# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT7418318

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| **SUBMISSION TYPE:** | NEW ASSIGNMENT |
| **NATURE OF CONVEYANCE:** | RELEASE OF SECURITY INTEREST |

**CONVEYING PARTY DATA**

| Name | Execution Date |
|---|---|
| JPMORGAN CHASE BANK, N.A. | 07/06/2022 |

**RECEIVING PARTY DATA**

| | |
|---|---|
| **Name:** | CABOT MICROELECTRONICS CORPORATION |
| **Street Address:** | 870 N. COMMONS DR. |
| **City:** | AURORA |
| **State/Country:** | ILLINOIS |
| **Postal Code:** | 60504 |
| **Name:** | QED TECHNOLOGIES INTERNATIONAL, INC. |
| **Street Address:** | 1040 UNIVERSITY AVENUE |
| **City:** | ROCHESTER |
| **State/Country:** | NEW YORK |
| **Postal Code:** | 14607 |
| **Name:** | FLOWCHEM LLC |
| **Street Address:** | 43253 OLD HOUSTON HIGHWAY |
| **City:** | WALLER |
| **State/Country:** | TEXAS |
| **Postal Code:** | 77484 |
| **Name:** | KMG ELECTRONIC CHEMICALS, INC. |
| **Street Address:** | 300 THROCKMORTON STREET |
| **City:** | FORT WORTH |
| **State/Country:** | TEXAS |
| **Postal Code:** | 76102 |
| **Name:** | KMG-BERNUTH, INC. |
| **Street Address:** | 300 THROCKMORTON STREET |
| **City:** | FORT WORTH |
| **State/Country:** | TEXAS |
| **Postal Code:** | 76102 |
| **Name:** | MPOWER SPECIALTY CHEMICALS LLC |
| **Street Address:** | 43253 OLD HOUSTON HIGHWAY |
| **City:** | WALLER |

| | |
|---|---|
| **State/Country:** | TEXAS |
| **Postal Code:** | 77484 |
| **Name:** | SEALWELD (USA), INC. |
| **Street Address:** | 300 THROCKMORTON STREET |
| **City:** | FORT WORTH |
| **State/Country:** | TEXAS |
| **Postal Code:** | 76102 |
| **Name:** | INTERNATIONAL TEST SOLUTIONS, LLC |
| **Street Address:** | 870 N. COMMONS DR. |
| **City:** | AURORA |
| **State/Country:** | ILLINOIS |
| **Postal Code:** | 60504 |
| **Name:** | CMC MATERIALS, INC. |
| **Street Address:** | 870 N. COMMONS DR. |
| **City:** | AURORA |
| **State/Country:** | ILLINOIS |
| **Postal Code:** | 60504 |

**PROPERTY NUMBERS Total: 410**

| Property Type | Number |
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| **Patent Number:** | 10029345 |
| **Patent Number:** | 10066126 |
| **Patent Number:** | 6293848 |
| **Patent Number:** | 10100272 |
| **Patent Number:** | 6316365 |
| **Patent Number:** | 6319096 |
| **Patent Number:** | 6347978 |
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| Property Type | Number |
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| **Patent Number:** | 8486169 |
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| **Application Number:** | 14562589 |
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| **Application Number:** | 15564605 |
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| **Application Number:** | 15649378 |
| **Application Number:** | 15684470 |
| **Application Number:** | 15706192 |
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| **Application Number:** | 16000062 |
| **Application Number:** | 16018281 |
| **Application Number:** | 16131180 |
| **PCT Number:** | US2016053283 |
| **PCT Number:** | US2016058042 |
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| **Application Number:** | 09624750 |
| **Application Number:** | 10825718 |
| **Application Number:** | 13961127 |
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| Application Number: | 12630714 |
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| **Application Number:** | 16729905 |
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| **Application Number:** | 16797438 |
| **Application Number:** | 16271508 |
| **Application Number:** | 16236962 |
| **Application Number:** | 14577453 |

**CORRESPONDENCE DATA**

**Fax Number:** (800)914-4240

***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:** 800-713-0755
**Email:** Michael.Violet@wolterskluwer.com, ECarrera@cahill.com
**Correspondent Name:** CT CORPORATION
**Address Line 1:** 4400 EASTON COMMONS WAY
**Address Line 2:** SUITE 125
**Address Line 4:** COLUMBUS, OHIO 43219

| | |
|---|---|
| **NAME OF SUBMITTER:** | ELAINE CARRERA |
| **SIGNATURE:** | /Elaine Carrera/ |
| **DATE SIGNED:** | 07/06/2022 |

**Total Attachments: 42**
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Form PTO-1595 (Rev. 6-18)
OMB No. 0651-0027 (exp. 06/30/2021)

U.S. DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

# RECORDATION FORM COVER SHEET
# PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

**1. Name of conveying party(ies)**
JPMORGAN CHASE BANK, N.A.

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

**2. Name and address of receiving party(ies)**
Name: CABOT MICROELECTRONICS CORPORATION
Internal Address:
Street Address: 870 N. Commons Dr.
City: Aurora
State: IL
Country: USA Zip: 60504

Additional name(s) & address(es) attached? ☒ Yes ☐ No

**3. Nature of conveyance/Execution Date(s):**
Execution Date(s): July 6, 2022

☐ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Joint Research Agreement
☐ Government Interest Assignment
☐ Executive Order 9424, Confirmatory License
☒ Other: Release of Security Interest

**4. Application or patent number(s):** ☐ This document serves as an Oath/Declaration (37 CFR 1.63).

A. Patent Application No.(s)
See Schedule I

B. Patent No.(s)
See Schedule I

Additional numbers attached? ☒ Yes ☐ No

**5. Name and address to whom correspondence concerning document should be mailed:**
Name: Elaine Carrera, Senior Paralegal
Internal Address:
Street Address: c/o Cahill Gordon & Reindel LLP, 32 Old Slip
City: New York
State: NY Zip: 10005
Phone Number: (212) 701-3365
Docket Number:
Email Address: ecarrera@cahill.com

**6. Total number of applications and patents involved:** 410

**7. Total fee** (37 CFR 1.21(h) & 3.41) $

☐ Authorized to be charged to deposit account
☐ Enclosed
☐ None required (government interest not affecting title)

**8. Payment Information**

Deposit Account Number
Authorized User Name

**9. Signature:** Elaine Carrera — July 6, 2022
Signature — Date

Elaine Carrera
Name of Person Signing

Total number of pages including cover sheet, attachments, and documents: 42

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

Addendum to Cover Page of Patents Form Cover Sheet

2. Name and address of receiving party(ies)

QED TECHNOLOGIES INTERNATIONAL, INC.
1040 University Avenue
Rochester, NY 14607

FLOWCHEM LLC
43253 Old Houston Highway
Waller, Texas 77484

KMG ELECTRONIC CHEMICALS, INC.
300 Throckmorton Street
Fort Worth, Texas 76102

KMG-BERNUTH, INC.
300 Throckmorton Street
Fort Worth, Texas 76102

MPOWER SPECIALTY CHEMICALS LLC
43253 Old Houston Highway
Waller, Texas 77484

SEALWELD (USA), INC.
300 Throckmorton Street
Fort Worth, Texas 76102

INTERNATIONAL TEST SOLUTIONS, LLC
870 N. Commons Dr.
Aurora, IL 60504

CMC MATERIALS, INC.
870 N. Commons Dr.
Aurora, IL 60504

# RELEASE OF SECURITY INTEREST IN INTELLECTUAL PROPERTY

This RELEASE OF SECURITY INTEREST IN INTELLECTUAL PROPERTY (this "Release"), dated as of July 6, 2022 (the "Effective Date"), is made by JPMORGAN CHASE BANK, N.A., in its capacity as Collateral Agent (the "Agent"), in favor of the grantor parties identified on the signature pages hereto (each a "Grantor" and, together, the "Grantors").

