material	7556244	8/28/2007
Entegris, Inc.	Low-Profile Surface Mount Filter	7575616	2/10/2006
Entegris, Inc.	Wafer Container With Sealable Door	7578407	4/17/2005
Entegris, Inc.	Monosilane Or Disilane Derivatives And Method For Low Temperature Deposition Of Silicon-Containing Films Using The Same	7579496	10/10/2003

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Composition And Method For Low Temperature Chemical Vapor Deposition Of Silicon-Containing Films Including Silicon Carbonitride And Silicon Oxycarbonitride Films	7601860	6/17/2004
Entegris, Inc.	Aqueous Ammonium Fluoride And Amine Containing Compositions For Cleaning Inorganic Residues On Semiconductor Substrates	7605113	5/24/2005
Entegris, Inc.	Reticle Pod With Isolation System	7607543	2/26/2006
Entegris, Inc.	System And Method For Flow Monitoring And Control	7610117	9/19/2005
Entegris, Inc.	Pressure-Based Gas Delivery System And Method For Reducing Risks Associated With Storage And Delivery Of High Pressure Gases	7614421	2/23/2006
Entegris, Inc.	Precursor Compositions For Atomic Layer Deposition And Chemical Vapor Deposition Of Titanate, Lanthanate, And Tantalate Dielectric Films	7638074	3/12/2007
Entegris, Inc.	Wafer Container And Door With Vibration Dampening Latching Mechanism	7677393	1/10/2007
Entegris, Inc.	Gas Delivery System With Integrated Valve Manifold Functionality For Sub-Atmospheric And Super-Atmospheric Pressure Applications	7694691	8/5/2008
Entegris, Inc.	Photometrically Modulated Delivery Of Reagents	7711496	5/13/2008
Entegris, Inc.	Composition And Method For Low Temperature Deposition Of Silicon-Containing Films	7713346	10/7/2008
Entegris, Inc.	Hollow Fiber Membrane Contact Apparatus And Process	7717405	3/6/2003
Entegris, Inc.	System And Method For Flow Monitoring And Control	7740024	2/9/2005
Entegris, Inc.	Tantalum Amido-Complexes With Chelate Ligands Useful For CVD And ALD Of TaN And Ta ₂ O ₅ Thin Films	7750173	1/12/2008
Entegris, Inc.	Identification Tag For Fluid Containment Drum	7760104	4/7/2006
Entegris, Inc.	Composition And Method For Low Temperature Chemical Vapor Deposition Of Silicon-Containing Films Including	7781605	10/13/2009

Registered Owner	Title	Registration Number	Date Filed
	Silicon Carbonitride And Silicon Oxycarbonitride Films		
Entegris, Inc.	Composition And Method For Low Temperature Deposition Of Silicon-Containing Films Such As Films Including Silicon, Silicon Nitride, Silicon Dioxide And/Or Silicon-Oxynitride	7786320	5/12/2009
Entegris, Inc.	Drum Cap Venting Device	7806151	4/4/2006
Entegris, Inc.	Low-Profile Surface Mount Filter	7806949	7/27/2009
Entegris, Inc.	System And Method For Optimizing And Simulating Thermal Management Systems And Predictive Flow Control	7822586	8/11/2004
Entegris, Inc.	Self-Regenerative Process For Contaminant Removal From Ammonia	7824628	5/7/2002
Entegris, Inc.	Method And Apparatus To Help Promote Contact Of Gas With Vaporized Material	7828274	1/23/2009
Entegris, Inc.	Antimony And Germanium Complexes Useful For CVD/ALD Of Metal Thin Films	7838329	5/12/2007
Entegris, Inc.	System And Method For Control Of Fluid Pressure	7850431	12/2/2005
Entegris, Inc.	Nanoporous Articles And Methods Of Making Same	7862646	1/29/2007
Entegris, Inc.	Monosilane Or Disilane Derivatives And Method For Low Temperature Deposition Of Silicon-Containing Films Using The Same	7863203	1/24/2008
Entegris, Inc.	Chemically Inert Flow Controller With Non-Contaminating Body	7866337	7/7/2006
Entegris, Inc.	Front Opening Substrate Container With Bottom Plate	7866480	4/10/2007
Entegris, Inc.	System And Method For Monitoring Operation Of A Pump	7878765	2/28/2006
Entegris, Inc.	Fluid Flow Measuring And Proportional Fluid Flow Control Device	7885773	8/31/2007
Entegris, Inc.	Front Opening Wafer Carrier With Path To Ground Effectuated By Door	7886910	11/26/2002
Entegris, Inc.	Composition And Method For Low Temperature Deposition Of Silicon-Containing Films	7887883	5/11/2010
Entegris, Inc.	Resist, Barc And Gap Fill Material Stripping Chemical And Method	7888301	12/1/2004
Entegris, Inc.	Error Volume System And Method For A Pump	7897196	11/20/2006

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Wafer Container With Door Actuated Wafer Restraint	7900776	9/1/2006
Entegris, Inc.	Composition And Method For Low Temperature Deposition Of Silicon-Containing Films Such As Films Including Silicon, Silicon Nitride, Silicon Dioxide And/Or Silicon-Oxynitride	7910765	7/17/2010
Entegris, Inc.	Filtering System For A Semiconductor Processing Tool	7922791	7/13/2007
Entegris, Inc.	Oxidizing Aqueous Cleaner For The Removal Of Post-Etch Residues	7922824	10/4/2006
Entegris, Inc.	Photometrically Modulated Delivery Of Reagents	7925450	5/4/2010
Entegris, Inc.	I/O Systems, Methods, And Devices For Interfacing A Pump Controller	7940664	11/20/2006
Entegris, Inc.	Network Interface Device	7941565	5/2/2008
Entegris, Inc.	Fluid Handling Device With Isolating Chamber	7942069	3/8/2007
Entegris, Inc.	Boron Ion Implantation Using Alternative Fluorinated Boron Precursors, And Formation Of Large Boron Hydrides For Implantation	7943204	8/30/2006
Entegris, Inc.	Fluid Storage And Dispensing Systems, And Fluid Supply Processes Comprising Same	7951225	5/3/2006
Entegris, Inc.	Fluid Storage And Dispensing System Including Dynamic Fluid Monitoring Of Fluid Storage And Dispensing Vessel	7955797	10/25/2004
Entegris, Inc.	Composition And Method For Recycling Semiconductor Wafers Having Low-K Dielectric Materials Thereon	7960328	11/9/2006
Entegris, Inc.	Atmospheric Pressure Microwave Plasma Treated Porous Membranes	7963401	3/28/2007
Entegris, Inc.	Copper Precursors For CVD\ALD\Digital CVD Of Copper Metal Films	7964746	3/30/2008
Entegris, Inc.	Fluid Storage And Dispensing System Including Dynamic Fluid Monitoring Of Fluid Storage And Dispensing Vessel	7966879	10/24/2005
Entegris, Inc.	Low-Profile Surface Mount Filter	7967882	10/4/2010
Entegris, Inc.	Rectangular Parallelepiped Fluid Storage And Dispensing Vessel	7972421	3/10/2009
Entegris, Inc.	Methods And Materials For Making A Monolithic Porous Pad Cast Onto A Rotatable Base	7984526	7/13/2004

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Composition Useful For Removal Of Post-Etch Photoresist And Bottom Anti-Reflection Coatings	7994108	1/9/2006
Entegris, Inc.	Filter Apparatus Capable Of Releasing Air	7997420	8/13/2007
Entegris, Inc.	Gas Storage And Dispensing System With Monolithic Carbon Adsorbent	8002880	2/24/2009
Entegris, Inc.	Fluid Storage And Dispensing Vessels Having Colorimetrically Verifiable Leak-Tightness, And Method Of Making Same	8003391	6/30/2007
Entegris, Inc.	Antimony And Germanium Complexes Useful For CVD/ALD Of Metal Thin Films	8008117	8/22/2010
Entegris, Inc.	Diamond Like Carbon Coating Of A Substrate Housing	8012586	6/14/2007
Entegris, Inc.	System And Method For Flow Monitoring And Control	8015995	5/10/2010
Entegris, Inc.	System And Method For Valve Sequencing In A Pump	8025486	11/20/2006
Entegris, Inc.	Low pH Mixtures For The Removal Of High Density Implanted Resist	8026200	5/1/2009
Entegris, Inc.	System And Method For Pressure Compensation In A Pump	8029247	11/20/2006
Entegris, Inc.	Chemical Vapor Deposition Of High Conductivity, Adherent Thin Films Of Ruthenium	8034407	5/17/2007
Entegris, Inc.	Isotopically-Enriched Boron-Containing Compounds, And Methods Of Making And Using Same	8062965	3/15/2011
Entegris, Inc.	System For Controlling Valve Fluid Flow Based On Rate Of Change Of Close Rate Acceleration	8082066	11/9/2007
Entegris, Inc.	System And Method For Position Control Of A Mechanical Piston In A Pump	8083498	11/20/2006
Entegris, Inc.	System And Method For A Pump With Reduced Form Factor	8087429	11/20/2006
Entegris, Inc.	Exchange Apparatus	8091618	10/31/2007
Entegris, Inc.	Molded Rotatable Base For A Porous Pad	8092730	11/21/2006
Entegris, Inc.	Amorphous GeTe Deposition Process	8093140	10/31/2008
Entegris, Inc.	Method And Apparatus To Help Promote Contact Of Gas With Vaporized Material	8128073	11/5/2010
Entegris, Inc.	Isotopically-Enriched Boron-Containing Compounds, And Methods Of Making And Using Same	8138071	10/27/2010
Entegris, Inc.	Thin Wafer Insert	8141712	4/13/2007

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Purge System For A Substrate Container	8146623	2/28/2008
Entegris, Inc.	Fluid Storage And Dispensing Vessels Having Colorimetrically Verifiable Leak-Tightness And Method Of Making Same	8153434	8/5/2011
Entegris, Inc.	Composition And Method For Low Temperature Deposition Of Silicon-Containing Films Such As Films Including Silicon, Silicon Nitride, Silicon Dioxide And/Or Silicon-Oxynitride	8153833	3/22/2011
Entegris, Inc.	Fluid Flow Measuring And Proportional Fluid Flow Control Device	8155896	1/28/2011
Entegris, Inc.	Filter Apparatus Capable Of Releasing Air	8167140	6/24/2011
Entegris, Inc.	Apparatus And Method For Reducing Particle Contamination In A Vacuum Chamber	8172923	1/21/2009
Entegris, Inc.	Precursor Compositions For Atomic Layer Deposition And Chemical Vapor Deposition Of Titanate, Lanthanate, And Tantalate Dielectric Films	8206784	11/16/2009
Entegris, Inc.	Nanoporous Articles And Methods Of Making Same	8221532	1/4/2011
Entegris, Inc.	Reticle Pod	8231005	3/12/2007
Entegris, Inc.	Composition And Method For Low Temperature Deposition Of Silicon-Containing Materials	8236097	2/15/2011
Entegris, Inc.	Photoresist Removal	8236485	3/14/2003
Entegris, Inc.	Chemical Vapor Deposition Of High Conductivity, Adherent Thin Films Of Ruthenium	8241704	4/19/2011
Entegris, Inc.	Monosilane Or Disilane Derivatives And Method For Low Temperature Deposition Of Silicon-Containing Films Using The Same	8242032	1/4/2011
Entegris, Inc.	Photometrically Modulated Delivery Of Reagents	8244482	4/12/2011
Entegris, Inc.	Antimony And Germanium Complexes Useful For CVD/ALD Of Metal Thin Films	8268665	3/12/2007
Entegris, Inc.	Front Opening Wafer Carrier With Path To Ground Effectuated By Door	8276759	11/26/2002
Entegris, Inc.	Fluid Storage And Dispensing Systems, And Fluid Supply Processes Comprising Same	8282023	5/3/2006

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Gas Storage And Dispensing System With Monolithic Carbon Adsorbent	8282714	8/23/2011
Entegris, Inc.	Shock Absorbing Substrate Container	8292077	2/5/2007
Entegris, Inc.	System And Method For A Variable Home Position Dispense System	8292598	11/21/2005
Entegris, Inc.	Barrier Fluoropolymer Film-Based Liners And Packaging Comprising Same	8313821	6/1/2007
Entegris, Inc.; Tokyo Electron Ltd.	Liner-Based Liquid Storage And Dispensing Systems With Empty Detection Capability	8322571	4/25/2006
Entegris, Inc.	High Concentration Nitrogen-Containing Germanium Telluride Based Memory Devices And Processes Of Making	8330136	12/4/2009
Entegris, Inc.	Liquid Dispensing Systems Encompassing Gas Removal	8336734	6/11/2007
Entegris, Inc.	Composition And Process For Post-Etch Removal Of Photoresist And/Or Sacrificial Anti-Reflective Material Deposited On A Substrate	8338087	3/3/2004
Entegris, Inc.	Removal Of Masking Material	8367555	12/11/2009
Entegris, Inc.	System And Method For Monitoring Operation Of A Pump	8382444	1/3/2011
Entegris, Inc.	Boron Ion Implantation Using Alternative Fluorinated Boron Precursors, And Formation Of Large Boron Hydrides For Implantation	8389068	8/30/2006
Entegris, Inc.	System And Method For Removing Contaminants	8398753	6/7/2005
Entegris, Inc.	Method And Apparatus For Enhanced Lifetime And Performance Of Ion Source In An Ion Implantation System	8399865	2/26/2011
Entegris, Inc.	Hollow GST Structure With Dielectric Fill	8410468	6/28/2010
Entegris, Inc.	Method And Apparatus To Help Promote Contact Of Gas With Vaporized Material	8444120	2/16/2012
Entegris, Inc.	Molded Rotatable Base For A Porous Pad	8460475	11/21/2006
Entegris, Inc.	Method Of Filling A Drum Having An RFID Identification Tag	8464499	7/20/2010
Entegris, Inc.	Rectangular Parallelepiped Fluid Storage And Dispensing Vessel	8506689	6/26/2011
Entegris, Inc.	Precursor Compositions For ALD/CVD Of Group II Ruthenate Thin Films	8524931	8/17/2009
Entegris, Inc.	Reusable Resilient Cushion For Wafer Container	8528738	6/12/2007

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Methods And Materials For Making A Monolithic Porous Pad Cast Onto A Rotatable Base	8533895	7/25/2011
Entegris, Inc.	Monosilane Or Disilane Derivatives And Method For Low Temperature Deposition Of Silicon-Containing Films Using The Same	8541318	2/9/2012
Entegris, Inc.	Fluid Storage And Dispensing System Including Dynamic Fluid Monitoring Of Fluid Storage And Dispensing Vessel	8555705	10/24/2005
Entegris, Inc.; University of Florida Research Foundation, Inc.	Chemical Mechanical Polishing Of Silicon Carbide Comprising Surfaces	8557133	11/28/2011
Entegris, Inc.	High-Volume Fluid Dispense System	8561855	4/7/2006
Entegris, Inc.	Method And Composition For Depositing Ruthenium With Assistive Metal Species	8574675	3/17/2010
Entegris, Inc.	Isotopically-Enriched Boron-Containing Compounds, And Methods Of Making And Using Same	8598022	11/19/2011
Entegris, Inc.	Sensing System And Method	8602640	5/20/2009
Entegris, Inc.	Cleaning Of Semiconductor Processing Systems	8603252	4/26/2007
Entegris, Inc.	Diamond Like Carbon Coating Of A Substrate Housing	8603632	6/14/2007
Entegris, Inc.	Reticle Pod	8613359	7/30/2012
Entegris, Inc.	Low Temperature GST Process	8617972	5/21/2010
Entegris, Inc.	Composition And Method For Recycling Semiconductor Wafers Having Low-K Dielectric Materials Thereon	8642526	5/9/2011
Entegris, Inc.	System And Method For A Pump With Reduced Form Factor	8651823	8/24/2011
Entegris, Inc.	System And Method For Monitoring Operation Of A Pump	8662859	9/14/2012
Entegris, Inc.	In Situ Generation Of RuO4 For ALD Of Ru And Ru Related Materials	8663735	2/13/2010
Entegris, Inc.	Method For Analysis Of Contaminants In A Process Fluid Stream	8664004	2/20/2004
Entegris, Inc.	Atmospheric Pressure Microwave Plasma Treated Porous Membranes	8668093	5/11/2011
Entegris, Inc.	Antimony Compounds Useful For Deposition Of Antimony-Containing Materials	8674127	4/30/2009

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	System And Method For Position Control Of A Mechanical Piston In A Pump	8678775	11/21/2011
Entegris, Inc.	PVDF Pyrolyzate Adsorbent And Gas Storage And Dispensing System Utilizing Same	8679231	12/17/2011
Entegris, Inc.	Photoresist Removal	8679734	8/7/2012
Entegris, Inc.	Method And System For Controlling Operation Of A Pump Based On Filter Information In A Filter Information Tag	8684705	2/26/2010
Entegris, Inc.	Antioxidants For Post-CMP Cleaning Formulations	8685909	3/23/2009
Entegris, Inc.	Antioxidants For Post-CMP Cleaning Formulations	RE8685909	3/23/2009
Entegris, Inc.	Welded Diaphragm Valve	8689817	1/4/2007
Entegris, Inc.	Antimony And Germanium Complexes Useful For CVD/ALD Of Metal Thin Films	8709863	9/18/2012
Entegris, Inc.	Valve Manifold Assembly	8726935	7/13/2007
Entegris, Inc.	Substrate Container With Fluid-Sealing Flow Passageway	8727125	2/5/2008
Entegris, Inc.	Method And System For Optimizing Operation Of A Pump	8727744	2/26/2010
Entegris, Inc.	Closure\Connector For Liner-Based Dispense Containers	8733598	12/30/2010
Entegris, Inc.	Method And System For High Viscosity Pump	8753097	7/14/2008
Entegris, Inc.	Multilayer Porous Membrane And Process	8758887	12/21/2005
Entegris, Inc.	Oxidizing Aqueous Cleaner For The Removal Of Post-Etch Residues	8765654	4/11/2011
Entegris, Inc.	Systems For Purging Reticle Storage	8776841	6/19/2007
Entegris, Inc.	Method And Apparatus For Treating Fluids To Reduce Microbubbles	8777189	4/25/2006
Entegris, Inc.	Compositions And Methods For The Selective Removal Of Silicon Nitride	8778210	12/21/2007
Entegris, Inc.	Enriched Silicon Precursor Compositions And Apparatus And Processes For Utilizing Same	8779383	5/21/2013
Entegris, Inc.	Wafer Container With Tubular Environmental Control Components	8783463	3/13/2009
Entegris, Inc.	Precursor Compositions For Atomic Layer Deposition And Chemical Vapor Deposition Of Titanate, Lanthanate, And Tantalate Dielectric Films	8784936	2/9/2012

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Method And Apparatus For Enhanced Lifetime And Performance Of Ion Source In An Ion Implantation System	8785889	3/15/2013
Entegris, Inc.	Atmospheric Pressure Microwave Plasma Treated Porous Membranes	8789708	10/30/2013
Entegris, Inc.	Ion Implantation System And Method	8796131	10/25/2010
Entegris, Inc.	Composition And Method For Low Temperature Chemical Vapor Deposition Of Silicon-Containing Films Including Silicon Carbonitride And Silicon Oxycarbonitride Films	8802882	8/24/2010
Entegris, Inc.	System And Method For A Variable Home Position Dispense System	8814536	7/20/2012
Entegris, Inc.	Solid Precursor-Based Delivery Of Fluid Utilizing Controlled Solids Morphology	8821640	8/31/2007
Entegris, Inc.; University of Florida Research Foundation, Inc.	Chemical Mechanical Polishing Of Group III-Nitride Surfaces	8828874	3/28/2011
Entegris, Inc.	A Pressurized System For Dispensing Fluids	8844774	8/28/2008
Entegris, Inc.	Gas Storage And Dispensing System With Monolithic Carbon Adsorbent	8858685	8/31/2012
Entegris, Inc.	Electrostatic Chuck With Photo-Patternable Soft Protrusion Contact Surface	8861170	11/2/2012
Entegris, Inc.	Network Interface Device	8862784	3/28/2011
Entegris, Inc.	System And Method For Pressure Compensation In A Pump	8870548	10/3/2011
Entegris, Inc.	Low Temperature Deposition Of Phase Change Memory Materials	8877549	3/24/2014
Entegris, Inc.	Electrostatic Chuck With Polymer Protrusions	8879233	5/13/2010
Entegris, Inc.	Methods And Apparatus For Large Diameter Wafer Handling	8919563	3/19/2013
Entegris, Inc.	Method And Materials For Making A Monolithic Porous Pad Cast Onto A Rotatable Base	8920571	9/17/2013
Entegris, Inc.	Sintered Porous Material Comprising Particles Of Different Average Sizes	8932381	6/16/2010
Entegris, Inc.	Metal And Dielectric Compatible Sacrificial Anti-Reflective Coating Cleaning And Removal Composition	8951948	6/7/2006

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Method And Apparatus To Help Promote Contact Of Gas With Vaporized Material	9004462	4/13/2013
Entegris, Inc.	Method And Apparatus For Enhanced Lifetime And Performance Of Ion Source In An Ion Implantation System	9012874	2/26/2011
Entegris, Inc.	Purifier For Removing Hydrogen Fluoride From Electrolytic Solution	9023204	12/16/2010
Entegris, Inc.	Optical Sensor Apparatus To Detect Light Based On The Refractive Index Of A Sample	9024252	2/21/2012
Entegris, Inc.; Varian Semiconductor Equipment Associates	High Surface Resistivity Electrostatic Chuck	9025305	5/24/2011
Entegris, Inc.	I/O Systems, Methods And Devices For Interfacing A Pump Controller	9025454	4/6/2011
Entegris, Inc.	Systems And Methods For Managing Material Storage Vessels Having Information Storage Elements	9031683	7/10/2007
Entegris, Inc.	Antimony Compounds Useful For Deposition Of Antimony-Containing Materials	9034688	4/30/2009
Entegris, Inc.	Fluid Processing Systems And Methods	9038855	6/8/2010
Entegris, Inc.	Cleaning Agent For Semiconductor Provided With Metal Wiring	9045717	1/28/2011
Entegris, Inc.	Porous Barrier For Evenly Distributed Purge Gas In A Microenvironment	9054144	12/10/2010
Entegris, Inc.	Filtration Module	9056281	7/11/2006
Entegris, Inc.	Liner-Based Assembly For Removing Impurities	9062828	10/27/2011
Entegris, Inc.	Aqueous Cleaner For The Removal Of Post-Etch Residues	9063431	7/15/2011
Entegris, Inc.	Folded Liner For Use With An Overpack And Methods Of Manufacturing The Same	9067718	2/1/2013
Entegris, Inc.	Low Temperature GST Process	9070875	5/21/2010
Entegris, Inc.; Tokyo Electron Ltd.	Liner-Based Liquid Storage And Dispensing Systems With Empty Detection Capability	9073028	4/25/2006
Entegris, Inc.	Copper Cleaning And Protection Formulations	9074170	10/20/2009
Entegris, Inc.; Tokyo Electron Ltd.	Fluid Storage And Dispensing Systems And Processes	9079758	6/5/2006

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Fluid Storage And Dispensing System Including Dynamic Fluid Monitoring Of Fluid Storage And Dispensing Vessel	9097611	6/7/2011
Entegris, Inc.	Composition And Method For Low Temperature Chemical Vapor Deposition Of Silicon-Containing Films Including Silicon Carbonitride And Silicon Oxycarbonitride Films	9102693	7/17/2014
Entegris, Inc.	Endpoint Determination For Capillary-Assisted Flow Control	9109755	6/18/2011
Entegris, Inc.	Ion Implantation System And Method	9111860	10/25/2010
Entegris, Inc.	Liquid Dispensing Systems Encompassing Gas Removal	9120616	6/11/2007
Entegris, Inc.	Connectors For Liner-Based Dispense Containers	9126749	10/14/2011
Entegris, Inc.	Chemical Mechanical Planarization Conditioner	9132526	3/6/2012
Entegris, Inc.	Fluid Monitoring Apparatus	9134146	6/23/2010
Entegris, Inc.	Universal Disk Shipper	9142260	11/18/2010
Entegris, Inc.	Isotopically-Enriched Boron-Containing Compounds, And Methods Of Making And Using Same	9142387	12/3/2013
Entegris, Inc.	Compositions And Methods For The Selective Removal Of Silicon Nitride	9158203	12/21/2007
Entegris, Inc.	Fluid Storage And Dispensing System Including Dynamic Fluid Monitoring Of Fluid Storage And Dispensing Vessel	9170246	10/24/2005
Entegris, Inc.	Enriched Silicon Precursor Compositions And Apparatus And Processes For Utilizing Same	9171725	2/26/2011
Entegris, Inc.	Apparatus And Method For Preparation Of Compounds Or Intermediates Thereof From A Solid Material, And Using Such Compounds And Intermediates	9205392	8/28/2011
Entegris, Inc.	Nested Blow Molded Liner And Overpack And Methods Of Making Same	9211993	10/10/2011
Entegris, Inc.	Method For Recycling Of Obsolete Printed Circuit Boards	9215813	4/15/2011
Entegris, Inc.; University of Florida Research Foundation, Inc.	Defect Capping For Reduced Defect Density Epitaxial Articles	9218954	4/29/2013

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Antimony And Germanium Complexes Useful For CVD/ALD Of Metal Thin Films	9219232	3/12/2007
Entegris, Inc.	PYDF Pyrolyzate Adsorbent And Gas Storage And Dispensing System Utilizing Same	9234628	3/25/2014
Entegris, Inc.; University of Florida Research Foundation, Inc.	Smooth Diamond Surfaces And CMP Method For Forming	9259818	11/6/2012
Entegris, Inc.; University of Florida Research Foundation, Inc.	CMP Method For Forming Smooth Diamond Surfaces	9259819	9/23/2014
Entegris, Inc.	I/O Systems, Methods And Devices For Interfacing A Pump Controller	9262361	3/20/2015
Entegris, Inc.	Cluster Ion Implantation Of Arsenic And Phosphorus	9269582	3/22/2012
Entegris, Inc.	Method And System For Pump Priming	9297374	10/20/2011
Entegris, Inc.	System And Method For Position Control Of A Mechanical Piston In A Pump	9309872	1/10/2014
Entegris, Inc.	Wafer Carrier	9312157	8/13/2012
Entegris, Inc.	Method And Apparatus For Treating Fluids To Reduce Microbubbles	9333443	6/3/2014
Entegris, Inc.	Precursors For Silicon Dioxide Gap Fill	9337054	6/27/2008
Entegris, Inc.	TPIR Apparatus For Monitoring Tungsten Hexafluoride Processing To Detect Gas Phase Nucleation, And Method And System Utilizing Same	9340878	5/28/2010
Entegris, Inc.	Replaceable Wafer Support Backstop	9343345	5/6/2013
Entegris, Inc.	Refillable Ampoule With Purge Capability	9347616	5/24/2012
Entegris, Inc.	Method And System For Controlling Operation Of A Pump Based On Filter Information In A Filter Information Tag	9354637	2/7/2014
Entegris, Inc.; Solvay Solexis;	Non-Dewetting Porous Membranes	9359480	3/31/2010
Entegris, Inc.; University of Florida Research Foundation, Inc.	Chemical Mechanical Polishing Of Silicon Carbide Comprising Surfaces	9368367	4/13/2009
Entegris, Inc.	Ventilation Gas Management Systems And Processes	9383064	1/11/2011

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Phase Change Memory Structure Comprising Phase Change Alloy Center-Filled With Dielectric Material	9385310	4/27/2013
Entegris, Inc.	System And Method For A Pump With Onboard Electronics	9399989	9/5/2013
Entegris, Inc.; International Business Machines Corp.	Composition For And Method Of Suppressing Titanium Nitride Corrosion	9416338	10/13/2011
Entegris, Inc.	Metal And Dielectric Compatible Sacrificial Anti-Reflective Coating Cleaning And Removal Composition	9422513	12/2/2014
Entegris, Inc.	Oxidizing Aqueous Cleaner For The Removal Of Post-Etch Residues	9443713	7/1/2014
Entegris, Inc.	Silylene Compositions And Methods Of Use Thereof	9443736	5/22/2013
Entegris, Inc.	Boron Ion Implantation Using Alternative Fluorinated Boron Precursors, And Formation Of Large Boron Hydrides For Implantation	9455147	12/26/2012
Entegris, Inc.	Porous Composite Membrane	9457322	4/12/2010
Entegris, Inc.	Purification System With Manifold Assembly And Removable Filter Cassette	9468872	9/30/2013
Entegris, Inc.	PYDF Pyrolyzate Adsorbent And Gas Storage And Dispensing System Utilizing Same	9468901	12/7/2015
Entegris, Inc.	Method And Apparatus To Help Promote Contact Of Gas With Vaporized Material	9469898	7/31/2015
Entegris, Inc.	Thin Wafer Shipper	9472431	3/11/2011
Entegris, Inc.	Cleaning Agent For Semiconductor Provided With Metal Wiring	9476019	5/29/2015
Entegris, Inc.	Wafer Shipper	9478450	4/9/2013
Entegris, Inc.	Single Use Dispense Head With Key Code	9505603	11/27/2013
Entegris, Inc.	Gas Storage And Dispensing System With Monolithic Carbon Adsorbent	9518701	10/14/2014
Entegris, Inc.	Wafer Container With Door Interface Seal	9520310	5/6/2013
Entegris, Inc.	Sulfolane Mixtures As Ambient Aprotic Polar Solvents	9520617	3/14/2014
Entegris, Inc.	Substantially Rigid Collapsible Liner And Flexible Gusseted Or Non-Gusseted Liners And Methods Of Manufacturing The Same And Methods For Limiting Choke-Off In Liners	9522773	7/9/2010

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Antioxidants For Post-CMP Cleaning Formulations	9528078	3/25/2014
Entegris, Inc.	Precursor Compositions For Atomic Layer Deposition And Chemical Vapor Deposition Of Titanate, Lanthanate, And Tantalate Dielectric Films	9534285	6/11/2014
Entegris, Inc.	Cobalt Precursors For Low Temperature ALD And CVD Of Cobalt-Based Thin Films	9540408	9/24/2013
Entegris, Inc.	Dissolved Oxygen Sensor	9541539	10/31/2014
Entegris, Inc.	Electrostatic Chuck	9543187	5/15/2009
Entegris, Inc.	Compositions And Methods For Selectively Etching Titanium Nitride	9546321	12/27/2012
Entegris, Inc.; University of Florida Research Foundation, Inc.	Chemical Mechanical Polishing Of Alumina	9551075	8/4/2014
Entegris, Inc.	A Pressurized System For Dispensing Fluids	9556012	9/5/2014
Entegris, Inc.; University of Florida Research Foundation, Inc.	Polishing Of Hard Substrates With Soft-Core Composite Particles	9567492	8/28/2014
Entegris, Inc.	Folded Liner For Use With An Overpack And Methods Of Manufacturing The Same	9573747	5/14/2015
Entegris, Inc.	Fluid Processing Systems And Methods	9586188	5/4/2015
Entegris, Inc.	Methods And Apparatus For Large Diameter Wafer Handling	9592930	12/2/2014
Entegris, Inc.	Chemical Mechanical Planarization Pad Conditioner	9616547	8/20/2015
Entegris, Inc.	System And Method For Variable Dispense Position	9617988	11/21/2005
Entegris, Inc.	System And Method For Operation Of A Pump	9631611	11/30/2007
Entegris, Inc.	Liner-Based Assembly For Removing Impurities	9631774	10/27/2011
Entegris, Inc.	Endpoint Determination For Capillary-Assisted Flow Control	9631778	6/18/2011
Entegris, Inc.	Optical Sensor Apparatus To Detect Light Based On The Refractive Index Of A Sample	9632024	11/3/2014
Entegris, Inc.	Wafer Container With Door Mounted Shipping Cushions	9633877	5/6/2013
Entegris, Inc.	Liner-Based Dispenser	9637300	11/22/2011

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Fluorine Free Tungsten ALD/CVD Process	9637395	9/26/2013
Entegris, Inc.	Double Self-Aligned Phase Change Memory Device Structure	9640757	10/28/2013
Entegris, Inc.; Varian Semiconductor Equipment Associates	Diffusion Resistant Electrostatic Clamp	9644269	5/16/2014
Entegris, Inc.	Nested Blow Molded Liner And Overpack And Methods Of Making Same	9650169	10/10/2011
Entegris, Inc.	Apparatus And Process For Integrated Gas Blending	9666435	6/22/2006
Entegris, Inc.	CMP Brush Packaging	9669982	9/28/2013
Entegris, Inc.	Wafer Container With Door Guide And Seal	9673075	10/19/2011
Entegris, Inc.	Composition And Process For Stripping Photoresist From A Surface Including Titanium Nitride	9678430	5/17/2013
Entegris, Inc.	Isotopically-Enriched Boron-Containing Compounds, And Methods Of Making And Using Same	9685304	9/22/2015
Entegris, Inc.	Compositions And Methods For The Selective Removal Of Silicon Nitride	9691629	10/12/2015
Entegris, Inc.; Varian Semiconductor Equipment Associates	High Conductivity Electrostatic Chuck	9692325	9/8/2011
Entegris, Inc.	Gas Purifier	9694319	2/8/2013
Entegris, Inc.	Fluid Delivery System And Method	9695985	2/22/2013
Entegris, Inc.	Electrostatic Chuck With Photo-Patternable Soft Protrusion Contact Surface	9721821	10/29/2013
Entegris, Inc.	Reticle Pod	9745119	9/27/2006
Entegris, Inc.	Method And Apparatus For Enhanced Lifetime And Performance Of Ion Source In An Ion Implantation System	9754786	2/26/2011
Entegris, Inc.	AION Coated Substrate With Optional Ytria Overlayer	9761417	8/9/2012
Entegris, Inc.	Gas Purification Filter Unit	9764268	12/9/2013
Entegris, Inc.	Apparatus And Method For Preparation Of Compounds Or Intermediates Thereof From A Solid Material, And Using Such Compounds And Intermediates	9764298	11/13/2015

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Compositions For Cleaning III-V Semiconductor Materials And Methods Of Using Same	9765288	12/4/2013
Entegris, Inc.	Composition And Method For Low Temperature Chemical Vapor Deposition Of Silicon-Containing Films Including Silicon Carbonitride And Silicon Oxycarbonitride Films	9783558	7/14/2015
Entegris, Inc.	Purifier Cassette	9802142	10/1/2013
Entegris, Inc.	Apparatus And Method For Pressure Dispensing Of High Viscosity Liquid-Containing Materials	9802807	9/17/2014
Entegris, Inc.; Tokyo Electron Ltd.	Fluid Storage And Dispensing Systems And Processes	9802808	6/5/2006
Entegris, Inc.	Alternate Materials And Mixtures To Minimize Phosphorus Buildup In Implant Applications	9812291	2/14/2013
Entegris, Inc.	System And Method For Pressure Compensation In A Pump	9816502	7/11/2014
Entegris, Inc.	Molded Rotatable Base For A Porous Pad	9820561	11/21/2006
Entegris, Inc.	Ion Implantation Compositions, Systems, And Methods	9831063	3/3/2014
Entegris, Inc.	Composition And Process For Selectively Etching Metal Nitrides	9831088	10/6/2011
Entegris, Inc.; University of Florida Research Foundation, Inc.	Method Of Chemical Mechanical Polishing Of Alumina	9878420	11/2/2016
Entegris, Inc.	Anti-Spike Pressure Management Of Pressure-Regulated Fluid Storage And Delivery Vessels	9897257	9/20/2013
Entegris, Inc.	Reticle Pod With Cover To Baseplate Alignment System	9919863	10/17/2013
Entegris, Inc.	Dopant Precursors For Mono-Layer Doping	9929014	11/22/2014
Entegris, Inc.	Front Opening Wafer Container With Robotic Flange	9929032	10/19/2011
Entegris, Inc.	B2F4 Manufacturing Process	9938156	10/9/2012
Entegris, Inc.	Modular Filter Cassette	9943789	10/3/2012
Entegris, Inc.	Carbon Dopant Gas And Co-Flow For Implant Beam And Source Life Performance Improvement	9960042	2/13/2013