WHEREAS, pursuant to that certain Collateral Agreement, dated as of November 15, 2018, by and among the Agent, the Grantors and certain other parties thereto (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, the "Collateral Agreement"), the Grantors granted to the Agent, in its capacity as Collateral Agent a security interest in and to certain collateral;

WHEREAS, pursuant to the Collateral Agreement, CABOT MICROELECTRONICS CORPORATION, QED TECHNOLOGIES INTERNATIONAL, INC., FLOWCHEM LLC, KMG ELECTRONIC CHEMICALS, INC., KMG-BERNUTH, INC., MPOWER SPECIALTY CHEMICALS LLC, and SEALWELD (USA), INC. each executed and delivered a Notice of Grant of Security Interest in Trademarks, dated as of November 15, 2018 (the "2018 Trademark Security Agreement"), for recordal with the United States Patent and Trademark Office;

WHEREAS, the 2018 Trademark Security Agreement was recorded with the United States Patent and Trademark Office on November 16, 2018 at Reel/Frame 6483/0177;

WHEREAS, pursuant to the Collateral Agreement, INTERNATIONAL TEST SOLUTIONS, LLC executed and delivered a Notice of Grant of Security Interest in Trademarks, dated as April 30, 2021 (the "ITS Trademark Security Agreement"), for recordal with the United States Patent and Trademark Office;

WHEREAS, the ITS Trademark Security Agreement was recorded with the United States Patent and Trademark Office on April 30, 2021 at Reel/Frame 7276/0107;

WHEREAS, pursuant to the Collateral Agreement, CMC MATERIALS, INC. executed and delivered a Notice of Grant of Security Interest in Trademarks, dated as July 2, 2021 (the "CMC Trademark Security Agreement" and, together with the 2018 Trademark Security Agreement and the ITS Trademark Security Agreement, the "Trademark Security Agreements"), for recordal with the United States Patent and Trademark Office;

WHEREAS, the CMC Trademark Security Agreement was recorded with the United States Patent and Trademark Office on July 2, 2021 at Reel/Frame 7345/0418;

WHEREAS, pursuant to the Collateral Agreement, CABOT MICROELECTRONICS CORPORATION, QED TECHNOLOGIES INTERNATIONAL, INC., FLOWCHEM LLC, KMG ELECTRONIC CHEMICALS, INC., and MPOWER SPECIALTY CHEMICALS LLC each executed and delivered a Notice of Grant of Security Interest in Patents, dated as of November 15, 2018 (the "2018 Patent Security Agreement"), for recordal with the United States Patent and Trademark Office;

WHEREAS, the 2018 Patent Security Agreement was recorded with the United States Patent and Trademark Office on November 16, 2018 at Reel/Frame 047588/0263;

WHEREAS, pursuant to the Collateral Agreement, INTERNATIONAL TEST SOLUTIONS, LLC executed and delivered a Notice of Grant of Security Interest in Patents, dated as April 30, 2021 (the "ITS Patent Security Agreement"), for recordal with the United States Patent and Trademark Office;

WHEREAS, the ITS Patent Security Agreement was recorded with the United States Patent and Trademark Office on April 30, 2021 at Reel/Frame 056104/0979;

WHEREAS, pursuant to the Collateral Agreement, CMC MATERIALS, INC. executed and delivered a Notice of Grant of Security Interest in Patents, dated as July 2, 2021 (the "CMC Patent Security Agreement" and, together with the 2018 Patent Security Agreement and the ITS Patent Security Agreement, the "Patent Security Agreements"), for recordal with the United States Patent and Trademark Office;

WHEREAS, the CMC Patent Security Agreement was recorded with the United States Patent and Trademark Office on July 2, 2021 at Reel/Frame 056752/0645;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Agent hereby agrees as follows:

1. Defined Terms. All capitalized terms used, but not otherwise defined herein, shall have the respective meanings ascribed in or otherwise referenced in the Collateral Agreement, the Trademark Security Agreements or the Patent Security Agreements, as applicable.

2. Release. The Agent, without representation or warranty of any kind, hereby releases, fully discharges, terminates and cancels all of its continuing security interest in and to the IP Collateral, including the patents and patent applications set forth on Schedule I attached hereto and the trademark registrations and applications set forth on Schedule II attached hereto, in each case arising under the Collateral Agreement, the Trademark Security Agreements and the Patent Security Agreements, as applicable. If and to the extent that the Agent has acquired any right, title or interest in and to the IP Collateral under the Collateral Agreement, Trademark Security Agreements or the Patent Security Agreements, the Agent, without representation or warranty of any kind, hereby re-transfers, re-conveys and re-assigns such right, title or interest to the applicable Grantors.

3. Termination. The Agent, without representation or warranty of any kind, terminates and cancels the Trademark Security Agreements and the Patent Security Agreements.

4. Further Assurances. The Agent agrees to take all further actions, and provide to the Grantors and their successors, assigns or other legal representatives, all such cooperation and assistance (including, without limitation, the execution and delivery of any and all documents or other instruments), reasonably requested by the Grantors, at the Grantors' sole cost and expense, to more fully and effectively effectuate the purposes of this Release.

5. Governing Law. This Release shall be governed exclusively under the laws of the State of New York, without regard to conflicts of law or choice of law principles.

6. Counterparts. This Release may be executed in any number of counterparts, each of which shall be an original, and all of which, when taken together, shall constitute one agreement. The words "execution," "signed," "signature," "delivery," and words of like import in or relating to this Release and/or any document to be signed in connection with this Release and the transactions contemplated hereby shall be deemed to include Electronic Signatures (as defined below), deliveries or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature, physical delivery thereof or the use of a paper-based recordkeeping system, as the case

may be. "Electronic Signatures" means any electronic symbol or process attached to, or associated with, any contract or other record and adopted by a person with the intent to sign, authenticate or accept such contract or record.

[Signature Pages Follow]

IN WITNESS WHEREOF, the Agent has caused this Release to be executed by its duly authorized representative as of the Effective Date:

**JPMORGAN CHASE BANK, N.A. acting in its capacity as Collateral Agent**

By:_____
Name: Eleftherios Karsos
Title: Authorized Officer

**GRANTORS:**
CABOT MICROELECTRONICS CORPORATION
QED TECHNOLOGIES INTERNATIONAL, INC.
FLOWCHEM LLC
KMG ELECTRONIC CHEMICALS, INC.
KMG-BERNUTH, INC.
MPOWER SPECIALTY CHEMICALS LLC
SEALWELD (USA), INC.
INTERNATIONAL TEST SOLUTIONS, LLC
CMC MATERIALS, INC.