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Ion Source Cleaning In Semiconductor Processing Systems	9991095	8/12/2009
Entegris, Inc.	Molded Fluoropolymer Breakseal With Compliant Material	9994371	7/21/2015
Entegris, Inc.	Preparation Of High Pressure BF3/H2 Mixtures	9996090	5/15/2014
Entegris, Inc.	Cobalt CVD	9997362	3/26/2015
Entegris, Inc.	Substrate Container With Purge Ports	9997388	11/20/2013
Entegris, Inc.	Vapor Phase Etching Of Hafnia And Zirconia	10002772	6/5/2017
Entegris, Inc.	Liquid-Free Sample Traps And Analytical Method For Measuring Trace Level Acidic And Basic AMC	10031114	9/5/2014
Entegris, Inc.	Porous Barrier For Evenly Distributed Purge Gas In A Microenvironment	10032660	12/10/2010
Entegris, Inc.	Methods And Materials For Making A Monolithic Porous Pad Cast Onto A Rotatable Base	10040226	7/13/2004
Entegris, Inc.	Precursors For Silicon Dioxide Gap Fill	10043658	1/4/2018
Entegris, Inc.	Wafer Container With Tubular Environmental Control Components	10043696	3/13/2009
Entegris, Inc.	Methods, Systems, And Apparatuses For Controlling Substance Mixing Concentration	10081000	11/15/2013
Entegris, Inc.	System And Method For Detection And Signaling Of Component End-Of-Life In A Dissolved Oxygen Sensor	10107755	3/19/2015
Entegris, Inc.	Phosphorus Or Arsenic Ion Implantation Utilizing Enhanced Source Techniques	10109488	8/19/2015
Entegris, Inc.	Systems And Methods For Managing Material Storage Vessels Having Information Storage Elements	10127094	7/10/2007
Entegris, Inc.	Wafer Carrier	10147624	8/13/2012
Entegris, Inc.	Organic Solvent Purifier And Method Of Using	10150087	3/15/2013
Entegris, Inc.	Dip Tube Assemblies	10155649	10/17/2014
Entegris, Inc.	High Purity Gas Purifier	10159927	4/17/2015
Entegris, Inc.	Wafer Container With Latching Mechanism For Large Diameter Wafers	10173812	4/28/2014
Entegris, Inc.	Sensor With Protective Layer	10175133	6/4/2014
Entegris, Inc.	Post-CMP Removal Using Compositions And Method Of Use	10176979	2/15/2013
Entegris, Inc.; Solvay Solexis;	Non-Dewetting Porous Membranes	10179842	3/31/2010

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	ALD Processes For Low Leakage Current And Low Equivalent Oxide Thickness BiTaO Films	10186570	2/5/2014
Entegris, Inc.	Wafer Container With Shock Condition Protection	10217655	12/18/2015
Entegris, Inc.	Ion Implanter Comprising Integrated Ventilation System	10229840	10/29/2015
Entegris, Inc.	Gas Purifier	10245554	2/8/2013
Entegris, Inc.	Fitment And Fitment Adapter For Dispensing Systems And Methods For Manufacturing Same	10245609	11/24/2014
Entegris, Inc.	Smart Package	10247363	12/12/2016
Entegris, Inc.	Removable Closure With A Key Code Body For A Fluid Container	10266317	11/29/2017
Entegris, Inc.	Thin Wafer Shipper	10276414	3/11/2011
Entegris, Inc.	Fluid Monitoring Apparatus	10288456	6/23/2010
Entegris, Inc.	Passivation Of Germanium Surfaces	10290505	8/12/2016
Entegris, Inc.	Chemical Mechanical Planarization Pad Conditioner With Elongated Cutting Edges	10293463	3/20/2015
Entegris, Inc.	Front Opening Wafer Container With Weight Ballast	10304710	6/18/2014
Entegris, Inc.	Cobalt Precursors For Low Temperature ALD And CVD Of Cobalt-Based Thin Films	10329663	9/24/2013
Entegris, Inc.	Microporous Carbon Monoliths From Natural Carbohydrates	10335763	8/22/2015
Entegris, Inc.	Ni:NiGe:Ge Selective Etch Formulations And Method Of Using Same	10340150	12/16/2014
Entegris, Inc.	Oblong Diaphragm Valves	10344876	6/22/2016
Entegris, Inc.	Use Of Non-Oxidizing String Acids For The Removal Of Ion-Implanted Resist	10347504	12/19/2015
Entegris, Inc.	Towers For Substrate Carriers	10347517	10/14/2014
Entegris, Inc.	Filtration Article With Fluoropolymer Knit	10350529	7/22/2013
Entegris, Inc.	Post Chemical Mechanical Polishing Formulations And Method Of Use	10351809	1/5/2016
Entegris, Inc.	Anti-Rotation Device For Hydraulic Connectors	10352491	10/22/2014
Entegris, Inc.	Carbon Dopant Gas And Co-Flow For Implant Beam And Source Life Performance Improvement	10354877	2/13/2013
Entegris, Inc.	Ultra-High Purity Storage And Dispensing Of Liquid Reagents	10358263	8/7/2013
Entegris, Inc.	Index Of Refraction Sensor System With Dual Mode Temperature Control	10371624	10/24/2016

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Source Reagent-Based Delivery Of Fluid With High Material Flux For Batch Deposition	10385452	5/31/2013
Entegris, Inc.; Varian Semiconductor Equipment Associates	Diffusion Resistant Electrostatic Clamp	10385454	3/3/2017
Entegris, Inc.	Wafer Shipper With Purge Capability	10388554	4/6/2017
Entegris, Inc.	Compositions And Methods For Selectively Etching Titanium Nitride	10392560	12/27/2012
Entegris, Inc.	Solid Vaporizer	10392700	3/28/2015
Entegris, Inc.	Electrostatic Chuck	10395963	10/17/2016
Entegris, Inc.	Compositions And Methods For Selectively Etching Titanium Nitride	10428271	8/28/2014
Entegris, Inc.	Connection Verification Tool	10443999	6/19/2017
Entegris, Inc.	Formulations For The Removal Of Particles Generated By Cerium-Containing Solutions	10446389	1/12/2012
Entegris, Inc.	Multi-Pass Gas Cell With Mirrors In Openings Of Cylindrical Wall For IR And UV Monitoring	10451540	1/16/2016
Entegris, Inc.	Low Temperature Molybdenum Film Deposition Utilizing Boron Nucleation Layers	10453744	4/20/2018
Entegris, Inc.	Anti-Reflective Coating Cleaning And Post-Etch Residue Removal Composition Having Metal, Dielectric And Nitride Compatibility	10460954	6/2/2015
Entegris, Inc.; Advanced Technology Materials, Inc.	Method And Apparatus To Help Promote Contact Of Gas With Vaporized Material	10465286	10/17/2016
Entegris, Inc.	CMP Pad Conditioning Assembly	10471567	9/15/2016
Entegris, Inc.	Compositions And Methods For Selectively Etching Titanium Nitride	10472567	3/4/2014
Entegris, Inc.	In-Situ Oxidized NiO As Electrode Surface For High K MIM Device	10475575	9/30/2013
Entegris, Inc.	Formulations To Selectively Etch Silicon And Germanium	10475658	12/29/2014
Entegris, Inc.	Wafer Support Column With Interlocking Features	10475682	8/24/2016
Entegris, Inc.	Apparatus And Methods For Filling And Dispensing Liquids	10486956	7/11/2014

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Packaging For Dip Tubes	10494169	5/22/2015
Entegris, Inc.	Apparatus And Method For Pressure Dispensing Of High Viscosity Liquid-Containing Materials	10494250	9/17/2014
Entegris, Inc.	Fluid Delivery System And Method	10495259	2/22/2013
Entegris, Inc.	Ion Implantation Processes And Apparatus	10497532	10/27/2015
Entegris, Inc.	Carbon Materials For Carbon Implantation	10497569	11/17/2016
Entegris, Inc.	Electrostatic Chuck And Method Of Making Same	10497598	2/6/2015
Entegris, Inc.	Smart Package	10508773	2/12/2016
Entegris, Inc.	High-Purity Tungsten Hexacarbonyl For Solid Source Delivery	10526697	2/28/2016
Entegris, Inc.	Microporous Polyamide-Imide Membranes	10532329	11/14/2014
Entegris, Inc.	Disposable Liquid Chemical Sensor System	10545087	3/17/2015
Entegris, Inc.	Refillable Ampoule With Purge Capability	10551004	5/24/2012
Entegris, Inc.	Post Chemical Mechanical Polishing Formulations And Method Of Use	10557107	1/29/2015
Entegris, Inc.	Substrate Container With Enhanced Containment	10566225	7/13/2016
Entegris, Inc.	High Torque Polymer Fittings	10569390	8/26/2015
Entegris, Inc.	Etching Solution For Copper Or Copper Alloy	10570522	8/16/2011
Entegris, Inc.	Cleaning Compositions For Removing Post Etch Residue	10577567	11/22/2017
Entegris, Inc.	Anti-Rotation Device For Hydraulic Connectors	10584813	11/23/2015
Entegris, Inc.	Substrate Container With Window Retention Spring	10593577	4/6/2017
Entegris, Inc.	Methods And Assemblies Using Flourine Containing And Inert Gases For Plasma Flood Gun Operation	10622192	11/15/2018
Entegris, Inc.	Aminiodosilanes And Methods Of Synthesizing These Aminiodosilanes	10640523	1/8/2019
Entegris, Inc.	Diaphragm Valve With Total Valve Cavity Evacuation	10648587	3/31/2017
Entegris, Inc.	Compositions And Methods For Etching Silicon Nitride-Containing Substrates	10651045	9/6/2018
Entegris, Inc.	Depth Filtration Media With Multiple Organic And/Or Inorganic Materials	10668411	7/18/2017
Entegris, Inc.	Internal Purge Diffuser With Offset Manifold	10672637	9/2/2016

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Liquid Dispensing Systems With Gas Removal And Sensing Capabilities	10676341	2/15/2018
Entegris, Inc.	Carbon Electrode And Lithium Ion Hybrid Capacitor Comprising Same	10707488	6/12/2017
Entegris, Inc.	Wafer Container With Latching Mechanism For Large Diameter Wafers	10723525	12/4/2018
Entegris, Inc.	Post Chemical Mechanical Polishing Formulations And Method Of Use	10731109	4/11/2018
Entegris, Inc.	Wafer Container With External Passive Getter Module	10734264	5/12/2016
Entegris, Inc.	Vacuum Chuck With Polymeric Embossments	10734270	2/11/2014
Entegris, Inc.	Wafer Contact Surface Protrusion Profile With Improved Particle Performance	10770330	2/2/2017
Entegris, Inc.	Substrate Container With Improved Substrate Retainer And Door Latch Assist Mechanism	10784135	9/12/2016
Entegris, Inc.	High Purity Gas Purifier	10786776	4/17/2015
Entegris, Inc.	Nodule Ratios For Targeted Enhanced Cleaning Performance	10790167	2/20/2015
Entegris, Inc.	Post-Etch Residue Removal For Advanced Node Beol Processing	10790187	1/17/2018
Entegris, Inc.	Grafted Ultra High Molecular Weight Polyethylene Microporous Membranes	10792620	11/19/2015
Entegris, Inc.	Alloys Of Co To Reduce Stress	10793947	8/10/2017
Entegris, Inc.	Gas Supply Vessel	10837603	2/20/2019
Entegris, Inc.	Alon Coated Substrate With Optional Yttria Overlayer	10840067	8/9/2012
Entegris, Inc.	Smart Package	10845006	9/20/2019
Entegris, Inc.	Bottom Opening Pod With Magnetically Coupled Cassettes	10850279	3/27/2016
Entegris, Inc.; University of Florida Research Foundation, Inc.	Film For Applying Compressive Stress To Ceramic Materials	10868899	6/22/2018
Entegris, Inc.	Cyclopentadienyl Titanium Alkoxides With Ozone Activated Ligands For ALD Of TiO2	10870921	12/20/2014
Entegris, Inc.	Haloalkynyl Dicobalt Hexacarbonyl Precursors For Chemical Vapor Deposition Of Cobalt	10872770	11/21/2017
Entegris, Inc.	Substrate Cushion Brace Retainer	10872795	2/3/2017
Entegris, Inc.	Coatings For Glass-Shaping Molds And Molds Comprising The Same	10882774	9/21/2018

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Ion Implantation Processes And Apparatus Using Gallium	10892137	9/9/2019
Entegris, Inc.	Silicon Carbide Filter Membrane And Methods Of Use	10894233	7/5/2018
Entegris, Inc.	Solid Precursor-Based Delivery Of Fluid Utilizing Controlled Solids Morphology	10895010	8/31/2007
Entegris, Inc.	Heat Transfer To Ampoule Trays	10895347	10/17/2018
Entegris, Inc.	Wafer Shipper With Stacked Support Rings	10896834	2/24/2015
Entegris, Inc.	Microporous Polyamide-Imide Membranes	10919001	11/11/2019
Entegris, Inc.	Hydrogenated Isotopically Enriched Boron Trifluoride Dopant Source Gas Composition	10920087	3/27/2017
Entegris, Inc.	Compositions And Methods For Selectively Etching Titanium Nitride	10920141	6/6/2014
Entegris, Inc.	Formulations To Selectively Etch Silicon Germanium Relative To Germanium	10957547	7/7/2016
Entegris, Inc.	Articles Coated With Fluoro-Annealed Films	10961617	9/30/2015
Entegris, Inc.	Blended Potting Resins And Use Thereof	10981117	6/30/2016
Entegris, Inc.	Airborne Molecular Contamination Filter Cartridge System With Combustible Filter Cartridge And Reusable Frame	10987612	4/28/2017
Entegris, Inc.	Triodosilylamine Precursor Compounds	10988490	10/3/2019
Entegris, Inc.	Tungsten Post-CMP Cleaning Composition	10988718	3/9/2017
Entegris, Inc.	Composition And Process For Selectively Etching P-Doped Polysilicon Relative To Silicon Nitride	10991809	11/22/2016
Entegris, Inc.	System And Method For Removing Airborne Molecular Contaminants From Gas Streams	11020704	3/19/2015
Entegris, Inc.	Cold Sintering Of Solid Precursors	11035038	10/6/2016
Entegris, Inc.	Boron-Doped Amorphous Carbon Hard Mask And Related Methods	11049728	10/18/2019
Entegris, Inc.	Bulk Process Gas Purification Systems	11052347	12/21/2018
Entegris, Inc.	Silicon Nitride Etching Composition And Method	11053440	11/12/2019
Entegris, Inc.	Silicon Implantation In Substrates And Provision Of Silicon Precursor Compositions Therefor	11062906	8/14/2014
Entegris, Inc.; University of Florida Research Foundation, Inc.	Hard Abrasive Particle-Free Polishing Of Hard Materials	11078380	7/10/2017

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Post CMP Cleaning Compositions For Ceria Particles	11085011	7/31/2019
Entegris, Inc.	Hydrophobic Polyethylene Membrane For Use In Venting, Degassing, And Membrane Distillation Processes	11103833	9/18/2018
Entegris, Inc.	Modular Tray Ampoule	11104993	7/25/2018
Entegris, Inc.	CVD Mo Deposition By Using MoOCI4	11107675	4/26/2018
Entegris, Inc.	Silicon Carbide/Graphite Composite And Articles And Assemblies Comprising Same	11117806	8/18/2016
Entegris, Inc.	Fluidized Granular Absorbent Bed Filter	11123681	5/15/2018
Entegris, Inc.	Post Chemical Mechanical Polishing Cleaning Compositions	11124740	11/20/2019
Entegris, Inc.	Ceria Removal Compositions	11124741	2/5/2020
Entegris, Inc.	Post CMP Cleaning Composition	11124746	10/21/2019
Entegris, Inc.	Non-Amine Post-CMP Compositions And Method Of Use	11127587	2/3/2015
Entegris, Inc.	Tamper-Resistant Chemical Reagent Package	11136169	4/10/2017
Entegris, Inc.	Ion Implantation System With Mixture Of Arc Chamber Materials	11139145	6/17/2020
Entegris, Inc.; Rotarex North America	Valve System With Position Indicator	11143329	9/9/2019
Entegris, Inc.	Cleaning Composition With Corrosion Inhibitor	11149235	7/18/2019
Entegris, Inc.	Selectively Etching Materials	11152219	6/17/2019
Entegris, Inc.	Gas Filter	11154811	4/3/2017
Entegris, Inc.	Compositions And Methods For Removing Ceria Particles From A Surface	11164738	1/18/2018
Entegris, Inc.	Preparation Of Triiodosilanes	11203604	12/6/2019
Entegris, Inc.	Latching Mechanism For A Substrate Container	11211274	5/26/2017
Entegris, Inc.; University of Florida Research Foundation, Inc.	CMP Polishing Pad Conditioner	11213927	12/27/2018
Entegris, Inc.	Active Wet Scrubbing Filtration System	11260336	11/25/2019
Entegris, Inc.	Grafted Polysulfone Membranes	11273436	11/19/2015
Entegris, Inc.	Sintered Porous Material Having Nodes And Fibers Of Different Materials, With Different Sintering Points, And Related Methods Of Preparation And Use	11273492	11/2/2018
Entegris, Inc.	Valve And Valve Member For Controlling Fluid Flow	11280429	12/9/2019

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Coated Porous Polymeric Membranes	11285443	5/26/2017
Entegris, Inc.	Germanium Tetrafluoride And Hydrogen Mixtures For An Ion Implantation System	11299802	3/15/2019
Entegris, Inc.	Grounding Mechanism For Multi-Layer For Electrostatic Chuck, And Related Methods	11309207	7/24/2020
Entegris, Inc.	Aminiodosilanes And Methods Of Synthesizing These Aminiodosilanes	11312739	4/2/2020
Entegris, Inc.	Welded Check Valve	11313482	11/14/2019
Entegris, Inc.	Fluorine Ion Implantation Method And System	11315791	12/13/2019
Entegris, Inc.	Adsorbent-Based, Mechanically-Regulated Gas Storage And Delivery Vessel	11333302	4/4/2019
Entegris, Inc.	Nozzle Filter	11338246	3/30/2017
Entegris, Inc.	Fluid Circuit With Integrated Electrostatic Discharge Mitigation	11339063	2/27/2019
Entegris, Inc.	Automatable Closure	11345519	9/13/2018
Entegris, Inc.	Ruthenium Etching Composition And Method	11346008	11/22/2019
Entegris, Inc.	Group VI Precursor Compounds	11352383	2/27/2020
Entegris, Inc.	Process For Preparing Organotin Compounds	11358975	7/2/2021
Entegris, Inc.	Wet Etching Composition And Method	11365351	10/8/2020
Entegris, Inc.	Chemical Vapor Deposition Processes Using Ruthenium Precursor And Reducing Gas	11371138	11/4/2019
Entegris, Inc.	Selective Deposition Of Silicon Nitride	11380539	2/12/2020
Entegris, Inc.	Wafer Carrier Door	D611437	3/18/2008
Entegris, Inc.	Cleaning Sponge Roller	D622920	5/2/2007
Entegris, Inc.	Substrate Shipper Component	D664851	10/29/2010
Entegris, Inc.	Substrate Container	D668865	10/19/2010
Entegris, Inc.	Substrate Shipper Component	D673853	8/6/2012
Entegris, Inc.	Substrate Cleaning Brush	D682497	12/21/2010
Entegris, Inc.	Substrate Container	D689696	10/15/2012
Entegris, Inc.	Packaging	D702128	4/12/2012
Entegris, Inc.	Wafer Carrier Ring	D723239	8/30/2012
Entegris, Inc.	Substrate Container	D740031	9/17/2013
Entegris, Inc.	Breakseal For A Liquid Dispensing System	D766720	7/30/2015
Entegris, Inc.	Wafer Carrier Ring	D767233	2/24/2015
Entegris, Inc.	Wafer Support Ring	D767234	3/2/2015
Entegris, Inc.	Liquid-Free Trap For Trace Level Acidic And Basic AMC And Components Thereof	D775342	12/10/2014
Entegris, Inc.	Wafer Support Ring	D783922	12/8/2014

Registered Owner	Title	Registration Number	Date Filed
Entegris, Inc.	Wrench	D790936	4/1/2015
Entegris, Inc.	Container	D799825	8/31/2015
Entegris, Inc.	Container	D801046	11/3/2015
Entegris, Inc.	Wrench	D811183	6/30/2015
Entegris, Inc.	Wafer Support Ring	D815385	10/13/2016
Entegris, Inc.	Wafer Support Ring	D917825	7/16/2019
Entegris, Inc.	Filter Connector	D956923	9/30/2020

Patent Applications

Registered Owner	Title	Application Number	Date Filed
Entegris, Inc.	Porous Composite Membrane Including Microporous Membrane Layers And Nanofiber Layer	14/114868	5/9/2012
Entegris, Inc.	Surface Coating For Chamber Components Used In Plasma Systems	15/038724	11/21/2014
Entegris, Inc.	Cobalt Precursors	15/120844	2/19/2015
Entegris, Inc.	System And Method For Operation Of A Pump With Feed And Dispense Sensors, Filtration And Dispense Confirmation, And Reduced Pressure Priming Of Filter	15/314461	5/28/2015
Entegris, Inc.	Aqueous And Semi-Aqueous Cleaners For The Removal Of Post-Etch Residues With Tungsten And Cobalt Compatibility	15/324588	6/24/2015
Entegris, Inc.	Cobalt Deposition Selectivity On Copper And Dielectrics	15/510732	9/3/2015
Entegris, Inc.	Point Of Use Or Point Of Dispense Filter With Multiple Pleat Packs	15/517638	9/24/2015
Entegris, Inc.	Coatings For Enhancement Of Properties And Performance Of Substrate Articles And Apparatus	15/550630	2/13/2016
Entegris, Inc.	Flow Modification Fixture For An Equipment Front End Module	15/736716	6/14/2016
Entegris, Inc.; Tokyo Electron Ltd.; Sinfonia Technology Co., LTD	Aseptic Pods And Load Ports	15/736902	6/15/2016
Entegris, Inc.	High Pressure Filter	15/742670	7/1/2016
Entegris, Inc.	Coatings For Glass Shaping Molds And Molds Comprising The Same	15/743080	7/8/2016
Entegris, Inc.	Features On A Porous Membrane	15/777519	11/16/2016

Registered Owner	Title	Application Number	Date Filed
Entegris, Inc.	Articles Coated With A Fluoro-Annealed Film	15/871425	1/15/2018
Entegris, Inc.	B2F4 Manufacturing Process	15/899692	2/20/2018
Entegris, Inc.	Formulations To Selectively Etch Silicon-Germanium Relative To Silicon	15/951030	4/11/2018
Entegris, Inc.	Flexible Substrate Shipper	16/076817	2/9/2017
Entegris, Inc.	Fluid Circuit With Integrated Electrostatic Discharge Mitigation	16/099133	5/31/2017
Entegris, Inc.	Coatings For Enhancement Of Properties And Performance Of Substrate Articles And Apparatus	16/123149	2/13/2016
Entegris, Inc.	Compositions And Methods For Reducing Interaction Between Abrasive Particles And A Cleaning Brush	16/172139	10/26/2018
Entegris, Inc.	Multi Piece Fitment For A Fluid Container	16/179353	11/2/2018
Entegris, Inc.	Chemical Delivery System And Method Of Operating The Chemical Delivery System	16/210244	12/5/2018
Entegris, Inc.	Ampoule Vaporizer And Vessel	16/214516	12/10/2018
Entegris, Inc.	Chemical Resistant Multi-Layer Coatings Applied By Atomic Layer Deposition	16/223723	12/18/2018
Entegris, Inc.	Vapor Deposition Of Molybdenum Using A Bis(Alkyl-Arene) Molybdenum Precursor	16/245791	1/11/2019
Entegris, Inc.	Bag Assembly Sterilizable By Gamma Irradiation	16/257921	1/27/2017
Entegris, Inc.	Conductive Filter Device	16/300410	5/31/2017
Entegris, Inc.	Highly Retentive Polyamide Hollow Fiber Membranes Produced Via Controlled Shrinkage/Us	16/312653	6/27/2017
Entegris, Inc.	Spacer Film With Integrated Lamination Strip	16/318195	7/17/2017
Entegris, Inc.	Substrate Container With Latching Mechanism Having Two Cam Profiles	16/339589	12/13/2017
Entegris, Inc.	Fluorinated Filter Membrane, Filters, And Methods	16/354443	3/15/2019
Entegris, Inc.	Regulator Stability In A Pressure Regulated Storage Vessel	16/375176	4/4/2019
Entegris, Inc.	Polyamide Coated Filter Membrane, Filters, And Methods	16/381442	4/11/2019
Entegris, Inc.	Molds That Include A Ceramic Material Surface, And Related Methods For Making And Using The Molds	16/392132	4/23/2019
Entegris, Inc.	Conditioner For Chemical-Mechanical-Planarization Pad And Related Methods	16/402770	5/3/2019

Registered Owner	Title	Application Number	Date Filed
Entegris, Inc.	Method For Selectively Removing Nickel Platinum Material	16/444262	6/18/2019
Entegris, Inc.	Membrane Diffuser For A Substrate Container	16/552005	8/27/2019
Entegris, Inc.	Methods For Depositing Tungsten Or Molybdenum Films	16/577860	9/20/2019
Entegris, Inc.	Electrostatic Dissipative Fluoropolymer Composites And Articles Formed Therefrom	16/580210	9/24/2019
Entegris, Inc.	Porous Polyethylene Filter Membrane With Asymmetric Pore Structure, And Related Filters And Methods	16/595954	10/8/2019
Entegris, Inc.	Method For Forming Molybdenum Films On A Substrate	16/596077	10/8/2019
Entegris, Inc.	Reticle Support For A Container	16/596277	10/8/2019
Entegris, Inc.	Container For Holding And Transporting Reticles Having A Transparent Window Assembly	16/631121	7/16/2018
Entegris, Inc.	Carbon Materials For Carbon Implantation	16/659004	10/21/2019
Entegris, Inc.	Hydrophilic Filter Membrane With Pendant Hydrophilic Groups, And Related Methods Of Preparation And Use	16/674200	11/5/2019
Entegris, Inc.	Peald Processes Using Ruthenium Precursor	16/675845	11/6/2019
Entegris, Inc.	Electrostatic Chuck With Charge Dissipation Coating	16/682497	11/13/2019
Entegris, Inc.	Sublimation Ampoule With Level Sensing	16/682658	11/13/2019
Entegris, Inc.	Composite Nanoporous Metal Membrane	16/691226	11/21/2019
Entegris, Inc.	Compositions And Methods For Post-CMP Cleaning Of Cobalt Substrates	16/694426	11/25/2019
Entegris, Inc.	Liner For An Overpack Assembly	16/696748	11/26/2019
Entegris, Inc.	Fluorine Ion Implantation System With Non-Tungsten Materials And Methods Of Using	16/713189	12/13/2019
Entegris, Inc.	Methods For Depositing A Tungsten Or Molybdenum Layer In The Presence Of A Reducing Co-Reactant	16/713506	12/13/2019
Entegris, Inc.	Porous Polymeric Hollow Filter Membrane	16/737493	1/8/2020
Entegris, Inc.	Ligand-Modified Filter And Methods For Reducing Metals From Liquid Compositions	16/779181	1/31/2020
Entegris, Inc.	Polyimide-Containing Filtration Membrane, Filters, And Methods	16/803281	2/27/2020

Registered Owner	Title	Application Number	Date Filed
Entegris, Inc.	Composite Hollow Fiber And Related Methods And Products	16/817351	3/12/2020
Entegris, Inc.	Silicon Hydrazido Precursor Compounds	16/836444	3/31/2020
Entegris, Inc.	Segment Designs For Discs	16/843135	4/8/2020
Entegris, Inc.	Purge Connectors And Modules For A Substrate Container	16/851942	4/17/2020
Entegris, Inc.	Vaporization Vessel And Method	16/856687	4/23/2020
Entegris, Inc.	Filter With Electrostatic Discharge Mitigation Sleeve	16/857918	4/24/2020
Entegris, Inc.	Method For Forming Carbon Rich Silicon-Containing Films	16/868973	5/7/2020
Entegris, Inc.	Methods And Systems For Removing Ammonia From A Gas Mixture	16/879444	5/20/2020
Entegris, Inc.	Methods And Systems For Adsorbing Organometallic Vapor	16/879514	5/20/2020
Entegris, Inc.	Manifold With Movable Connectology	16/886231	5/28/2020
Entegris, Inc.	Substrate Container Valve Assemblies	16/886371	5/28/2020
Entegris, Inc.	Coatings For Enhancement Of Properties And Performance Of Substrate Articles And Apparatus	16/898149	6/10/2020
Entegris, Inc.	Vapor Deposition Precursor Compounds And Process Of Use	16/899060	6/11/2020
Entegris, Inc.	Methods Of Using Laser Energy To Remove Particles From A Surface	16/918789	7/1/2020
Entegris, Inc.	Porous Carbonaceous Vacuum Chamber Liners	16/923724	7/8/2020
Entegris, Inc.	Oxyhalide Precursors	16/923899	7/8/2020
Entegris, Inc.	Porous Sintered Membranes And Methods Of Preparing Porous Sintered Membranes	16/925212	7/9/2020
Entegris, Inc.	Wafer Cushion	16/929428	7/15/2020
Entegris, Inc.	Haloalkynyl Dicobalt Hexacarbonyl Precursors For Chemical Vapor Deposition Of Cobalt	16/952985	11/19/2020
Entegris, Inc.	Formulations For High Selective Silicon Nitride Etch	17/000045	8/21/2020
Entegris, Inc.	Group VI Metal Deposition Process	17/002646	8/25/2020
Entegris, Inc.	Electrostatic Discharge Mitigation Device	17/011919	9/3/2020
Entegris, Inc.	Plasma Immersion Methods For Ion Implantation	17/024261	9/17/2020
Entegris, Inc.	Membranes With Reduced Particle Formation	17/027082	9/21/2020
Entegris, Inc.	Porous Polymeric Membrane And Related Filters And Methods	17/066209	10/8/2020

Registered Owner	Title	Application Number	Date Filed
Entegris, Inc.	Reticle Pod With Window	17/066358	10/8/2020
Entegris, Inc.	System And Method For Removing Airborne Molecular Contaminants From Gas Streams	17/073651	10/19/2020
Entegris, Inc.	Optical Sensor Window Cleaner	17/075329	10/20/2020
Entegris, Inc.	Filter With Improved Fluid Flow	17/076204	10/21/2020
Entegris, Inc.	Reticle Pod Having Side Containment Of Reticle	17/089987	11/5/2020
Entegris, Inc.	Environmental Control Material Holder	17/091642	11/6/2020
Entegris, Inc.	Densified Solid Preforms For Sublimation	17/097855	11/13/2020
Entegris, Inc.	Diffusion Barriers Made From Multiple Barrier Materials, And Related Articles And Methods	17/115196	12/8/2020
Entegris, Inc.	Accurate Temperature Reading Of Fluid Near Interface	17/116738	12/9/2020
Entegris, Inc.	Spiraling Polyphase Electrodes For Electrostatic Chuck	17/122959	12/15/2020
Entegris, Inc.	Filter Life Indicator Media And Holder	17/124375	12/16/2020
Entegris, Inc.	Metal Body Having Magnesium Fluoride Region Formed Therefrom	17/125539	12/17/2020
Entegris, Inc.	Method For Etching Or Deposition	17/150942	1/15/2021
Entegris, Inc.	Porous Sintered Metal Bodies And Methods Of Preparing Porous Sintered Metal Bodies	17/151010	1/15/2021
Entegris, Inc.	Method For Nucleation Of Conductive Nitride Films	17/161332	1/28/2021
Entegris, Inc.; University of Florida Research Foundation, Inc.	CMP Composition For Polishing Hard Materials	17/163372	1/30/2021
Entegris, Inc.	Ligand-Modified Filter And Methods For Reducing Metals From Liquid Compositions	17/184273	2/24/2021
Entegris, Inc.	Manifold For A Substrate Container	17/192715	3/4/2021
Entegris, Inc.	Precursors And Methods For Preparing Silicon-Containing Films	17/214701	3/26/2021
Entegris, Inc.	Method And Composition For Etching Molybdenum	17/230633	4/14/2021
Entegris, Inc.	Yttrium Fluoride Films And Methods Of Preparing And Using Yttrium Fluoride Films	17/230742	4/14/2021
Entegris, Inc.	Hydrophobic Membranes And Membrane Distillation Methods	17/232416	4/16/2021
Entegris, Inc.	Electrostatic Discharge Mitigation Device	17/232489	4/16/2021

Registered Owner	Title	Application Number	Date Filed
Entegris, Inc.	Reticle Pod Having Coated Sensor Zones	17/232581	4/16/2021
Entegris, Inc.	Modular Filter Manifold	17/232780	4/16/2021
Entegris, Inc.	Multi Piece Fitment For A Fluid Container	17/237865	4/22/2021
Entegris, Inc.	Method Of Preparing Iodosilanes And Compositions Therefrom	17/239135	4/23/2021
Entegris, Inc.	Reticle Pod Sealing	17/244571	4/29/2021
Entegris, Inc.	Regulator Assembly And Test Method	17/244650	4/29/2021
Entegris, Inc.	Electrostatic Chuck Having A Gas Flow Feature, And Related Methods	17/317585	5/11/2021
Entegris, Inc.	Method Of Forming A Laminated Single Layer Composite Membrane	17/320973	5/14/2021
Entegris, Inc.	Bulk Process Gas Purification Systems And Related Methods	17/340987	6/7/2021
Entegris, Inc.	Silicon Nitride Etching Composition And Method	17/341138	6/7/2021
Entegris, Inc.	Ion-Exchange Membranes, Filters, And Methods	17/350970	6/17/2021
Entegris, Inc.	Composite Filter Media	17/354921	6/22/2021
Entegris, Inc.	Acid Resistant Filter Media	17/356201	6/23/2021
Entegris, Inc.	Silicon Precursor Compounds And Method For Forming Silicon-Containing Films	17/356252	6/23/2021
Entegris, Inc.	Hard Abrasive Particle-Free Polishing Of Hard Materials	17/365916	7/1/2021
Entegris, Inc.	Group VI Precursor Compounds	17/370722	7/8/2021
Entegris, Inc.	Coatings That Contain Fluorinated Yttrium Oxide And A Metal Oxide, And Methods Of Preparing And Using The Coatings	17/370810	7/8/2021
Entegris, Inc.	Connection Assembly And Filter Assembly	17/370855	7/8/2021
Entegris, Inc.	Carbon-Free Laminated Hafnium Oxide/Zirconium Oxide Films For Ferroelectric Memories	17/375755	7/14/2021
Entegris, Inc.	Kit For Installing Impeller Into Process Vessel	17/375855	7/14/2021
Entegris, Inc.	Compositions And Methods For Selectively Etching Silicon Nitride Films	17/388990	7/29/2021
Entegris, Inc.	Method For Removing Hard Masks	17/389879	7/30/2021
Entegris, Inc.	Silicon Carbide/Graphite Composite And Articles And Assemblies Comprising Same	17/396389	8/6/2021
Entegris, Inc.	Gas Supply Packages, Adsorbents, And Related Methods	17/398891	8/10/2021
Entegris, Inc.	Nitride Etchant Composition And Method	17/402126	8/13/2021
Entegris, Inc.	Main Seal Assembly	17/407934	8/20/2021