## SCHEDULE I

**Release of Notice of Grant of Security Interest in Patents recorded November 16, 2018 at Reel/Frame 047588/0263**

**Patents**

**UNITED STATES PATENTS:**

U.S. Patent Registrations:

| | OWNER | REGISTRATION NUMBER | DESCRIPTION |
|---|---|---|---|
| 1. | CABOT MICROELECTRONICS CORPORATION | 10,029,345 | METHODS AND COMPOSITIONS FOR PROCESSING DIELECTRIC SUBSTRATE |
| 2. | CABOT MICROELECTRONICS CORPORATION | 10,066,126 | TUNGSTEN PROCESSING SLURRY WITH CATALYST |
| 3. | CABOT MICROELECTRONICS CORPORATION | 6,293,848 | COMPOSITION AND METHOD FOR PLANARIZING SURFACES |
| 4. | CABOT MICROELECTRONICS CORPORATION | 10,100,272 | CLEANING COMPOSITION FOLLOWING CMP AND METHODS RELATED THERETO |
| 5. | CABOT MICROELECTRONICS CORPORATION | 6,316,365 | CHEMICAL-MECHANICAL POLISHING METHOD |
| 6. | CABOT MICROELECTRONICS CORPORATION | 6,319,096 | COMPOSITION AND METHOD FOR PLANARIZING SURFACES |
| 7. | CABOT MICROELECTRONICS CORPORATION | 6,347,978 | COMPOSITION AND METHOD FOR POLISHING RIGID DISKS |
| 8. | CABOT MICROELECTRONICS CORPORATION | 6,348,076 | SLURRY FOR MECHANICAL POLISHING (CMP) OF METALS AND USE THEREOF |
| 9. | CABOT MICROELECTRONICS CORPORATION | 6,350,393 | USE OF CSOH IN A DIELECTRIC CMP SLURRY |
| 10. | CABOT MICROELECTRONICS CORPORATION | 6,375,693 | CHEMICAL-MECHANICAL PLANARIZATION OF BARRIERS OR LINERS FOR COPPER METALLURGY |
| 11. | CABOT MICROELECTRONICS CORPORATION | 6,383,065 | CATALYTIC REACTIVE PAD FOR METAL CMP |
| 12. | CABOT MICROELECTRONICS CORPORATION | 6,395,693 | CLEANING SOLUTION FOR SEMICONDUCTOR SURFACES FOLLOWING CHEMICAL-MECHANICAL POLISHING |
| 13. | CABOT MICROELECTRONICS CORPORATION | 6,409,781 | POLISHING SLURRIES FOR COPPER AND ASSOCIATED MATERIALS |

| | OWNER | REGISTRATION NUMBER | DESCRIPTION |
|---|---|---|---|
| 14. | CABOT MICROELECTRONICS CORPORATION | 6,461,227 | METHOD OF POLISHING A MEMORY OR RIGID DISK WITH AN AMMONIA AND/OR HALIDE CONTAINING COMPOSITION |
| 15. | CABOT MICROELECTRONICS CORPORATION | 6,468,137 | METHOD FOR POLISHING A MEMORY OR RIGID DISK WITH AN OXIDIZED HALIDE-CONTAINING POLISHING SYSTEM |
| 16. | CABOT MICROELECTRONICS CORPORATION | 6,471,884 | METHOD FOR POLISHING A MEMORY OR RIGID DISK WITH AN AMINO ACID-CONTAINING COMPOSITION |
| 17. | CABOT MICROELECTRONICS CORPORATION | 6,527,622 | CMP METHOD FOR NOBLE METALS |
| 18. | CABOT MICROELECTRONICS CORPORATION | 6,527,817 | COMPOSITION AND METHOD FOR PLANARIZING SURFACES |
| 19. | CABOT MICROELECTRONICS CORPORATION | 6,527,819 | POLISHING SLURRIES FOR COPPER AND ASSOCIATED MATERIALS |
| 20. | CABOT MICROELECTRONICS CORPORATION | 6,541,434 | CLEANING SOLUTION FOR SEMICONDUCTOR SURFACES FOLLOWING CHEMICAL-MECHANICAL POLISHING |
| 21. | CABOT MICROELECTRONICS CORPORATION | 6,569,350 (Expired) | CHEMICAL MECHANICAL POLISHING SLURRY USEFUL FOR COPPER SUBSTRATES |
| 22. | CABOT MICROELECTRONICS CORPORATION | 6,582,623 | CMP COMPOSITION CONTAINING SILANE MODIFIED ABRASIVE PARTICLES |
| 23. | CABOT MICROELECTRONICS CORPORATION | 6,589,100 | RARE EARTH SALT/OXIDIZER-BASED CMP METHOD |
| 24. | CABOT MICROELECTRONICS CORPORATION | 6,592,776 | POLISHING COMPOSITION FOR METAL CMP |
| 25. | CABOT MICROELECTRONICS CORPORATION | 6,623,331 | POLISHING DISK WITH END-POINT DETECTION PORT |
| 26. | CABOT MICROELECTRONICS CORPORATION | 6,632,377 | CHEMICAL-MECHANICAL PLANARIZATION OF METALLURGY |
| 27. | CABOT MICROELECTRONICS CORPORATION | 6,641,632 | POLISHING COMPOSITIONS AND USE THEREOF |
| 28. | CABOT MICROELECTRONICS CORPORATION | 6,646,348 | SILANE CONTAINING POLISHING COMPOSITION FOR CMP |
| 29. | CABOT MICROELECTRONICS CORPORATION | 6,682,575 | METHANOL-CONTAINING SILICA-BASED CMP COMPOSITIONS |

| | OWNER | REGISTRATION NUMBER | DESCRIPTION |
|---|---|---|---|
| 30. | CABOT MICROELECTRONICS CORPORATION | 6,705,926 | BORON-CONTAINING POLISHING SYSTEM AND METHOD |
| 31. | CABOT MICROELECTRONICS CORPORATION | 6,767,476 (Expired) | POLISHING COMPOSITION FOR METAL CMP |
| 32. | CABOT MICROELECTRONICS CORPORATION | 6,776,810 | ANIONIC ABRASIVE PARTICLES TREATED WITH POSITIVELY CHARGED POLYELECTROLYTES FOR CMP |
| 33. | CABOT MICROELECTRONICS CORPORATION | 6,811,474 | POLISHING COMPOSITION CONTAINING CONDUCTING POLYMER |
| 34. | CABOT MICROELECTRONICS CORPORATION | 6,812,193 | SLURRY FOR MECHANICAL POLISHING (CMP) OF METALS AND USE THEREOF |
| 35. | CABOT MICROELECTRONICS CORPORATION | 6,821,897 | METHOD FOR COPPER CMP USING POLYMERIC COMPLEXING AGENTS |
| 36. | CABOT MICROELECTRONICS CORPORATION | 6,830,503 | CATALYST/OXIDIZER-BASED CMP SYSTEM FOR ORGANIC POLYMER FILMS |
| 37. | CABOT MICROELECTRONICS CORPORATION | 6,840,843 | METHOD FOR MANUFACTURING A POLISHING PAD HAVING A COMPRESSED TRANSLUCENT REGION |
| 38. | CABOT MICROELECTRONICS CORPORATION | 6,840,971 | CHEMICAL MECHANICAL POLISHING SYSTEMS AND METHODS FOR THEIR USE |
| 39. | CABOT MICROELECTRONICS CORPORATION | 6,852,632 | METHOD OF POLISHING A MULTI-LAYER SUBSTRATE |
| 40. | CABOT MICROELECTRONICS CORPORATION | 6,855,266 | POLISHING SYSTEM WITH STOPPING COMPOUND AND METHOD OF ITS USE |
| 41. | CABOT MICROELECTRONICS CORPORATION | 6,867,140 | METHOD OF POLISHING A MULTI-LAYER SUBSTRATE |
| 42. | CABOT MICROELECTRONICS CORPORATION | 6,872,328 | METHOD OF POLISHING OR PLANARIZING A SUBSTRATE |
| 43. | CABOT MICROELECTRONICS CORPORATION | 6,884,156 | MULTI-LAYER POLISHING PAD MATERIAL FOR CMP |
| 44. | CABOT MICROELECTRONICS CORPORATION | 6,896,591 | MIXED-ABRASIVE POLISHING COMPOSITION AND METHOD FOR USING THE SAME |
| 45. | CABOT MICROELECTRONICS CORPORATION | 6,896,593 | MICROPOROUS POLISHING PADS |
| 46. | CABOT MICROELECTRONICS CORPORATION | 6,899,598 | MICROPOROUS POLISHING PADS |
| 47. | CABOT MICROELECTRONICS CORPORATION | 6,913,517 | MICROPOROUS POLISHING PADS |