Registered Owner	Title	Application Number	Date Filed
Entegris, Inc.	Fluorinated Compositions For Ion Source Performance Improvements In Nitrogen Ion Implantation	17/411816	8/25/2021
Entegris, Inc.	Electrostatic Chuck With Embossments That Comprise Diamond-Like Carbon And Deposited Silicon-Based Material, And Related Methods	17/459272	8/27/2021
Entegris, Inc.	Ion Implantation System With Mixture Of Arc Chamber Materials	17/466362	9/3/2021
Entegris, Inc.	Etchant Compositions	17/480844	9/21/2021
Entegris, Inc.	Self-Locking Manifold And Filter	17/486127	9/27/2021
Entegris, Inc.	Membranes For Removing Metallic Species From Amines	17/488897	9/29/2021
Entegris, Inc.	Filtration Membranes, Systems, And Methods For Producing Purified Water	17/491700	10/1/2021
Entegris, Inc.	Microelectronic Device Cleaning Composition	17/491750	10/1/2021
Entegris, Inc.	Method And Systems Useful For Producing Aluminum Ions	17/492089	10/1/2021
Entegris, Inc.	Post CMP Cleaning Compositions	17/492257	10/1/2021
Entegris, Inc.	Storage And Delivery Vessel For Storing GeH ₄ , Using A Zeolitic Adsorbent	17/495363	10/6/2021
Entegris, Inc.	Grafted Polysulfone Membranes	17/503986	10/18/2021
Entegris, Inc.	Method For Preparing Iodosilanes	17/505685	10/20/2021
Entegris, Inc.	Adsorbent-Type Storage And Delivery Vessels With High Purity Delivery Of Gas, And Related Methods	17/505735	10/20/2021
Entegris, Inc.	Selective Alkylation Of Cyclopentadiene	17/507004	10/21/2021
Entegris, Inc.	Low Metal Content Polyolefin Filter Membrane	17/512474	10/27/2021
Entegris, Inc.	Coated Porous Polymeric Membranes	17/522159	11/9/2021
Entegris, Inc.	Modified Carbon Adsorbents	17/522970	11/10/2021
Entegris, Inc.	Articles Coated With Crack-Resistant Fluoro-Annealed Films And Methods Of Making	17/527228	11/16/2021
Entegris, Inc.	Filter Apparatus With Vented Core, Electrostatic Discharge Mitigation, Or Both	17/527870	11/16/2021
Entegris, Inc.	Filter Apparatus With Vented Core	17/527892	11/16/2021
Entegris, Inc.	Phase-Shift Reticle For Use In Photolithography	17/529840	11/18/2021
Entegris, Inc.	Porous Polyethylene Filter Membrane, And Related Filters And Methods	17/532773	11/22/2021

Registered Owner	Title	Application Number	Date Filed
Entegris, Inc.	Multi-Layer Composites With Varied Layer Thicknesses And Related Methods	17/541690	12/3/2021
Entegris, Inc.	Membranes For Acid-Sensitive Solvents	17/543362	12/6/2021
Entegris, Inc.	Process For Preparing Organotin Compounds	17/591007	2/2/2022
Entegris, Inc.	Germanium Tetrafluoride And Hydrogen Mixtures For An Ion Implantation System	17/688613	3/7/2022

SCHEDULE I

PATENTS OWNED BY ENTEGRIS GP, INC.

Patents

Registered Owner	Title	Registration Number	Date Filed
Entegris GP, Inc.	System And Method For Efficiently Separating Hydrogen Gas From A Mixed Gas Source	7396385	3/31/2005
Entegris GP, Inc.	System And Method For Reducing Thermal Shock In A Hydrogen Diffusion Cell	7407529	12/29/2004
Entegris GP, Inc.	Air Purification System With Regenerative Purification Units	7449054	8/25/2005
Entegris GP, Inc.	System And Method For Processing Fuel For Use By A Fuel Cell Using A Micro-Channel Catalytic Hydrogen Separator	7704485	1/27/2006
Entegris GP, Inc.	Composite Structure For High Efficiency Hydrogen Separation Containing Preformed Nano-Particles In A Bonded Layer	7749305	9/3/2006
Entegris GP, Inc.	Gas Purification With Carbon Based Materials	7918923	5/16/2006
Entegris GP, Inc.	Hydrogen Gas Separator System Having A Micro-Channel Construction For Efficiently Separating Hydrogen Gas From A Mixed Gas Source	7972417	3/21/2008
Entegris GP, Inc.	System And Method For Separating Hydrogen Gas From A Mixed Gas Source Using Composite Structure Tubes	8002875	9/18/2006
Entegris GP, Inc.	System And Method For Welding Small Diameter Tubes Into A High-Density Matrix	8230594	3/12/2007
Entegris GP, Inc.	System And Method For Welding A Plurality Of Small Diameter Palladium Alloy Tubes To A Common Base Plate In A Space Efficient Manner	9039814	4/18/2013
Entegris GP, Inc.	Hydrogen Gas Separator System Having A Micro-Channel Construction With A Tubular Wire Insert For Retaining Catalyst Material	9169118	5/4/2011
Entegris GP, Inc.	Method And System For Anhydrous Ammonia Recovery	9211493	11/20/2013

Registered Owner	Title	Registration Number	Date Filed
Entegris GP, Inc.	Nitrous Oxide Regenerable Room Temperature Purifier And Method	9643845	10/17/2016
Entegris GP, Inc.	System And Method For Ultra High Purity (UHP) Carbon Dioxide Purification	9695049	3/5/2015
Entegris GP, Inc.	Carbon Dioxide Compression And Delivery System	10537977	2/1/2017

Patent Applications

Registered Owner	Title	Application Number	Date Filed
Entegris GP, Inc.	Carbon Dioxide Compression And Delivery System	16/710404	12/11/2019

SCHEDULE I

PATENTS OWNED BY POCO GRAPHITE, INC.

Patents

Registered Owner	Title	Registration Number	Date Filed
Poco Graphite, Inc.	System, Method And Apparatus For Conversion Bonding Of Precursor Subcomponents Into A Unitary Monolith	7931853	11/9/2007
Poco Graphite, Inc.	Aqueous Formulations For Removing Metal Hard Mask And Post-Etch Residue With Cu/W Compatibility	10138117	7/31/2014
Poco Graphite, Inc.	Apparatus For Adjustable Stacker Bar Assembly Having Quick Change Features	D641029	8/3/2010

Patent Applications

None.

SCHEDULE I

PATENTS OWNED BY QED TECHNOLOGIES INTERNATIONAL, INC.

Patents

Registered Owner	Title	Registration Number	Date Filed
QED Technologies International, Inc.	UNIFORM THIN FILMS PRODUCED BY MAGNETORHEOLOGICAL FINISHING	6746310	8/6/2002
QED Technologies International, Inc.	METHOD AND APPARATUS FOR MEASURING AND CONTROLLING SOLIDS COMPOSITION OF A MAGNETORHEOLOGICAL FLUID	6893322	5/14/2004
QED Technologies International, Inc.	DELIVERY SYSTEM FOR MAGNETORHEOLOGICAL FLUID	6955589	5/22/2001
QED Technologies International, Inc.	METHOD FOR SELF-CALIBRATED SUB-APERTURE STITCHING FOR SURFACE FIGURE MEASUREMENT	6956657	11/25/2002
QED Technologies International, Inc.	METHOD AND APPARATUS FOR FORMING A DYNAMIC MAGNETIC SEAL USING MAGNETORHEOLOGICAL FLUID	7156724	12/15/2004
QED Technologies International, Inc.	METHOD FOR CALIBRATING THE GEOMETRY OF A MULTI-AXIS METROLOGY SYSTEM	7173691	12/22/2003
QED Technologies International, Inc.	METHOD FOR ACCURATE HIGH-RESOLUTION MEASUREMENTS OF ASPHERIC SURFACES	7433057	4/5/2006
QED Technologies International, Inc.	METHOD AND APPARATUS FOR MEASUREMENT OF MAGNETIC PERMEABILITY OF A MATERIAL	7557566	3/2/2007
QED Technologies International, Inc.	METHOD AND APPARATUS FOR MEASUREMENT OF MAGNETIC PERMEABILITY OF A MATERIAL	7888929	2/27/2008
QED Technologies International, Inc.	STITCHING OF NEAR-NULLED SUBAPERTURE MEASUREMENTS	8203719	4/8/2009
QED Technologies International, Inc.	SYSTEM FOR MAGNETORHEOLOGICAL FINISHING OF SUBSTRATES	8613640	12/23/2010

Registered Owner	Title	Registration Number	Date Filed
QED Technologies International, Inc.	METHOD AND APPARATUS FOR MEASUREMENT AND CONTROL OF MAGNETIC PARTICLE CONCENTRATION IN A MAGNETORHEOLOGICAL FLUID	8896293	4/13/2011
QED Technologies International, Inc.	SYSTEM FOR MAGNETORHEOLOGICAL FINISHING OF A SUBSTRATE	8944883	3/2/2010
QED Technologies International, Inc.	INTEGRATED WAVEFRONT SENSOR AND PROFILOMETER	9097612	11/22/2013
QED Technologies International, Inc.	MAGNETORHEOLOGICAL FLUID FOR ULTRASMOOTH POLISHING	9157010	7/18/2012

Patent Applications

Registered Owner	Title	Application Number	Date Filed
QED Technologies International, Inc.	HIGH REMOVAL RATE MAGNETORHEOLOGICAL FINISHING HEAD	17/640234	9/2/2020

SCHEDULE I

PATENTS OWNED BY CMC MATERIALS, INC.

Patents

Registered Owner	Title	Registration Number	Date Filed
CMC Materials, Inc.	POLISHING COMPOSITIONS AND USE THEREOF	6641632	11/18/2002
CMC Materials, Inc.	ANIONIC ABRASIVE PARTICLES TREATED WITH POSITIVELY CHARGED POLYELECTROLYTES FOR CMP	6776810	2/11/2002
CMC Materials, Inc.	POLISHING COMPOSITION CONTAINING CONDUCTING POLYMER	6811474	7/19/2002
CMC Materials, Inc.	SLURRY FOR MECHANICAL POLISHING (CMP) OF METALS AND USE THEREOF	6812193	8/30/2002
CMC Materials, Inc.	MULTI-LAYER POLISHING PAD MATERIAL FOR CMP	6884156	6/17/2003
CMC Materials, Inc.	MIXED-ABRASIVE POLISHING COMPOSITION AND METHOD FOR USING THE SAME	6896591	2/11/2003
CMC Materials, Inc.	MICROPOROUS POLISHING PADS	6896593	3/3/2004
CMC Materials, Inc.	MICROPOROUS POLISHING PADS	6899598	3/3/2004
CMC Materials, Inc.	MICROPOROUS POLISHING PADS	6913517	10/28/2002
CMC Materials, Inc.	MICROPOROUS POLISHING PADS	6935931	3/3/2004
CMC Materials, Inc.	USE OF NON-IONIC SURFACTANTS TO REDUCE Ta AND OXIDE REMOVAL RATE	6936543	10/11/2002
CMC Materials, Inc.	CMP PAD WITH COMPOSITE TRANSPARENT WINDOW	6960120	2/10/2003
CMC Materials, Inc.	CMP COMPOSITIONS FOR LOW-K DIELECTRIC MATERIALS	6974777	6/7/2002
CMC Materials, Inc.	ULTRASONIC WELDING METHOD FOR THE MANUFACTURE OF A POLISHING PAD COMPRISING AN OPTICALLY TRANSMISSIVE REGION	6997777	6/17/2003

Registered Owner	Title	Registration Number	Date Filed
CMC Materials, Inc.	POLISHING PAD WITH ORIENTED PORE STRUCTURE	6998166	6/17/2003
CMC Materials, Inc.	DRAG REDUCING AGENT SLURRIES HAVING ALFOLALCOHOLS AND PROCESSES FOR FORMING DRAG REDUCING AGENT SLURRIES HAVING ALFOLALCOHOLS	7012046	6/8/2001
CMC Materials, Inc.	COATED METAL OXIDE PARTICLES FOR CMP	7044836	4/21/2003
CMC Materials, Inc.	LOW SURFACE ENERGY CMP PAD	7059936	3/23/2004
CMC Materials, Inc.	CMP OF NOBLE METALS	7160807	6/30/2003
CMC Materials, Inc.	POLISHING COMPOSITION FOR NOBLE METALS	7161247	7/28/2004
CMC Materials, Inc.	POLISHING PAD WITH RECESSED WINDOW	7195539	9/19/2003
CMC Materials, Inc.	METHOD OF POLISHING A TUNGSTEN-CONTAINING SUBSTRATE	7247567	6/16/2004
CMC Materials, Inc.	POLISHING SYSTEM COMPRISING A HIGHLY BRANCHED POLYMER	7255810	1/9/2004
CMC Materials, Inc.	CMP OF COPPER/RUTHENIUM SUBSTRATES	7265055	10/26/2005
CMC Materials, Inc.	TRANSPARENT MICROPOROUS MATERIALS FOR CMP	7267607	6/22/2005
CMC Materials, Inc.	CHEMICAL-MECHANICAL POLISHING OF METALS IN AN OXIDIZED FORM	7288021	1/7/2004
CMC Materials, Inc.	TUNABLE SELECTIVITY SLURRIES IN CMP APPLICATIONS	7294576	6/29/2006
CMC Materials, Inc.	POLYMERIC INHIBITORS FOR ENHANCED PLANARIZATION	7311856	3/30/2005
CMC Materials, Inc.	METHOD FOR MANUFACTURING MICROPOROUS CMP MATERIALS HAVING CONTROLLED PORE SIZE	7311862	11/2/2005
CMC Materials, Inc.	METHODS FOR PRODUCING IN-SITU GROOVES IN CHEMICAL MECHANICAL PLANARIZATION (CMP) PADS, AND NOVEL CMP PAD DESIGNS	7377840	7/21/2004
CMC Materials, Inc.	CUSTOMIZED POLISH PADS FOR CHEMICAL MECHANICAL PLANARIZATION	7425172	3/25/2004

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CMC Materials, Inc.	MULTI-LAYER POLISHING PAD MATERIAL FOR CMP	7435161	4/25/2005
CMC Materials, Inc.	TRANSPARENT MICROPOROUS MATERIALS FOR CMP	7435165	10/28/2002
CMC Materials, Inc.	METHOD OF POLISHING A SILICON-CONTAINING DIELECTRIC	7442645	2/2/2004
CMC Materials, Inc.	COMPOSITIONS AND METHODS FOR CMP OF LOW-K DIELECTRIC MATERIALS	7456107	11/9/2006
CMC Materials, Inc.	CHEMICAL MECHANICAL POLISHING COMPOSITION AND METHOD FOR USING THE SAME	7485241	9/11/2003
CMC Materials, Inc.	POLISHING COMPOSITION AND METHOD FOR HIGH SILICON NITRIDE TO SILICON OXIDE REMOVAL RATE RATIOS	7504044	11/5/2004
CMC Materials, Inc.	CMP COMPOSITION COMPRISING SURFACTANT	7524347	10/28/2004
CMC Materials, Inc.	POLISHING COMPOSITION AND METHOD FOR HIGH SILICON NITRIDE TO SILICON OXIDE REMOVAL RATE RATIOS	7531105	12/6/2005
CMC Materials, Inc.	BULK POLYMERIZATION REACTOR METHODS	7534403	4/18/2006
CMC Materials, Inc.	METHOD OF POLISHING A TUNGSTEN-CONTAINING SUBSTRATE	7582127	2/1/2007
CMC Materials, Inc.	BULK POLYMERIZATION REACTOR METHODS	7582708	6/12/2002
CMC Materials, Inc.	POLISHING COMPOSITION CONTAINING POLYETHER AMINE	7585340	4/27/2006
CMC Materials, Inc.	CUSTOMIZED POLISH PADS FOR CHEMICAL MECHANICAL PLANARIZATION	7704122	11/28/2007
CMC Materials, Inc.	CUSTOMIZED POLISH PADS FOR CMP AND METHODS OF FABRICATION AND USE THEREOF	7704125	10/14/2005
CMC Materials, Inc.	CHEMICAL MECHANICAL POLISHING COMPOSITION AND METHOD FOR USING THE SAME	7754098	9/10/2004
CMC Materials, Inc.	CMP SYSTEM UTILIZING HALOGEN ADDUCT	7776230	2/9/2007