| | OWNER | REGISTRATION NUMBER | DESCRIPTION |
|---|---|---|---|
| 48. | CABOT MICROELECTRONICS CORPORATION | 6,935,931 | MICROPOROUS POLISHING PADS |
| 49. | CABOT MICROELECTRONICS CORPORATION | 6,936,542 | POLISHING SLURRIES FOR COPPER AND ASSOCIATED MATERIALS |
| 50. | CABOT MICROELECTRONICS CORPORATION | 6,936,543 | USE OF NON-IONIC SURFACTANTS TO REDUCE TA AND OXIDE REMOVAL RATE |
| 51. | CABOT MICROELECTRONICS CORPORATION | 6,960,120 | CMP PAD WITH COMPOSITE TRANSPARENT WINDOW |
| 52. | CABOT MICROELECTRONICS CORPORATION | 6,974,777 | CMP COMPOSITIONS FOR LOW-K DIELECTRIC MATERIALS |
| 53. | CABOT MICROELECTRONICS CORPORATION | 6,997,777 | ULTRASONIC WELDING METHOD FOR THE MANUFACTURE OF A POLISHING PAD COMPRISING AN<br><br>OPTICALLY TRANSMISSIVE REGION |
| 54. | CABOT MICROELECTRONICS CORPORATION | 6,998,166 | POLISHING PAD WITH ORIENTED PORE STRUCTURE |
| 55. | CABOT MICROELECTRONICS CORPORATION | 7,004,819 | CMP SYSTEMS AND METHODS UTILIZING AMINE-CONTAINING POLYMERS |
| 56. | CABOT MICROELECTRONICS CORPORATION | 7,044,836 | COATED METAL OXIDE PARTICLES FOR CMP |
| 57. | CABOT MICROELECTRONICS CORPORATION | 7,059,936 | LOW SURFACE ENERGY CMP PAD |
| 58. | CABOT MICROELECTRONICS CORPORATION | 7,097,541 | CMP METHOD FOR NOBLE METALS |
| 59. | CABOT MICROELECTRONICS CORPORATION | 7,160,807 | CMP OF NOBLE METALS |
| 60. | CABOT MICROELECTRONICS CORPORATION | 7,161,247 | POLISHING COMPOSITION FOR NOBLE METALS |
| 61. | CABOT MICROELECTRONICS CORPORATION | 7,195,539 | POLISHING PAD WITH RECESSED WINDOW |
| 62. | CABOT MICROELECTRONICS CORPORATION | 7,195,544 | CMP POROUS PAD WITH COMPONENT-FILLED PORES |
| 63. | CABOT MICROELECTRONICS CORPORATION | 7,198,549 | CONTINUOUS CONTOUR POLISHING OF A MULTI-MATERIAL SURFACE |
| 64. | CABOT MICROELECTRONICS CORPORATION | 7,204,742 | POLISHING PAD COMPRISING HYDROPHOBIC REGION AND ENDPOINT DETECTION PORT |

| | OWNER | REGISTRATION NUMBER | DESCRIPTION |
|---|---|---|---|
| 65. | CABOT MICROELECTRONICS CORPORATION | 7,238,618 | SYSTEM FOR THE PREFERENTIAL REMOVAL OF SILICON OXIDE |
| 66. | CABOT MICROELECTRONICS CORPORATION | 7,247,567 | METHOD OF POLISHING A TUNGSTEN-CONTAINING SUBSTRATE |
| 67. | CABOT MICROELECTRONICS CORPORATION | 7,255,810 | POLISHING SYSTEM COMPRISING A HIGHLY BRANCHED POLYMER |
| 68. | CABOT MICROELECTRONICS CORPORATION | 7,265,055 | CMP OF COPPER/RUTHENIUM SUBSTRATES |
| 69. | CABOT MICROELECTRONICS CORPORATION | 7,267,607 | TRANSPARENT MICROPOROUS MATERIALS FOR CMP |
| 70. | CABOT MICROELECTRONICS CORPORATION | 7,288,021 | CHEMICAL-MECHANICAL POLISHING OF METALS IN AN OXIDIZED FORM |
| 71. | CABOT MICROELECTRONICS CORPORATION | 7,294,576 | TUNABLE SELECTIVITY SLURRIES IN CMP APPLICATIONS |
| 72. | CABOT MICROELECTRONICS CORPORATION | 7,306,637 | ANIONIC ABRASIVE PARTICLES TREATED WITH POSITIVELY CHARGED POLYELECTROLYTES FOR CMP |
| 73. | CABOT MICROELECTRONICS CORPORATION | 7,311,856 | POLYMERIC INHIBITORS FOR ENHANCED PLANARIZATION |
| 74. | CABOT MICROELECTRONICS CORPORATION | 7,311,862 | METHOD FOR MANUFACTURING MICROPOROUS CMP MATERIALS HAVING CONTROLLED PORE SIZE |
| 75. | CABOT MICROELECTRONICS CORPORATION | 7,316,603 | COMPOSITIONS AND METHODS FOR TANTALUM CMP |
| 76. | CABOT MICROELECTRONICS CORPORATION | 7,354,530 | CHEMICAL MECHANICAL POLISHING SYSTEMS AND METHODS FOR THEIR USE |
| 77. | CABOT MICROELECTRONICS CORPORATION | 7,368,066 | GOLD CMP COMPOSITION AND METHOD |
| 78. | CABOT MICROELECTRONICS CORPORATION | 7,377,840 | METHODS FOR PRODUCING IN-SITU GROOVES IN CHEMICAL MECHANICAL PLANARIZATION (CMP) PADS, AND NOVEL CMP PAD DESIGNS |
| 79. | CABOT MICROELECTRONICS CORPORATION | 7,381,648 | CHEMICAL MECHANICAL POLISHING SLURRY USEFUL FOR COPPER SUBSTRATES |
| 80. | CABOT MICROELECTRONICS CORPORATION | 7,425,172 | CUSTOMIZED POLISH PADS FOR CHEMICAL MECHANICAL PLANARIZATION |
| 81. | CABOT MICROELECTRONICS CORPORATION | 7,427,567 | POLISHING SLURRIES FOR COPPER AND ASSOCIATED MATERIALS |

| | OWNER | REGISTRATION NUMBER | DESCRIPTION |
|---|---|---|---|
| 82. | CABOT MICROELECTRONICS CORPORATION | 7,435,161 | MULTI-LAYER POLISHING PAD MATERIAL FOR CMP |
| 83. | CABOT MICROELECTRONICS CORPORATION | 7,435,165 | TRANSPARENT MICROPOROUS MATERIALS FOR CMP |
| 84. | CABOT MICROELECTRONICS CORPORATION | 7,442,645 | METHOD OF POLISHING A SILICON-CONTAINING DIELECTRIC |
| 85. | CABOT MICROELECTRONICS CORPORATION | 7,447,298 | DECONTAMINATION AND STERILIZATION SYSTEM USING LARGE AREA X-RAY SOURCE |
| 86. | CABOT MICROELECTRONICS CORPORATION | 7,456,107 | COMPOSITIONS AND METHODS FOR CMP OF LOW-K DIELECTRIC MATERIALS |
| 87. | CABOT MICROELECTRONICS CORPORATION | 7,485,241 | CHEMICAL MECHANICAL POLISHING COMPOSITION AND METHOD FOR USING THE SAME |
| 88. | CABOT MICROELECTRONICS CORPORATION | 7,501,346 | GALLIUM AND CHROMIUM IONS FOR OXIDE RATE ENHANCEMENT |
| 89. | CABOT MICROELECTRONICS CORPORATION | 7,504,044 | POLISHING COMPOSITION AND METHOD FOR HIGH SILICON NITRIDE TO SILICON OXIDE REMOVAL RATE RATIOS |
| 90. | CABOT MICROELECTRONICS CORPORATION | 7,524,347 | CMP COMPOSITION COMPRISING SURFACTANT |
| 91. | CABOT MICROELECTRONICS CORPORATION | 7,531,105 | POLISHING COMPOSITION AND METHOD FOR HIGH SILICON NITRIDE TO SILICON OXIDE REMOVAL RATE RATIOS |
| 92. | CABOT MICROELECTRONICS CORPORATION | 7,563,383 | CMP COMPOSITION WITH A POLYMER ADDITIVE FOR POLISHING NOBLE METALS |
| 93. | CABOT MICROELECTRONICS CORPORATION | 7,582,127 | METHOD OF POLISHING A TUNGSTEN-CONTAINING SUBSTRATE |
| 94. | CABOT MICROELECTRONICS CORPORATION | 7,585,340 | POLISHING COMPOSITION CONTAINING POLYETHER AMINE |
| 95. | CABOT MICROELECTRONICS CORPORATION | 7,677,956 | COMPOSITIONS AND METHODS FOR DIELECTRIC CMP |
| 96. | CABOT MICROELECTRONICS CORPORATION | 7,678,700 | SILICON CARBIDE POLISHING METHOD UTILIZING WATER-SOLUBLE OXIDIZERS |
| 97. | CABOT MICROELECTRONICS CORPORATION | 7,704,122 | CUSTOMIZED POLISH PADS FOR CHEMICAL MECHANICAL PLANARIZATION |
| 98. | CABOT MICROELECTRONICS CORPORATION | 7,704,125 | CUSTOMIZED POLISH PADS FOR CMP AND METHODS OF FABRICATION AND USE THEREOF |

| | OWNER | REGISTRATION NUMBER | DESCRIPTION |
|---|---|---|---|
| 99. | CABOT MICROELECTRONICS CORPORATION | 7,754,098 | CHEMICAL MECHANICAL POLISHING COMPOSITION AND METHOD FOR USING THE SAME |
| 100. | CABOT MICROELECTRONICS CORPORATION | 7,776,230 | CMP SYSTEM UTILIZING HALOGEN ADDUCT |
| 101. | CABOT MICROELECTRONICS CORPORATION | 7,803,203 | COMPOSITIONS AND METHODS FOR CMP OF SEMICONDUCTOR MATERIALS |
| 102. | CABOT MICROELECTRONICS CORPORATION | 7,803,711 | LOW PH BARRIER SLURRY BASED ON TITANIUM DIOXIDE |
| 103. | CABOT MICROELECTRONICS CORPORATION | 7,820,067 | HALIDE ANIONS FOR METAL REMOVAL RATE CONTROL |
| 104. | CABOT MICROELECTRONICS CORPORATION | 7,837,888 | COMPOSITION AND METHOD FOR DAMASCENE CMP |
| 105. | CABOT MICROELECTRONICS CORPORATION | 7,846,842 | POLISHING COMPOSITION AND METHOD FOR HIGH SILICON NITRIDE TO SILICON OXIDE REMOVAL RATE RATIOS |
| 106. | CABOT MICROELECTRONICS CORPORATION | 7,897,061 | COMPOSITIONS AND METHODS FOR CMP OF PHASE CHANGE ALLOYS COMPOSITIONS AND METHODS FOR CMP OF PHASE CHANGE ALLOYS |
| 107. | CABOT MICROELECTRONICS CORPORATION | 7,922,926 | COMPOSITION AND METHOD FOR POLISHING NICKEL-PHOSPHOROUS-COATED ALUMINUM HARD DISKS |
| 108. | CABOT MICROELECTRONICS CORPORATION | 7,955,519 | COMPOSITION AND METHOD FOR PLANARIZING SURFACES |
| 109. | CABOT MICROELECTRONICS CORPORATION | 7,955,520 | COPPER-PASSIVATING CMP COMPOSITIONS AND METHODS |
| 110. | CABOT MICROELECTRONICS CORPORATION | 7,994,057 | POLISHING COMPOSITION AND METHOD UTILIZING ABRASIVE PARTICLES TREATED WITH AN AMINOSILANE |
| 111. | CABOT MICROELECTRONICS CORPORATION | 7,998,228 | TANTALUM CMP COMPOSITIONS AND METHODS |
| 112. | CABOT MICROELECTRONICS CORPORATION | 7,998,866 | SILICON CARBIDE POLISHING METHOD UTILIZING WATER-SOLUBLE OXIDIZERS |
| 113. | CABOT MICROELECTRONICS CORPORATION | 8,008,202 | RUTHENIUM CMP COMPOSITIONS AND METHODS |
| 114. | CABOT MICROELECTRONICS CORPORATION | 8,017,524 | STABLE, HIGH RATE SILICON SLURRY |