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CMC Materials, Inc.	COMPOSITIONS AND METHODS FOR CMP OF SEMICONDUCTOR MATERIALS	7803203	2/9/2007
CMC Materials, Inc.	POLISHING COMPOSITION AND METHOD FOR HIGH SILICON NITRIDE TO SILICON OXIDE REMOVAL RATE RATIOS	7846842	2/2/2009
CMC Materials, Inc.	COMPOSITIONS AND METHODS FOR CMP OF PHASE CHANGE ALLOYS COMPOSITIONS AND METHODS FOR CMP OF PHASE CHANGE ALLOYS	7897061	1/29/2007
CMC Materials, Inc.	COMPOSITION AND METHOD FOR POLISHING NICKEL-PHOSPHOROUS-COATED ALUMINUM HARD DISKS	7922926	1/8/2008
CMC Materials, Inc.	COMPOSITION AND METHOD FOR PLANARIZING SURFACES	7955519	9/30/2005
CMC Materials, Inc.	COPPER-PASSIVATING CMP COMPOSITIONS AND METHODS	7955520	11/27/2007
CMC Materials, Inc.	POLISHING COMPOSITION AND METHOD UTILIZING ABRASIVE PARTICLES TREATED WITH AN AMINOSILANE	7994057	9/19/2008
CMC Materials, Inc.	SILICON CARBIDE POLISHING METHOD UTILIZING WATER-SOLUBLE OXIDIZERS	7998866	3/5/2008
CMC Materials, Inc.	STABLE, HIGH RATE SILICON SLURRY	8017524	5/23/2008
CMC Materials, Inc.	METAL ION-CONTAINING CMP COMPOSITION AND METHOD FOR USING THE SAME	8038752	10/27/2004
CMC Materials, Inc.	USE OF CMP FOR ALUMINUM MIRROR AND SOLAR CELL FABRICATION	8062096	6/30/2005
CMC Materials, Inc.	POLISHING PAD WITH MICROPOROUS REGIONS	8075372	9/1/2004
CMC Materials, Inc.	BULK POLYMERIZATION REACTORS	8105547	8/21/2006
CMC Materials, Inc.	DRAG REDUCING AGENT AND METHOD OF USE	8106114	10/29/2009
CMC Materials, Inc.	BULK POLYMERIZATION REACTORS FOR PRODUCING DRAG REDUCER	8110150	10/28/2009

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CMC Materials, Inc.	POLISHING COMPOSITION AND METHOD FOR HIGH SILICON NITRIDE TO SILICON OXIDE REMOVAL RATE RATIOS	8138091	4/2/2009
CMC Materials, Inc.	POLISHING COMPOSITION FOR NICKEL-PHOSPHOROUS MEMORY DISKS	8226841	2/3/2009
CMC Materials, Inc.	METHOD OF POLISHING NICKEL-PHOSPHOROUS	8247326	7/10/2008
CMC Materials, Inc.	METHODS AND COMPOSITIONS FOR POLISHING SILICON-CONTAINING SUBSTRATES	8247327	7/30/2008
CMC Materials, Inc.	BARRIER SLURRY FOR LOW-K DIELECTRICS	8252687	9/3/2009
CMC Materials, Inc.	SILICON POLISHING COMPOSITIONS WITH HIGH RATE AND LOW DEFECTIVITY	8273142	9/2/2010
CMC Materials, Inc.	METHODS FOR PRODUCING IN-SITU GROOVES IN CHEMICAL MECHANICAL PLANARIZATION (CMP) PADS, AND NOVEL CMP PAD DESIGNS	8287793	11/28/2007
CMC Materials, Inc.	CUSTOMIZED POLISH PADS FOR CHEMICAL MECHANICAL PLANARIZATION	8380339	4/26/2010
CMC Materials, Inc.	POLISHING SYSTEMS	8383003	6/18/2009
CMC Materials, Inc.	COMPOSITIONS FOR POLISHING ALUMINUM/COPPER AND TITANIUM IN DAMASCENE STRUCTURES	8425797	3/21/2008
CMC Materials, Inc.	METAL-PASSIVATING CMP COMPOSITIONS AND METHODS	8435421	1/11/2011
CMC Materials, Inc.	METHOD OF FABRICATING A POLISHING PAD WITH AN END-POINT DETECTION REGION FOR EDDY CURRENT END-POINT DETECTION	8439994	9/30/2010
CMC Materials, Inc.	METHOD OF POLISHING A SILICON-CONTAINING DIELECTRIC	8486169	9/26/2008
CMC Materials, Inc.	OXIDATION-STABILIZED CMP COMPOSITIONS AND METHODS	8497209	4/21/2010

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CMC Materials, Inc.	POLISHING COMPOSITION CONTAINING HYBRID ABRASIVE FOR NICKEL-PHOSPHOROUS COATED MEMORY DISKS	8518135	8/27/2012
CMC Materials, Inc.	COMPOSITIONS FOR CMP OF SEMICONDUCTOR MATERIALS	8529680	8/11/2010
CMC Materials, Inc.	POLISHING COMPOSITION FOR NICKEL-PHOSPHOROUS MEMORY DISKS	8557137	7/11/2012
CMC Materials, Inc.	COMPOSITIONS FOR POLISHING SILICON-CONTAINING SUBSTRATES	8597540	7/20/2012
CMC Materials, Inc.	COMPOSITION AND METHOD FOR POLISHING ALUMINUM SEMICONDUCTOR SUBSTRATES	8623766	9/20/2011
CMC Materials, Inc.	METHOD FOR POLISHING ALUMINUM/COPPER AND TITANIUM IN DAMASCENE STRUCTURES	8623767	3/18/2013
CMC Materials, Inc.	POLISHING PAD FOR EDDY CURRENT END-POINT DETECTION	8628384	9/30/2010
CMC Materials, Inc.	HOMOGENEOUS POLISHING PAD FOR EDDY CURRENT END-POINT DETECTION	8657653	9/30/2010
CMC Materials, Inc.	DRAG REDUCING COMPOSITIONS AND METHODS OF MANUFACTURE AND USE	8669304	6/9/2009
CMC Materials, Inc.	CMP COMPOSITIONS AND METHODS FOR SUPPRESSING POLYSILICON REMOVAL RATES	8691695	6/18/2010
CMC Materials, Inc.	COMPOSITION AND METHOD FOR POLISHING POLYSILICON	8697576	12/17/2010
CMC Materials, Inc.	POLISHING PAD WITH MULTI-MODAL DISTRIBUTION OF PORE DIAMETERS	8702479	12/27/2010
CMC Materials, Inc.	CUSTOMIZED POLISHING PADS FOR CMP AND METHODS OF FABRICATION AND USE THEREOF	8715035	10/16/2008
CMC Materials, Inc.	POLISHING COMPOSITION CONTAINING POLYETHER AMINE	8741009	7/29/2009
CMC Materials, Inc.	COMPOSITIONS AND METHODS FOR POLISHING SILICON NITRIDE MATERIALS	8759216	6/7/2006

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CMC Materials, Inc.	CMP COMPOSITION CONTAINING ZIRCONIA PARTICLES AND METHOD OF USE	8778212	5/22/2012
CMC Materials, Inc.	COMPOSITIONS AND METHODS FOR SELECTIVE POLISHING OF SILICON NITRIDE MATERIALS	8808573	4/15/2011
CMC Materials, Inc.	COMPOSITION AND METHOD FOR POLISHING BULK SILICON	8815110	4/16/2010
CMC Materials, Inc.	POLYPYRROLIDONE POLISHING COMPOSITION AND METHOD	8821215	9/7/2012
CMC Materials, Inc.	CUSTOMIZED POLISH PADS FOR CMP AND METHODS OF FABRICATION AND USE THEREOF	8864859	11/28/2007
CMC Materials, Inc.	COMPOSITION AND METHOD FOR POLISHING BULK SILICON	8883034	9/16/2009
CMC Materials, Inc.	CMP COMPOSITIONS SELECTIVE FOR OXIDE AND NITRIDE WITH HIGH REMOVAL RATE AND LOW DEFECTIVITY	8906252	5/21/2013
CMC Materials, Inc.	CMP COMPOSITIONS SELECTIVE FOR OXIDE AND NITRIDE WITH HIGH REMOVAL RATE AND LOW DEFECTIVITY	8916061	3/13/2013
CMC Materials, Inc.	POLISHING PAD WITH ALIGNMENT APERTURE	8920219	7/15/2011
CMC Materials, Inc.	CHEMICAL-MECHANICAL POLISHING COMPOSITION CONTAINING ZIRCONIA AND METAL OXIDIZER	8920667	1/30/2013
CMC Materials, Inc.	METHODS FOR PRODUCING IN-SITU GROOVES IN CHEMICAL MECHANICAL PLANARIZATION (CMP) PADS, AND NOVEL CMP PAD DESIGNS	8932116	9/12/2012
CMC Materials, Inc.	DRAG REDUCING COMPOSITIONS AND METHODS OF MANUFACTURE AND USE	8933149	3/8/2013
CMC Materials, Inc.	CMP COMPOSITIONS WITH LOW SOLIDS CONTENT AND METHODS RELATED THERETO	8961807	3/15/2013

Registered Owner	Title	Registration Number	Date Filed
CMC Materials, Inc.	POLISHING PAD WITH ALIGNMENT FEATURE	8968058	5/5/2011
CMC Materials, Inc.	CMP PAD WITH LOCAL AREA TRANSPARENCY	9017140	1/13/2010
CMC Materials, Inc.	POLISHING PAD FOR EDDY CURRENT END-POINT DETECTION	9028302	12/6/2013
CMC Materials, Inc.	POLISHING COMPOSITION AND METHOD UTILIZING ABRASIVE PARTICLES TREATED WITH AN AMINOSILANE	9028572	9/19/2008
CMC Materials, Inc.	POLISHING COMPOSITION FOR NICKEL-PHOSPHOROUS-COATED MEMORY DISKS	9039914	5/23/2012
CMC Materials, Inc.	POLISHING PAD WITH FOUNDATION LAYER AND POLISHING SURFACE LAYER	9067297	11/29/2011
CMC Materials, Inc.	POLISHING PAD WITH GROOVED FOUNDATION LAYER AND POLISHING SURFACE LAYER	9067298	11/29/2011
CMC Materials, Inc.	CMP METHOD FOR METAL-CONTAINING SUBSTRATES	9074118	7/6/2007
CMC Materials, Inc.	MIXED ABRASIVE TUNGSTEN CMP COMPOSITION	9127187	3/24/2014
CMC Materials, Inc.	ONIUM-CONTAINING CMP COMPOSITIONS AND METHODS OF USE THEREOF	9129907	9/8/2006
CMC Materials, Inc.	SOFT POLISHING PAD FOR POLISHING A SEMICONDUCTOR SUBSTRATE	9156124	7/8/2010
CMC Materials, Inc.	POLISHING PAD WITH LIGHT-STABLE LIGHT-TRANSMITTING REGION	9156125	4/11/2012
CMC Materials, Inc.	CMP COMPOSITIONS SELECTIVE FOR OXIDE OVER POLYSILICON AND NITRIDE WITH HIGH REMOVAL RATE AND LOW DEFECTIVITY	9165489	5/29/2014
CMC Materials, Inc.	GROOVED CMP PAD	9180570	3/16/2009
CMC Materials, Inc.	POLISHING PAD WITH CONCENTRIC OR APPROXIMATELY CONCENTRIC POLYGON GROOVE PATTERN	9211628	1/26/2011
CMC Materials, Inc.	POLISHING PAD HAVING POROGENS WITH LIQUID FILLER	9238294	6/18/2014

Registered Owner	Title	Registration Number	Date Filed
CMC Materials, Inc.	CMP COMPOSITIONS SELECTIVE FOR OXIDE AND NITRIDE WITH HIGH REMOVAL RATE AND LOW DEFECTIVITY	9238753	3/13/2013
CMC Materials, Inc.	COMPOSITION FOR TUNGSTEN CMP	9238754	3/11/2014
CMC Materials, Inc.	POLISHING PAD WITH ALIGNMENT FEATURE	9249273	1/30/2015
CMC Materials, Inc.	DRAG REDUCING COMPOSITIONS AND METHODS OF MANUFACTURE AND USE	9267094	8/22/2014
CMC Materials, Inc.	POLISHING SYSTEMS	9272388	2/1/2013
CMC Materials, Inc.	CUSTOMIZED POLISHING PADS FOR CMP AND METHODS OF FABRICATION AND USE THEREOF	9278424	9/17/2014
CMC Materials, Inc.	WET-PROCESS CERIA COMPOSITIONS FOR SELECTIVELY POLISHING SUBSTRATES, AND METHODS RELATED THERETO	9279067	10/10/2013
CMC Materials, Inc.	WET-PROCESS CERIA COMPOSITIONS FOR POLISHING SUBSTRATES, AND METHODS RELATED THERETO	9281210	10/10/2013
CMC Materials, Inc.	POLISHING PAD WITH HOMOGENEOUS BODY HAVING DISCRETE PROTRUSIONS THEREON	9296085	10/31/2014
CMC Materials, Inc.	COMPOSITIONS AND METHODS FOR CMP OF SILICON OXIDE, SILICON NITRIDE, AND POLYSILICON MATERIALS	9303187	7/22/2013
CMC Materials, Inc.	COMPOSITION FOR TUNGSTEN CMP	9303188	3/11/2014
CMC Materials, Inc.	COMPOSITION FOR TUNGSTEN CMP	9303189	3/11/2014
CMC Materials, Inc.	MIXED ABRASIVE TUNGSTEN CMP COMPOSITION	9303190	3/24/2014
CMC Materials, Inc.	COMPOSITION FOR TUNGSTEN BUFFING	9309442	3/21/2014
CMC Materials, Inc.	POLISHING COMPOSITION FOR NICKEL-PHOSPHOROUS MEMORY DISKS	9330703	6/4/2009

Registered Owner	Title	Registration Number	Date Filed
CMC Materials, Inc.	MIXED ABRASIVE POLISHING COMPOSITIONS	9340706	10/10/2013
CMC Materials, Inc.	COMPOSITIONS FOR POLISHING ALUMINUM/COPPER AND TITANIUM IN DAMASCENE STRUCTURES	9343330	12/6/2006
CMC Materials, Inc.	COMPOSITION AND METHOD FOR POLISHING GLASS	9358659	3/4/2013
CMC Materials, Inc.	GROOVED CMP PADS	9375823	10/2/2015
CMC Materials, Inc.	POLISHING COMPOSITION FOR EDGE ROLL-OFF IMPROVEMENT	9401104	5/5/2014
CMC Materials, Inc.	CMP POLISHING PAD HAVING EDGE EXCLUSION REGION OF OFFSET CONCENTRIC GROOVE PATTERN	9409276	10/16/2014
CMC Materials, Inc.	DRAG REDUCING COMPOSITIONS AND METHODS OF MANUFACTURE AND USE	9416331	8/23/2011
CMC Materials, Inc.	CMP COMPOSITIONS EXHIBITING REDUCED DISHING IN STI WAFER POLISHING	9422455	12/12/2014
CMC Materials, Inc.	COLLOIDAL SILICA CHEMICAL MECHANICAL POLISHING COMPOSITION	9422456	6/25/2015
CMC Materials, Inc.	COLLOIDAL SILICA CHEMICAL-MECHANICAL POLISHING CONCENTRATE	9422457	6/25/2015
CMC Materials, Inc.	SILICON POLISHING COMPOSITIONS WITH IMPROVED PSD PERFORMANCE	9425037	1/17/2012
CMC Materials, Inc.	CHEMICAL-MECHANICAL PLANARIZATION OF POLYMER FILMS	9434859	9/24/2013
CMC Materials, Inc.	POLISHING PAD WITH POROUS INTERFACE AND SOLID CORE, AND RELATED APPARATUS AND METHODS	9463551	8/14/2014
CMC Materials, Inc.	NICKEL PHOSPHOROUS CMP COMPOSITIONS AND METHODS	9469787	10/13/2015
CMC Materials, Inc.	COMPOSITION AND METHOD FOR POLISHING MEMORY HARD DISKS EXHIBITING REDUCED EDGE ROLL-OFF	9481811	2/20/2015

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CMC Materials, Inc.	COLLOIDAL SILICA CHEMICAL-MECHANICAL POLISHING COMPOSITION	9499721	6/25/2015
CMC Materials, Inc.	POLISHING COMPOSITION CONTAINING CERIA ABRASIVE	9505952	3/5/2015
CMC Materials, Inc.	COBALT INHIBITOR COMBINATION FOR IMPROVED DISHING	9528030	10/21/2015
CMC Materials, Inc.	POLISHING COMPOSITION AND METHOD FOR NICKEL-PHOSPHOROUS COATED MEMORY DISKS	9534147	10/16/2014
CMC Materials, Inc.	METHOD TO SELECTIVELY POLISH SILICON CARBIDE FILMS	9548211	12/3/2009
CMC Materials, Inc.	POLISHING PAD WITH MULTI-MODAL DISTRIBUTION OF PORE DIAMETERS	9555518	2/19/2014
CMC Materials, Inc.	COPPER BARRIER CHEMICAL-MECHANICAL POLISHING COMPOSITION	9556363	6/25/2015
CMC Materials, Inc.	COMPOSITION FOR TUNGSTEN CMP	9566686	12/10/2015
CMC Materials, Inc.	TUNGSTEN CHEMICAL-MECHANICAL POLISHING COMPOSITION	9567491	6/25/2015
CMC Materials, Inc.	SELECTIVE NITRIDE SLURRIES WITH IMPROVED STABILITY AND IMPROVED POLISHING CHARACTERISTICS	9597768	9/9/2015
CMC Materials, Inc.	POLISHING PAD WITH POLISHING SURFACE LAYER HAVING AN APERTURE OR OPENING ABOVE A TRANSPARENT FOUNDATION LAYER	9597769	6/4/2012
CMC Materials, Inc.	POLISHING PAD WITH APERTURE	9597770	11/21/2014
CMC Materials, Inc.	HOMOGENEOUS POLISHING PAD FOR EDDY CURRENT END-POINT DETECTION	9597777	1/10/2014
CMC Materials, Inc.	POLISHING COMPOSITION AND METHOD UTILIZING ABRASIVE PARTICLES TREATED WITH AN AMINOSILANE	9617450	3/13/2015
CMC Materials, Inc.	TUNGSTEN-PROCESSING SLURRY WITH CATIONIC SURFACTANT	9631122	10/28/2015