| | OWNER | REGISTRATION NUMBER | DESCRIPTION |
|---|---|---|---|
| 115. | CABOT MICROELECTRONICS CORPORATION | 8,038,752 | METAL ION-CONTAINING CMP COMPOSITION AND METHOD FOR USING THE SAME |
| 116. | CABOT MICROELECTRONICS CORPORATION | 8,057,561 | POLYOXOMETALATE COMPOSITIONS AND METHODS |
| 117. | CABOT MICROELECTRONICS CORPORATION | 8,062,096 | USE OF CMP FOR ALUMINUM MIRROR AND SOLAR CELL FABRICATION |
| 118. | CABOT MICROELECTRONICS CORPORATION | 8,075,372 | POLISHING PAD WITH MICROPOROUS REGIONS |
| 119. | CABOT MICROELECTRONICS CORPORATION | 8,101,093 | CHEMICAL-MECHANICAL POLISHING COMPOSITION AND METHOD FOR USING THE SAME |
| 120. | CABOT MICROELECTRONICS CORPORATION | 8,138,091 | POLISHING COMPOSITION AND METHOD FOR HIGH SILICON NITRIDE TO SILICON OXIDE REMOVAL RATE RATIOS |
| 121. | CABOT MICROELECTRONICS CORPORATION | 8,157,876 | SLURRY COMPOSITION CONTAINING NON-IONIC POLYMER AND METHOD FOR USE |
| 122. | CABOT MICROELECTRONICS CORPORATION | 8,162,723 | METHOD OF POLISHING A TUNGSTEN CARBIDE SURFACE |
| 123. | CABOT MICROELECTRONICS CORPORATION | 8,226,841 | POLISHING COMPOSITION FOR NICKEL-PHOSPHOROUS MEMORY DISKS |
| 124. | CABOT MICROELECTRONICS CORPORATION | 8,247,326 | METHOD OF POLISHING NICKEL-PHOSPHOROUS |
| 125. | CABOT MICROELECTRONICS CORPORATION | 8,247,327 | METHODS AND COMPOSITIONS FOR POLISHING SILICON-CONTAINING SUBSTRATES |
| 126. | CABOT MICROELECTRONICS CORPORATION | 8,247,328 | POLISHING SILICON CARBIDE |
| 127. | CABOT MICROELECTRONICS CORPORATION | 8,251,777 | POLISHING SLURRY FOR ALUMINUM AND ALUMINUM ALLOYS |
| 128. | CABOT MICROELECTRONICS CORPORATION | 8,252,687 | BARRIER SLURRY FOR LOW-K DIELECTRICS |
| 129. | CABOT MICROELECTRONICS CORPORATION | 8,273,142 | SILICON POLISHING COMPOSITIONS WITH HIGH RATE AND LOW DEFECTIVITY |
| 130. | CABOT MICROELECTRONICS CORPORATION | 8,287,793 | METHODS FOR PRODUCING IN-SITU GROOVES IN CHEMICAL MECHANICAL PLANARIZATION (CMP) PADS, AND NOVEL CMP PAD DESIGNS |
| 131. | CABOT MICROELECTRONICS CORPORATION | 8,380,339 | CUSTOMIZED POLISH PADS FOR CHEMICAL MECHANICAL PLANARIZATION |

| | OWNER | REGISTRATION NUMBER | DESCRIPTION |
|---|---|---|---|
| 132. | CABOT MICROELECTRONICS CORPORATION | 8,383,003 | POLISHING SYSTEMS |
| 133. | CABOT MICROELECTRONICS CORPORATION | 8,425,797 | COMPOSITIONS FOR POLISHING ALUMINUM/COPPER AND TITANIUM IN DAMASCENE STRUCTURES |
| 134. | CABOT MICROELECTRONICS CORPORATION | 8,435,421 | METAL-PASSIVATING CMP COMPOSITIONS AND METHODS |
| 135. | CABOT MICROELECTRONICS CORPORATION | 8,439,994 | METHOD OF FABRICATING A POLISHING PAD WITH AN END-POINT DETECTION REGION FOR EDDY CURRENT END-POINT DETECTION |
| 136. | CABOT MICROELECTRONICS CORPORATION | 8,486,169 | METHOD OF POLISHING A SILICON-CONTAINING DIELECTRIC |
| 137. | CABOT MICROELECTRONICS CORPORATION | 8,497,209 | OXIDATION-STABILIZED CMP COMPOSITIONS AND METHODS |
| 138. | CABOT MICROELECTRONICS CORPORATION | 8,518,135 | POLISHING COMPOSITION CONTAINING HYBRID ABRASIVE FOR NICKEL-PHOSPHOROUS COATED MEMORY DISKS |
| 139. | CABOT MICROELECTRONICS CORPORATION | 8,529,680 | COMPOSITIONS FOR CMP OF SEMICONDUCTOR MATERIALS |
| 140. | CABOT MICROELECTRONICS CORPORATION | 8,541,310 | CMP COMPOSITIONS CONTAINING A SOLUBLE PEROXOMETALATE COMPLEX AND METHODS OF USE THEREOF |
| 141. | CABOT MICROELECTRONICS CORPORATION | 8,551,202 | IODATE-CONTAINING CHEMICAL-MECHANICAL POLISHING COMPOSITIONS AND METHODS |
| 142. | CABOT MICROELECTRONICS CORPORATION | 8,557,137 | POLISHING COMPOSITION FOR NICKEL-PHOSPHOROUS MEMORY DISKS |
| 143. | CABOT MICROELECTRONICS CORPORATION | 8,591,763 | HALIDE ANIONS FOR METAL REMOVAL RATE CONTROL |
| 144. | CABOT MICROELECTRONICS CORPORATION | 8,597,538 | COMPOSITION FOR IMPROVING DRYNESS DURING WIRE SAWING |
| 145. | CABOT MICROELECTRONICS CORPORATION | 8,597,540 | COMPOSITIONS FOR POLISHING SILICON-CONTAINING SUBSTRATES |
| 146. | CABOT MICROELECTRONICS CORPORATION | 8,623,766 | COMPOSITION AND METHOD FOR POLISHING ALUMINUM SEMICONDUCTOR SUBSTRATES |
| 147. | CABOT MICROELECTRONICS CORPORATION | 8,623,767 | METHOD FOR POLISHING ALUMINUM/COPPER AND TITANIUM IN DAMASCENE STRUCTURES |

| | OWNER | REGISTRATION NUMBER | DESCRIPTION |
|---|---|---|---|
| 148. | CABOT MICROELECTRONICS CORPORATION | 8,628,384 | POLISHING PAD FOR EDDY CURRENT END-POINT DETECTION |
| 149. | CABOT MICROELECTRONICS CORPORATION | 8,637,404 | METAL CATIONS FOR INITIATING POLISHING |
| 150. | CABOT MICROELECTRONICS CORPORATION | 8,657,653 | HOMOGENEOUS POLISHING PAD FOR EDDY CURRENT END-POINT DETECTION |
| 151. | CABOT MICROELECTRONICS CORPORATION | 8,691,695 | CMP COMPOSITIONS AND METHODS FOR SUPPRESSING POLYSILICON REMOVAL RATES |
| 152. | CABOT MICROELECTRONICS CORPORATION | 8,697,576 | COMPOSITION AND METHOD FOR POLISHING POLYSILICON |
| 153. | CABOT MICROELECTRONICS CORPORATION | 8,702,479 | POLISHING PAD WITH MULTI-MODAL DISTRIBUTION OF PORE DIAMETERS |
| 154. | CABOT MICROELECTRONICS CORPORATION | 8,715,035 | CUSTOMIZED POLISHING PADS FOR CMP AND METHODS OF FABRICATION AND USE THEREOF |
| 155. | CABOT MICROELECTRONICS CORPORATION | 8,741,009 | POLISHING COMPOSITION CONTAINING POLYETHER AMINE |
| 156. | CABOT MICROELECTRONICS CORPORATION | 8,759,216 | COMPOSITIONS AND METHODS FOR POLISHING SILICON NITRIDE MATERIALS |
| 157. | CABOT MICROELECTRONICS CORPORATION | 8,778,211 | GST CMP SLURRIES |
| 158. | CABOT MICROELECTRONICS CORPORATION | 8,778,212 | CMP COMPOSITION CONTAINING ZIRCONIA PARTICLES AND METHOD OF USE |
| 159. | CABOT MICROELECTRONICS CORPORATION | 8,808,573 | COMPOSITIONS AND METHODS FOR SELECTIVE POLISHING OF SILICON NITRIDE MATERIALS |
| 160. | CABOT MICROELECTRONICS CORPORATION | 8,815,110 | COMPOSITION AND METHOD FOR POLISHING BULK SILICON |
| 161. | CABOT MICROELECTRONICS CORPORATION | 8,821,215 | POLYPYRROLIDONE POLISHING COMPOSITION AND METHOD |
| 162. | CABOT MICROELECTRONICS CORPORATION | 8,864,859 | CUSTOMIZED POLISH PADS FOR CMP AND METHODS OF FABRICATION AND USE THEREOF |
| 163. | CABOT MICROELECTRONICS CORPORATION | 8,883,034 | COMPOSITION AND METHOD FOR POLISHING BULK SILICON |
| 164. | CABOT MICROELECTRONICS CORPORATION | 8,906,252 | CMP COMPOSITIONS SELECTIVE FOR OXIDE AND NITRIDE WITH HIGH REMOVAL RATE AND LOW DEFECTIVITY |