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CMC Materials, Inc.	COMPOSITIONS AND METHODS FOR SELECTIVE POLISHING OF SILICON NITRIDE MATERIALS	9633863	7/11/2012
CMC Materials, Inc.	POLISHING PAD HAVING POLISHING SURFACE WITH CONTINUOUS PROTRUSIONS	9649742	1/22/2013
CMC Materials, Inc.	POLISHING PAD WITH OFFSET CONCENTRIC GROOVING PATTERN AND METHOD FOR POLISHING A SUBSTRATE THEREWITH	9687956	11/5/2013
CMC Materials, Inc.	COBALT POLISHING ACCELERATORS	9688885	10/21/2015
CMC Materials, Inc.	COMPOSITION AND METHOD FOR POLISHING BULK SILICON	9701871	10/8/2014
CMC Materials, Inc.	CMP METHOD FOR SUPPRESSION OF TITANIUM NITRIDE AND TITANIUM/TITANIUM NITRIDE REMOVAL	9752057	2/6/2015
CMC Materials, Inc.	POLISHING COMPOSITION CONTAINING CATIONIC POLYMER ADDITIVE	9758697	3/5/2015
CMC Materials, Inc.	TUNGSTEN-PROCESSING SLURRY WITH CATIONIC SURFACTANT AND CYCLODEXTRIN	9771496	10/28/2015
CMC Materials, Inc.	CMP PROCESSING COMPOSITION COMPRISING ALKYLAMINE AND CYCLODEXTRIN	9796882	12/29/2016
CMC Materials, Inc.	METHODS FOR FABRICATING A CHEMICAL-MECHANICAL POLISHING COMPOSITION	9803106	6/25/2015
CMC Materials, Inc.	CMP COMPOSITION FOR SILICON NITRIDE REMOVAL	9803109	2/3/2015
CMC Materials, Inc.	MULTI-LAYER POLISHING PAD FOR CMP	9818618	4/30/2015
CMC Materials, Inc.	POLISHING COMPOSITION CONTAINING CERIA ABRASIVE	9828528	10/31/2016
CMC Materials, Inc.	CLEANING COMPOSITION AND METHOD FOR CLEANING SEMICONDUCTOR WAFERS AFTER CMP	9828574	1/12/2016
CMC Materials, Inc.	COBALT DISHING CONTROL AGENTS	9834704	10/21/2015

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CMC Materials, Inc.	CMP COMPOSITIONS AND METHODS FOR SELECTIVE REMOVAL OF SILICON NITRIDE	9850402	12/9/2013
CMC Materials, Inc.	COBALT POLISHING ACCELERATORS	9850403	5/24/2017
CMC Materials, Inc.	POLISHING PAD WITH FOUNDATION LAYER AND WINDOW ATTACHED THERETO	9868185	11/3/2015
CMC Materials, Inc.	COMPOSITION AND METHOD FOR POLISHING MEMORY HARD DISKS	9909032	1/15/2014
CMC Materials, Inc.	POLISHING PAD WITH FOUNDATION LAYER AND POLISHING SURFACE LAYER	9931728	6/5/2015
CMC Materials, Inc.	POLISHING PAD WITH GROOVED FOUNDATION LAYER AND POLISHING SURFACE LAYER	9931729	6/1/2015
CMC Materials, Inc.	SLURRY FOR CHEMICAL MECHANICAL POLISHING OF COBALT	9944828	10/21/2015
CMC Materials, Inc.	CMP POROUS PAD WITH PARTICLES IN A POLYMERIC MATRIX	9951054	4/15/2010
CMC Materials, Inc.	METHODS AND COMPOSITIONS FOR PROCESSING DIELECTRIC SUBSTRATE	10029345	7/12/2016
CMC Materials, Inc.	TUNGSTEN PROCESSING SLURRY WITH CATALYST	10066126	1/6/2016
CMC Materials, Inc.	CLEANING COMPOSITION FOLLOWING CMP AND METHODS RELATED THERETO	10100272	7/17/2015
CMC Materials, Inc.	CORROSION INHIBITORS AND RELATED COMPOSITIONS AND METHODS	10124464	10/21/2015
CMC Materials, Inc.	POLISHING PAD HAVING POLISHING SURFACE WITH CONTINUOUS PROTRUSIONS HAVING TAPERED SIDEWALLS	10160092	3/14/2013
CMC Materials, Inc.	CUSTOMIZED POLISHING PADS FOR CMP AND METHODS OF FABRICATION AND USE THEREOF	10220487	2/12/2016
CMC Materials, Inc.	POLISHING PAD HAVING POLISHING SURFACE WITH CONTINUOUS PROTRUSIONS	10293459	4/5/2017

Registered Owner	Title	Registration Number	Date Filed
CMC Materials, Inc.	COMPOSITION AND METHOD FOR POLISHING SILICON CARBIDE	10294399	1/5/2017
CMC Materials, Inc.	POLISHING COMPOSITION COMPRISING CATIONIC POLYMER ADDITIVE	10301508	1/25/2017
CMC Materials, Inc.	CMP COMPOSITION AND METHOD FOR POLISHING RIGID DISKS	10315285	4/5/2016
CMC Materials, Inc.	POLISHING COMPOSITION COMPRISING AN AMINE-CONTAINING SURFACTANT	10344186	6/21/2017
CMC Materials, Inc.	CMP COMPOSITIONS AND METHODS FOR POLISHING NICKEL-PHOSPHOROUS SURFACES	10358579	12/3/2013
CMC Materials, Inc.	POLISHING COMPOSITION CONTAINING CERIA PARTICLES AND METHOD OF USE	10414947	2/29/2016
CMC Materials, Inc.	METHOD OF POLISHING GROUP III-V MATERIALS	10418248	2/15/2017
CMC Materials, Inc.	COMPOSITION AND METHOD FOR POLISHING MEMORY HARD DISKS EXHIBITING REDUCED EDGE ROLL OFF	10479911	6/5/2018
CMC Materials, Inc.	SYSTEMS FOR MIXING A LIQUID AND RELATED METHODS	10486124	8/23/2017
CMC Materials, Inc.	POLISHING COMPOSITION AND METHOD UTILIZING ABRASIVE PARTICLES TREATED WITH AN AMINOSILANE	10508219	11/9/2016
CMC Materials, Inc.	COMPOSITION AND METHOD FOR REMOVING RESIDUE FROM CHEMICAL-MECHANICAL PLANARIZATION SUBSTRATE	10522341	11/29/2017
CMC Materials, Inc.	POLYURETHANE CMP PADS HAVING A HIGH MODULUS RATIO	10562149	9/23/2016
CMC Materials, Inc.	CMP COMPOSITIONS CONTAINING POLYMER COMPLEXES AND AGENTS FOR STI APPLICATIONS	10584266	3/14/2018
CMC Materials, Inc.	SELF-STOPPING POLISHING COMPOSITION AND METHOD FOR BULK OXIDE PLANARIZATION	10619075	3/23/2018
CMC Materials, Inc.	SELF-STOPPING POLISHING COMPOSITION AND METHOD FOR BULK OXIDE PLANARIZATION	10619076	2/8/2019

Registered Owner	Title	Registration Number	Date Filed
CMC Materials, Inc.	METHODS AND COMPOSITIONS FOR PROCESSING DIELECTRIC SUBSTRATE	10639766	6/26/2018
CMC Materials, Inc.	CMP COMPOSITIONS SELECTIVE FOR OXIDE AND NITRIDE WITH IMPROVED DISHING AND PATTERN SELECTIVITY	10640679	10/16/2017
CMC Materials, Inc.	CHEMICAL-MECHANICAL PROCESSING SLURRY AND METHODS	10640680	4/12/2018
CMC Materials, Inc.	TUNGSTEN BUFF POLISHING COMPOSITIONS WITH IMPROVED TOPOGRAPHY	10647887	1/8/2018
CMC Materials, Inc.	COMPOSITION FOR TUNGSTEN CMP	10676647	12/31/2018
CMC Materials, Inc.	CHEMICAL-MECHANICAL PROCESSING SLURRY AND METHODS FOR PROCESSING A NICKEL SUBSTRATE SURFACE	10792785	6/6/2017
CMC Materials, Inc.; Lee Krywitsky	SAFETY CLOSURES AND PUMPING SYSTEMS	10184469	12/19/2014
CMC Materials, Inc.	SELF-STOPPING POLISHING COMPOSITION AND METHOD FOR BULK OXIDE PLANARIZATION	10920107	2/21/2020
CMC Materials, Inc.	COMPOSITION AND METHOD FOR METAL CMP	10968366	12/4/2018
CMC Materials, Inc.	CHEMICAL-MECHANICAL PROCESSING SLURRY AND METHODS FOR PROCESSING A NICKEL SUBSTRATE SURFACE	10968377	4/12/2018
CMC Materials, Inc.	COMPOSITION AND METHOD FOR COPPER BARRIER CMP	10988635	12/4/2018
CMC Materials, Inc.	LOW DENSITY POLISHING PAD	10946495	1/30/2015
CMC Materials, Inc.	POLISHING COMPOSITION AND METHOD UTILIZING ABRASIVE PARTICLES TREATED WITH AN AMINOSILANE	11034862	10/25/2019
CMC Materials, Inc.	SURFACE TREATED ABRASIVE PARTICLES FOR TUNGSTEN BUFF APPLICATIONS	11043151	10/3/2017
CMC Materials, Inc.	POLISHING PAD CARRIER	D640057	5/29/2009

Patent Applications

Registered Owner	Title	Application Number	Date Filed
CMC Materials, Inc.	ALTERNATIVE OXIDIZING AGENTS FOR COBALT CMP	15/649378	7/13/2017
CMC Materials, Inc.	NITRIDE INHIBITORS FOR HIGH SELECTIVITY OF TiN-SiN CMP APPLICATIONS	15/706192	9/15/2017
CMC Materials, Inc.	COMPOSITION AND METHOD FOR POLISHING MEMORY HARD DISKS EXHIBITING REDUCED SURFACE SCRATCHING	15/817959	11/20/2017
CMC Materials, Inc.	TUNGSTEN BULK POLISHING METHOD WITH IMPROVED TOPOGRAPHY	15/866008	1/9/2018
CMC Materials, Inc.	COATED COMPRESSIVE SUBPAD FOR CHEMICAL MECHANICAL POLISHING	15/875773	1/19/2018
CMC Materials, Inc.	COMPOSITION FOR TUNGSTEN CMP	16/131180	9/14/2018
CMC Materials, Inc.	COMPOSITION AND METHOD FOR COBALT CMP	16/208703	12/4/2018
CMC Materials, Inc.	COMPOSITION AND METHOD FOR SILICON NITRIDE CMP	16/208779	12/4/2018
CMC Materials, Inc.	COMPOSITION AND METHOD FOR POLISHING SILICON CARBIDE	16/389097	4/19/2019
CMC Materials, Inc.	METHOD TO INCREASE BARRIER FILM REMOVAL RATE IN BULK TUNGSTEN SLURRY	16/513404	7/16/2019
CMC Materials, Inc.	OXIDIZER FREE SLURRY FOR RUTHENIUM CMP	16/706991	12/9/2019
CMC Materials, Inc.	DUAL ADDITIVE COMPOSITION FOR POLISHING MEMORY HARD DISKS EXHIBITING EDGE ROLL OFF	16/729905	12/30/2019
CMC Materials, Inc.	ADDITIVES TO IMPROVE PARTICLE DISPERSION FOR CMP SLURRY	16/826409	3/23/2020
CMC Materials, Inc.	SURFACE COATED ABRASIVE PARTICLES FOR TUNGSTEN BUFF APPLICATIONS	16/849021	4/15/2020
CMC Materials, Inc.	CHEMICAL MECHANICAL PLANARIZATION PADS WITH CONSTANT GROOVE VOLUME	16/868755	5/7/2020
CMC Materials, Inc.	CHEMICAL MECHANICAL PLANARIZATION PADS VIA VAT-BASED PRODUCTION	16/868965	5/7/2020

Registered Owner	Title	Application Number	Date Filed
CMC Materials, Inc.	SOLID POLYMER ELECTROLYTE COMPOSITIONS AND METHODS OF PREPARING SAME	16/895714	6/8/2020
CMC Materials, Inc.	SECONDARY BATTERY CELL WITH SOLID POLYMER ELECTROLYTE	16/895769	6/8/2020
CMC Materials, Inc.	POLISHING PAD EMPLOYING POLYAMINE AND CYCLOHEXANEDIMETHANOL CURATIVES	16/923688	7/8/2020
CMC Materials, Inc.	COMPOSITION AND METHOD FOR POLYSILICON CMP	17/009961	9/2/2020
CMC Materials, Inc.	POLISHING COMPOSITION AND METHOD WITH HIGH SELECTIVITY FOR SILICON NITRIDE AND POLYSILICON OVER SILICON OXIDE	17/076989	10/22/2020
CMC Materials, Inc.	COMPOSITION AND METHOD FOR DIELECTRIC CMP	17/077070	10/22/2020
CMC Materials, Inc.	COMPOSITION AND METHOD FOR DIELECTRIC CMP	17/077155	10/22/2020
CMC Materials, Inc.	COMPOSITION AND METHOD FOR SILICON OXIDE AND CARBON DOPED SILICON OXIDE CMP	17/077295	10/22/2020
CMC Materials, Inc.	SELF-STOPPING POLISHING COMPOSITION AND METHOD	17/077414	10/22/2020
CMC Materials, Inc.	COMPOSITION AND METHOD FOR SELECTIVE OXIDE CMP	17/077485	10/22/2020
CMC Materials, Inc.	DERIVATIZED POLYAMINO ACIDS	17/123295	12/16/2020
CMC Materials, Inc.	CMP COMPOSITION INCLUDING A NOVEL ABRASIVE	17/217097	3/30/2021
CMC Materials, Inc.	SILICON WAFER POLISHING COMPOSITION AND METHOD	17/379279	7/19/2021
CMC Materials, Inc.	CMP COMPOSITION INCLUDING ANIONIC AND CATIONIC INHIBITORS	17/384940	7/26/2021
CMC Materials, Inc.	TITANIUM DIOXIDE CONTAINING RUTHENIUM CHEMICAL MECHANICAL POLISHING SLURRY	17/391674	8/2/2021
CMC Materials, Inc.	SILICA-BASED SLURRY FOR SELECTIVE POLISHING OF CARBON-BASED FILMS	17/474543	9/14/2021

Registered Owner	Title	Application Number	Date Filed
CMC Materials, Inc.	CHEMICAL MECHANICAL PLANARIZATION PAD WITH A RELEASE LINER COMPRISING A PULL TAB	17/478690	9/17/2021
CMC Materials, Inc.	UV-CURABLE RESINS USED FOR CHEMICAL MECHANICAL POLISHING PADS	17/503422	10/18/2021
CMC Materials, Inc.	SELF-STOPPING POLISHING COMPOSITION AND METHOD FOR HIGH TOPOLOGICAL SELECTIVITY	17/557412	12/21/2021
CMC Materials, Inc.	SUBPAD DESIGN HAVING POROGENS WITH POLYMERIC SHELLS	17/557461	12/21/2021
CMC Materials, Inc.	ENDPOINT WINDOW WITH CONTROLLED TEXTURE SURFACE	17/582667	1/24/2022
CMC Materials, Inc.	COMPOSITION AND METHOD FOR POLISHING BORON DOPED POLYSILICON	17/584532	1/26/2022
CMC Materials, Inc.	CERIA-BASED SLURRY COMPOSITIONS FOR SELECTIVE AND NONSELECTIVE CMP OF SILICON OXIDE, SILICON NITRIDE, AND POLYSILICON	17/592279	2/3/2022
CMC Materials, Inc.	CERIA-BASED SLURRY COMPOSITIONS FOR SELECTIVE AND NONSELECTIVE CMP OF SILICON OXIDE, SILICON NITRIDE, AND POLYSILICON	17/592294	2/3/2022
CMC Materials, Inc.	SILICON CARBONITRIDE POLISHING COMPOSITION AND METHOD	17/592612	2/4/2022
CMC Materials, Inc.	CHEMICAL-MECHANICAL POLISHING PAD WITH TEXTURED PLATEN ADHESIVE	17/607743	4/30/2020

SCHEDULE I

PATENTS OWNED BY INTERNATIONAL TEST SOLUTIONS, LLC

Patents

Registered Owner	Title	Registration Number	Date Filed
International Test Solutions, LLC	APPARATUSES, DEVICE, AND METHODS FOR CLEANING TESTER INTERFACE CONTACT ELEMENTS AND SUPPORT HARDWARE	8371316	12/3/2009
International Test Solutions, LLC	APPARATUSES, DEVICE, AND METHODS FOR CLEANING TESTER INTERFACE CONTACT ELEMENTS AND SUPPORT HARDWARE	8790466	11/4/2011
International Test Solutions, LLC	APPARATUSES, DEVICE, AND METHODS FOR CLEANING TESTER INTERFACE CONTACT ELEMENTS AND SUPPORT HARDWARE	8801869	11/4/2011
International Test Solutions, LLC	WAFER MANUFACTURING CLEANING APPARATUS, PROCESS AND METHOD OF USE	9595456	8/20/2013
International Test Solutions, LLC	SEMICONDUCTOR WIRE BONDING MACHINE CLEANING DEVICE AND METHOD	9825000	4/24/2017
International Test Solutions, LLC	WORKING SURFACE CLEANING SYSTEM AND METHOD	9833818	8/7/2013
International Test Solutions, LLC	WAFER MANUFACTURING CLEANING APPARATUS, PROCESS AND METHOD OF USE	10002776	12/21/2012
International Test Solutions, LLC	WAFER MANUFACTURING CLEANING APPARATUS, PROCESS AND METHOD OF USE	10109504	1/30/2017
International Test Solutions, LLC	APPARATUSES, DEVICE, AND METHODS FOR CLEANING TESTER INTERFACE CONTACT ELEMENTS AND SUPPORT HARDWARE	10195648	7/28/2014
International Test Solutions, LLC	WORKING SURFACE CLEANING SYSTEM AND METHOD	10239099	11/20/2017
International Test Solutions, LLC	SEMICONDUCTOR WIRE BONDING MACHINE CLEANING DEVICE AND METHOD	10361169	10/2/2017
International Test Solutions, LLC	WORKING SURFACE CLEANING SYSTEM AND METHOD	10406568	3/1/2019