| | OWNER | REGISTRATION NUMBER | DESCRIPTION |
|---|---|---|---|
| 165. | CABOT MICROELECTRONICS CORPORATION | 8,916,061 | CMP COMPOSITIONS SELECTIVE FOR OXIDE AND NITRIDE WITH HIGH REMOVAL RATE AND LOW DEFECTIVITY |
| 166. | CABOT MICROELECTRONICS CORPORATION | 8,920,219 | POLISHING PAD WITH ALIGNMENT APERTURE |
| 167. | CABOT MICROELECTRONICS CORPORATION | 8,920,667 | CHEMICAL-MECHANICAL POLISHING COMPOSITION CONTAINING ZIRCONIA AND METAL OXIDIZER |
| 168. | CABOT MICROELECTRONICS CORPORATION | 8,932,116 | METHODS FOR PRODUCING IN-SITU GROOVES IN CHEMICAL MECHANICAL PLANARIZATION (CMP) PADS, AND NOVEL CMP PAD DESIGNS |
| 169. | CABOT MICROELECTRONICS CORPORATION | 8,960,177 | WIRESAW CUTTING METHOD |
| 170. | CABOT MICROELECTRONICS CORPORATION | 8,961,807 | CMP COMPOSITIONS WITH LOW SOLIDS CONTENT AND METHODS RELATED THERETO |
| 171. | CABOT MICROELECTRONICS CORPORATION | 8,968,058 | POLISHING PAD WITH ALIGNMENT FEATURE |
| 172. | CABOT MICROELECTRONICS CORPORATION | 9,017,140 | CMP PAD WITH LOCAL AREA TRANSPARENCY |
| 173. | CABOT MICROELECTRONICS CORPORATION | 9,028,302 | POLISHING PAD FOR EDDY CURRENT END-POINT DETECTION |
| 174. | CABOT MICROELECTRONICS CORPORATION | 9,028,572 | POLISHING COMPOSITION AND METHOD UTILIZING ABRASIVE PARTICLES TREATED WITH AN AMINOSILANE |
| 175. | CABOT MICROELECTRONICS CORPORATION | 9,039,914 | POLISHING COMPOSITION FOR NICKEL-PHOSPHOROUS-COATED MEMORY DISKS |
| 176. | CABOT MICROELECTRONICS CORPORATION | 9,067,297 | POLISHING PAD WITH FOUNDATION LAYER AND POLISHING SURFACE LAYER |
| 177. | CABOT MICROELECTRONICS CORPORATION | 9,067,298 | POLISHING PAD WITH GROOVED FOUNDATION LAYER AND POLISHING SURFACE LAYER |
| 178. | CABOT MICROELECTRONICS CORPORATION | 9,074,118 B2 | CMP METHOD FOR METAL-CONTAINING SUBSTRATES |
| 179. | CABOT MICROELECTRONICS CORPORATION | 9,127,187 | MIXED ABRASIVE TUNGSTEN CMP COMPOSITION |
| 180. | CABOT MICROELECTRONICS CORPORATION | 9,129,907 | ONIUM-CONTAINING CMP COMPOSITIONS AND METHODS OF USE THEREOF |

| | OWNER | REGISTRATION NUMBER | DESCRIPTION |
|---|---|---|---|
| 181. | CABOT MICROELECTRONICS CORPORATION | 9,156,124 | SOFT POLISHING PAD FOR POLISHING A SEMICONDUCTOR SUBSTRATE |
| 182. | CABOT MICROELECTRONICS CORPORATION | 9,156,125 | POLISHING PAD WITH LIGHT-STABLE LIGHT-TRANSMITTING REGION |
| 183. | CABOT MICROELECTRONICS CORPORATION | 9,165,489 | CMP COMPOSITIONS SELECTIVE FOR OXIDE OVER POLYSILICON AND NITRIDE WITH HIGH REMOVAL RATE AND LOW DEFECTIVITY |
| 184. | CABOT MICROELECTRONICS CORPORATION | 9,180,570 | GROOVED CMP PAD |
| 185. | CABOT MICROELECTRONICS CORPORATION | 9,211,628 | POLISHING PAD WITH CONCENTRIC OR APPROXIMATELY CONCENTRIC POLYGON GROOVE PATTERN |
| 186. | CABOT MICROELECTRONICS CORPORATION | 9,238,294 | POLISHING PAD HAVING POROGENS WITH LIQUID FILLER |
| 187. | CABOT MICROELECTRONICS CORPORATION | 9,238,753 | CMP COMPOSITIONS SELECTIVE FOR OXIDE AND NITRIDE WITH HIGH REMOVAL RATE AND LOW DEFECTIVITY |
| 188. | CABOT MICROELECTRONICS CORPORATION | 9,238,754 | COMPOSITION FOR TUNGSTEN CMP |
| 189. | CABOT MICROELECTRONICS CORPORATION | 9,249,273 | POLISHING PAD WITH ALIGNMENT FEATURE |
| 190. | CABOT MICROELECTRONICS CORPORATION | 9,272,388 | POLISHING SYSTEMS |
| 191. | CABOT MICROELECTRONICS CORPORATION | 9,278,424 | CUSTOMIZED POLISHING PADS FOR CMP AND METHODS OF FABRICATION AND USE THEREOF |
| 192. | CABOT MICROELECTRONICS CORPORATION | 9,279,067 | WET-PROCESS CERIA COMPOSITIONS FOR SELECTIVELY POLISHING SUBSTRATES, AND METHODS RELATED THERETO |
| 193. | CABOT MICROELECTRONICS CORPORATION | 9,281,210 | WET-PROCESS CERIA COMPOSITIONS FOR POLISHING SUBSTRATES, AND METHODS RELATED THERETO |
| 194. | CABOT MICROELECTRONICS CORPORATION | 9,296,085 | POLISHING PAD WITH HOMOGENEOUS BODY HAVING DISCRETE PROTRUSIONS THEREON |
| 195. | CABOT MICROELECTRONICS CORPORATION | 9,303,187 | COMPOSITIONS AND METHODS FOR CMP OF SILICON OXIDE, SILICON NITRIDE, AND POLYSILICON MATERIALS |