Registered Owner	Title	Registration Number	Date Filed
International Test Solutions, LLC	NOVEL MATERIAL AND HARDWARE TO AUTOMATICALLY CLEAN FLEXIBLE EXETRONIC WEB ROLLS	10717618	2/22/2019
International Test Solutions, LLC	WAFER MANUFACTURING CLEANING APPARATUS, PROCESS AND METHOD OF USE	10741420	9/20/2018
International Test Solutions, LLC	PICK AND PLACE MACHINE CLEANING SYSTEM AND METHOD	10792713	7/2/2019
International Test Solutions, LLC	NOVEL MATERIAL AND HARDWARE TO AUTOMATICALLY CLEAN FLEXIBLE EXETRONIC WEB ROLLS	10843885	2/22/2019
International Test Solutions, LLC	WAFER MANUFACTURING CLEANING APPARATUS, PROCESS AND METHOD OF USE	10896828	6/8/2020
International Test Solutions, LLC	DEVICE AND METHOD FOR THERMAL STABILIZATION OF PROBE ELEMENTS USING A HEAT CONDUCTING WAFER	11035898	5/11/2020
International Test Solutions, LLC	NOVEL MATERIAL AND HARDWARE TO AUTOMATICALLY CLEAN FLEXIBLE EXETRONIC WEB ROLLS	11155428	2/22/2019
International Test Solutions, LLC	SYSTEM AND METHOD FOR CLEANING CONTACT ELEMENTS AND SUPPORT HARDWARE USING FUNCTIONALIZED SURFACE MICROFEATURES	11211242	11/14/2019
International Test Solutions, LLC	SYSTEM AND METHOD FOR CLEANING WIRE BONDING MACHINES USING FUNCTIONALIZED SURFACE MICROFEATURES	11318550	4/22/2020

Patent Applications

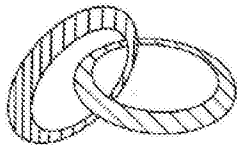
Registered Owner	Title	Application Number	Date Filed
International Test Solutions, LLC	NOVEL MATERIAL AND HARDWARE TO AUTOMATICALLY CLEAN FLEXIBLE EXETRONIC WEB ROLLS	16/283613	2/22/2019

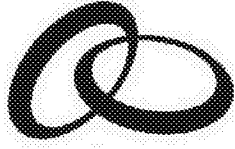
Registered Owner	Title	Application Number	Date Filed
International Test Solutions, LLC	WORKING SURFACE CLEANING SYSTEM AND METHOD	16/438162	6/11/2019
International Test Solutions, LLC	PICK AND PLACE MACHINE CLEANING SYSTEM AND METHOD	16/460877	7/2/2019
International Test Solutions, LLC	PICK AND PLACE MACHINE CLEANING SYSTEM AND METHOD	16/460918	7/2/2019
International Test Solutions, LLC	PICK AND PLACE MACHINE CLEANING SYSTEM AND METHOD	16/460929	7/2/2019
International Test Solutions, LLC	PICK AND PLACE MACHINE CLEANING SYSTEM AND METHOD	16/794068	2/18/2020
International Test Solutions, LLC	SYSTEM AND METHOD FOR CLEANING CONTACT ELEMENTS AND SUPPORT HARDWARE USING FUNCTIONALIZED SURFACE MICROFEATURES	17/540943	12/2/2021

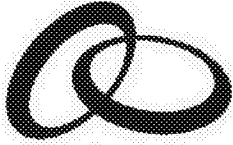
SCHEDULE II

TRADEMARK/TRADE NAMES OWNED BY ENTEGRIS, INC.

Trademarks

Registered Owner	Mark	Registration Number	Registration Date
Entegris, Inc.	FLUOROWARE	840431	12/12/1967
Entegris, Inc.	GALTEK	1203551	8/3/1982
Entegris, Inc.	STAT-PRO	1295784	9/18/1984
Entegris, Inc.	NICOMP	1340333	6/11/1985
Entegris, Inc.	WAFERGARD	1359089	9/10/1985
Entegris, Inc.	PUREBOND	1375854	12/17/1985
Entegris, Inc.	FLUOROPURE	1400346	7/8/1986
Entegris, Inc.	NOWPAK	1524520	2/14/1989
Entegris, Inc.	SOLOPAK	1760694	3/23/1993
Entegris, Inc.	FLUOROLINE	1777873	6/22/1993
Entegris, Inc.	ACCUSIZER	1782043	7/13/1993
Entegris, Inc.	SABRE	1813322	12/28/1993
Entegris, Inc.	INTEGRA	1848496	8/9/1994
Entegris, Inc.	CRYSTALPAK	1962434	3/12/1996
Entegris, Inc.	FLUOROGARD	2062726	5/20/1997
Entegris, Inc.	FLARELOCK	2089727	8/19/1997
Entegris, Inc.	SDS	2115190	11/25/1997
Entegris, Inc.	SDS	2205571	11/24/1998
Entegris, Inc.	INTELLIGEN	2246592	5/18/1999
Entegris, Inc.	IMPACT	2246593	5/18/1999
Entegris, Inc.	HYQ	2602711	7/30/2002
Entegris, Inc.	SAGE	2625475	9/24/2002
Entegris, Inc.	VAC	2628712	10/1/2002
Entegris, Inc.		2632533	10/8/2002
Entegris, Inc.	RGEN	2652151	11/19/2002
Entegris, Inc.	ENTEGRIS	2663647	12/17/2002
Entegris, Inc.	INTERCEPT	2704811	4/8/2003
Entegris, Inc.	IMPACT	2736648	7/15/2003
Entegris, Inc.	ENCOMPASS	2754326	8/19/2003
Entegris, Inc.	PHASOR	2757580	8/26/2003
Entegris, Inc.	AERONEX	2781845	11/11/2003
Entegris, Inc.	CHEMLOCK	2796097	12/16/2003
Entegris, Inc.	SMARTPROBE	2799461	12/23/2003
Entegris, Inc.	XCDA	2810790	2/3/2004
Entegris, Inc.	DYMEENSION	2821739	3/9/2004

Registered Owner	Mark	Registration Number	Registration Date
Entegris, Inc.	SMARTSTACK	2823646	3/16/2004
Entegris, Inc.	PROCESSGARD	2826559	3/23/2004
Entegris, Inc.	PROTEGO	2849302	6/1/2004
Entegris, Inc.	RINSEGARD	2855931	6/22/2004
Entegris, Inc.	NOWTRAK	2861581	7/6/2004
Entegris, Inc.	ACCUTEK	2916452	1/4/2005
Entegris, Inc.	PLANARCORE	2974322	7/19/2005
Entegris, Inc.	CONNECTOLOGY	2987954	8/23/2005
Entegris, Inc.	ATMI	3038639	1/10/2006
Entegris, Inc.	PLANARCAP	3104989	6/13/2006
Entegris, Inc.	PUREBOND	3109383	6/27/2006
Entegris, Inc.	PROE-VAP	3121437	7/25/2006
Entegris, Inc.	CHACOLLET	3133696	8/22/2006
Entegris, Inc.	PHASOR	3209059	2/13/2007
Entegris, Inc.	VAC	3311534	10/16/2007
Entegris, Inc.	SENTRY	3381763	2/12/2008
Entegris, Inc.	SAFE DELIVERY SOURCE	3445321	6/10/2008
Entegris, Inc.	REGENSI	3542410	12/9/2008
Entegris, Inc.	LUMINOUSGARD	3633626	6/9/2009
Entegris, Inc.	PLANARCLEAN	3963105	5/17/2011
Entegris, Inc.	CERTIMASS	3989653	7/5/2011
Entegris, Inc.	SILVERSET	4038850	10/11/2011
Entegris, Inc.	ENTEGRIS	4055166	11/15/2011
Entegris, Inc.		4055167	11/15/2011
Entegris, Inc.	BRIGHTPAK	4136601	5/1/2012
Entegris, Inc.	LIQUIDLENS	4152464	6/5/2012
Entegris, Inc.	PRIMELOCK	4154799	6/5/2012
Entegris, Inc.	PDS	4869220	12/15/2015
Entegris, Inc.	MEGAVAP	4885232	1/12/2016
Entegris, Inc.	JOPPA27	5042847	9/13/2016
Entegris, Inc.	INVUE	5064942	10/18/2016
Entegris, Inc.	FLOWPLANE	5172118	3/28/2017
Entegris, Inc.	PURASOL	5546712	8/21/2018
Entegris, Inc.		5746002	5/7/2019

Registered Owner	Mark	Registration Number	Registration Date
Entegris, Inc.		5771250	6/4/2019
Entegris, Inc.	AZORA	5777206	6/11/2019
Entegris, Inc.	TRINZIK	5807440	7/16/2019
Entegris, Inc.	PLANAREX	5822636	7/30/2019
Entegris, Inc.	TORRENTO	6605349	1/4/2022
Entegris, Inc.	GATEKEEPER	6607305	1/4/2022
Entegris, Inc.	TITANKLEAN	6608354	1/4/2022

Trademark Applications

Registered Owner	Mark	Application Number	Date Filed
Entegris, Inc.	ASTERA	97/008293	9/2/2021
Entegris, Inc.	ARAMUS	97/058673	10/4/2021

SCHEDULE II

TRADEMARK/TRADE NAMES OWNED BY ENTEGRIS GP, INC.

Trademarks

Registered Owner	Mark	Registration Number	Registration Date
Entegris GP, Inc.	MEGA TORR	1773451	5/25/1993
Entegris GP, Inc.	MONO TORR	1809014	12/7/1993
Entegris GP, Inc.	MICRO TORR	1960469	3/5/1996
Entegris GP, Inc.		2032173	1/21/1997
Entegris GP, Inc.	MICRO TORR	2049741	4/1/1997
Entegris GP, Inc.	MICROTORR	2076171	7/1/1997
Entegris GP, Inc.	MEGATORR	2076185	7/1/1997
Entegris GP, Inc.	MONO TORR	2079823	7/15/1997
Entegris GP, Inc.	MONOTORR	2101892	9/30/1997
Entegris GP, Inc.	FACILI TORR	2592589	7/9/2002

Trademark Applications

None.

SCHEDULE II

TRADEMARK/TRADE NAMES OWNED BY POCO GRAPHITE, INC.

Trademarks

Registered Owner	Mark	Registration Number	Registration Date
Poco Graphite, Inc.	GLASSMATE	1458022	9/22/1987
Poco Graphite, Inc.	SUPERSIC	1762413	4/6/1993
Poco Graphite, Inc.	POCO	2177776	8/4/1998
Poco Graphite, Inc.	POCO	2177811	8/4/1998
Poco Graphite, Inc.	POCO	2179828	8/11/1998
Poco Graphite, Inc.	POCOFOAM	2553822	3/26/2002
Poco Graphite, Inc.	EDM-1	3133505	8/22/2006
Poco Graphite, Inc.	EDM-3	3133507	8/22/2006
Poco Graphite, Inc.	EDM-200	3133508	8/22/2006
Poco Graphite, Inc.	EDM-C200	3133509	8/22/2006
Poco Graphite, Inc.	EDM-2	3133510	8/22/2006
Poco Graphite, Inc.	EDM-4	3136278	8/29/2006
Poco Graphite, Inc.	EDM-AF5	3136279	8/29/2006
Poco Graphite, Inc.	EDM-C3	3136280	8/29/2006
Poco Graphite, Inc.	ZEE	3155740	10/17/2006
Poco Graphite, Inc.	FABMATE	4202108	9/4/2012
Poco Graphite, Inc.	GLASSMATE	4464637	1/14/2014

Trademark Applications

None.

SCHEDULE II

TRADEMARK/TRADE NAMES OWNED BY QED TECHNOLOGIES INTERNATIONAL,
INC.

Trademarks

Registered Owner	Mark	Registration Number	Registration Date
QED Technologies International, Inc.	QED TECHNOLOGIES	2777617	10/28/2003
QED Technologies International, Inc.	MRF	2827173	3/30/2004
QED Technologies International, Inc.	Q-FLEX	4270737	1/8/2013
QED Technologies International, Inc.	QED OPTICS	4303897	3/19/2013

Trademark Applications

None.

SCHEDULE II

TRADEMARK/TRADE NAMES OWNED BY CMC MATERIALS, INC.

Trademarks

Registered Owner	Mark	Registration Number	Registration Date
CMC Materials, Inc.	SEMI-SPERSE	1704025	7/28/1992
CMC Materials, Inc.	GIGABIT	1705722	8/4/1992
CMC Materials, Inc.	CLEANROOM	1851237	8/30/1994
CMC Materials, Inc.	TERABIT	1870262	12/27/1994
CMC Materials, Inc.	ULTRA-ETCH	1907795	7/25/1995
CMC Materials, Inc.	SEMI-SPERSE	1917115	9/5/1995
CMC Materials, Inc.	SEALWELD	2142260	3/10/1998
CMC Materials, Inc.	X-PAND	2243649	5/4/1999
CMC Materials, Inc.	EPIC	2363181	6/27/2000
CMC Materials, Inc.	ICUE	2517587	12/11/2001
CMC Materials, Inc.	LUSTRA	2632288	10/8/2002
CMC Materials, Inc.	TURBOFLO	2971771	7/19/2005
CMC Materials, Inc.	HIPR	2994247	9/13/2005
CMC Materials, Inc.	SILECT	3103184	6/13/2006
CMC Materials, Inc.	NANO-STRIP	3306579	10/9/2007
CMC Materials, Inc.	WIN	3456932	7/1/2008
CMC Materials, Inc.	TRANSELE	3623364	5/19/2009
CMC Materials, Inc.	NEXPLANAR	3702810	10/27/2009
CMC Materials, Inc.	NANO-STRIP	3949164	4/19/2011
CMC Materials, Inc.	VIPER	4053560	11/8/2011
CMC Materials, Inc.	IDIEL	4613239	9/30/2014
CMC Materials, Inc.	MEDEA	5354755	12/12/2017
CMC Materials, Inc.	VALVE CLEANER PLUS	5498636	6/19/2018
CMC Materials, Inc.	FLOW WOLF	5514442	7/10/2018
CMC Materials, Inc.	CHAMELEON SEAL	5514443	7/10/2018
CMC Materials, Inc.	ACTIV-8	5520231	7/17/2018
CMC Materials, Inc.	UNI-SEAL	5633402	12/18/2018
CMC Materials, Inc.	TOTAL-LUBE #911	5638495	12/25/2018
CMC Materials, Inc.	AUSCILLATER	5788180	6/25/2019
CMC Materials, Inc.	GRIZZLY SEAL	5807265	7/16/2019
CMC Materials, Inc.	SUPERGUN	5938368	12/17/2019
CMC Materials, Inc.	VALVEPRO	5938369	12/17/2019
CMC Materials, Inc.	EQUA-LUBE EIGHTY	5944473	12/24/2019
CMC Materials, Inc.	SEALVALVE	5969362	1/21/2020

Registered Owner	Mark	Registration Number	Registration Date
CMC Materials, Inc.	SEALVALVE	6010732	3/17/2020
CMC Materials, Inc.	SEALWELD	6085978	6/23/2020
CMC Materials, Inc.	CMC MATERIALS	6667318	3/8/2022
CMC Materials, Inc.	CMC MATERIALS & Design	6667339	3/8/2022

Trademark Applications

None.

SCHEDULE II

TRADEMARK/TRADE NAMES OWNED BY INTERNATIONAL TEST SOLUTIONS, LLC

Trademarks

Registered Owner	Mark	Registration Number	Registration Date
International Test Solutions, LLC	PROBE CLEAN	2599807	7/23/2002
International Test Solutions, LLC	PROBE SCRUB	2599808	7/23/2002
International Test Solutions, LLC	PROBE POLISH	2610970	8/20/2002
International Test Solutions, LLC	PROBE FORM	2642325	10/29/2002
International Test Solutions, LLC	INTERNATIONAL TEST SOLUTIONS & Design	2651534	11/19/2002
International Test Solutions, LLC	PROBE LAP	3251735	6/12/2007
International Test Solutions, LLC	PROBE POLISH	3660513	7/28/2009
International Test Solutions, LLC	PROBE SCCRUB	3660514	7/28/2009
International Test Solutions, LLC	CCW	3725048	12/15/2009
International Test Solutions, LLC	SCD	3725049	12/15/2009
International Test Solutions, LLC	TCC	3820328	7/20/2010
International Test Solutions, LLC	ETCH CLEAN	4479239	2/4/2014
International Test Solutions, LLC	STAGE CLEAN	4517513	4/22/2014
International Test Solutions, LLC	PROBE REFRESH	5947138	12/31/2019
International Test Solutions, LLC	PROBE VERTICAL	5947139	12/31/2019

Trademark Applications

None.

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