| | OWNER | REGISTRATION NUMBER | DESCRIPTION |
|---|---|---|---|
| 196. | CABOT MICROELECTRONICS CORPORATION | 9,303,188 | COMPOSITION FOR TUNGSTEN CMP |
| 197. | CABOT MICROELECTRONICS CORPORATION | 9,303,189 | COMPOSITION FOR TUNGSTEN CMP |
| 198. | CABOT MICROELECTRONICS CORPORATION | 9,303,190 | MIXED ABRASIVE TUNGSTEN CMP COMPOSITION |
| 199. | CABOT MICROELECTRONICS CORPORATION | 9,309,442 | COMPOSITION FOR TUNGSTEN BUFFING |
| 200. | CABOT MICROELECTRONICS CORPORATION | 9,330,703 | POLISHING COMPOSITION FOR NICKEL-PHOSPHOROUS MEMORY DISKS |
| 201. | CABOT MICROELECTRONICS CORPORATION | 9,340,706 | MIXED ABRASIVE POLISHING COMPOSITIONS |
| 202. | CABOT MICROELECTRONICS CORPORATION | 9,343,330 | COMPOSITIONS FOR POLISHING ALUMINUM/COPPER AND TITANIUM IN DAMASCENE STRUCTURES |
| 203. | CABOT MICROELECTRONICS CORPORATION | 9,358,659 | COMPOSITION AND METHOD FOR POLISHING GLASS |
| 204. | CABOT MICROELECTRONICS CORPORATION | 9,375,823 | GROOVED CMP PADS |
| 205. | CABOT MICROELECTRONICS CORPORATION | 9,401,104 | POLISHING COMPOSITION FOR EDGE ROLL-OFF IMPROVEMENT |
| 206. | CABOT MICROELECTRONICS CORPORATION | 9,409,276 | CMP POLISHING PAD HAVING EDGE EXCLUSION REGION OF OFFSET CONCENTRIC GROOVE PATTERN |
| 207. | CABOT MICROELECTRONICS CORPORATION | 9,422,455 | CMP COMPOSITIONS EXHIBITING REDUCED DISHING IN STI WAFER POLISHING |
| 208. | CABOT MICROELECTRONICS CORPORATION | 9,422,456 | COLLOIDAL SILICA CHEMICAL MECHANICAL POLISHING COMPOSITION |
| 209. | CABOT MICROELECTRONICS CORPORATION | 9,422,457 | COLLOIDAL SILICA CHEMICAL-MECHANICAL POLISHING CONCENTRATE |
| 210. | CABOT MICROELECTRONICS CORPORATION | 9,425,037 | SILICON POLISHING COMPOSITIONS WITH IMPROVED PSD PERFORMANCE |
| 211. | CABOT MICROELECTRONICS CORPORATION | 9,434,859 | CHEMICAL-MECHANICAL PLANARIZATION OF POLYMER FILMS |
| 212. | CABOT MICROELECTRONICS CORPORATION | 9,463,551 | POLISHING PAD WITH POROUS INTERFACE AND SOLID CORE, AND RELATED APPARATUS AND METHODS |

| | OWNER | REGISTRATION NUMBER | DESCRIPTION |
|---|---|---|---|
| 213. | CABOT MICROELECTRONICS CORPORATION | 9,469,787 | NICKEL PHOSPHOROUS CMP COMPOSITIONS AND METHODS |
| 214. | CABOT MICROELECTRONICS CORPORATION | 9,481,811 | COMPOSITION AND METHOD FOR POLISHING MEMORY HARD DISKS EXHIBITING REDUCED EDGE ROLL-OFF |
| 215. | CABOT MICROELECTRONICS CORPORATION | 9,499,721 | COLLOIDAL SILICA CHEMICAL-MECHANICAL POLISHING COMPOSITION |
| 216. | CABOT MICROELECTRONICS CORPORATION | 9,505,952 | POLISHING COMPOSITION CONTAINING CERIA ABRASIVE |
| 217. | CABOT MICROELECTRONICS CORPORATION | 9,528,030 | COBALT INHIBITOR COMBINATION FOR IMPROVED DISHING |
| 218. | CABOT MICROELECTRONICS CORPORATION | 9,534,147 | POLISHING COMPOSITION AND METHOD FOR NICKEL-PHOSPHOROUS COATED MEMORY DISKS |
| 219. | CABOT MICROELECTRONICS CORPORATION | 9,548,211 | METHOD TO SELECTIVELY POLISH SILICON CARBIDE FILMS |
| 220. | CABOT MICROELECTRONICS CORPORATION | 9,555,518 | POLISHING PAD WITH MULTI-MODAL DISTRIBUTION OF PORE DIAMETERS |
| 221. | CABOT MICROELECTRONICS CORPORATION | 9,556,363 | COPPER BARRIER CHEMICAL-MECHANICAL POLISHING COMPOSITION |
| 222. | CABOT MICROELECTRONICS CORPORATION | 9,566,686 | COMPOSITION FOR TUNGSTEN CMP |
| 223. | CABOT MICROELECTRONICS CORPORATION | 9,567,491 | TUNGSTEN CHEMICAL-MECHANICAL POLISHING COMPOSITION |
| 224. | CABOT MICROELECTRONICS CORPORATION | 9,597,768 | SELECTIVE NITRIDE SLURRIES WITH IMPROVED STABILITY AND IMPROVED POLISHING CHARACTERISTICS |
| 225. | CABOT MICROELECTRONICS CORPORATION | 9,597,769 | POLISHING PAD WITH POLISHING SURFACE LAYER HAVING AN APERTURE OR OPENING ABOVE A TRANSPARENT FOUNDATION LAYER |
| 226. | CABOT MICROELECTRONICS CORPORATION | 9,597,770 | POLISHING PAD WITH APERTURE |
| 227. | CABOT MICROELECTRONICS CORPORATION | 9,597,777 | HOMOGENEOUS POLISHING PAD FOR EDDY CURRENT END-POINT DETECTION |
| 228. | CABOT MICROELECTRONICS CORPORATION | 9,617,450 | POLISHING COMPOSITION AND METHOD UTILIZING ABRASIVE PARTICLES TREATED WITH AN<br><br>AMINOSILANE |

| | OWNER | REGISTRATION NUMBER | DESCRIPTION |
|---|---|---|---|
| 229. | CABOT MICROELECTRONICS CORPORATION | 9,631,122 | TUNGSTEN-PROCESSING SLURRY WITH CATIONIC SURFACTANT |
| 230. | CABOT MICROELECTRONICS CORPORATION | 9,633,863 | COMPOSITIONS AND METHODS FOR SELECTIVE POLISHING OF SILICON NITRIDE MATERIALS |
| 231. | CABOT MICROELECTRONICS CORPORATION | 9,649,742 | POLISHING PAD HAVING POLISHING SURFACE WITH CONTINUOUS PROTRUSIONS |
| 232. | CABOT MICROELECTRONICS CORPORATION | 9,687,956 | POLISHING PAD WITH OFFSET CONCENTRIC GROOVING PATTERN AND METHOD FOR POLISHING A SUBSTRATE THEREWITH |
| 233. | CABOT MICROELECTRONICS CORPORATION | 9,688,885 | COBALT POLISHING ACCELERATORS |
| 234. | CABOT MICROELECTRONICS CORPORATION | 9,701,871 | COMPOSITION AND METHOD FOR POLISHING BULK SILICON |
| 235. | CABOT MICROELECTRONICS CORPORATION | 9,752,057 | CMP METHOD FOR SUPPRESSION OF TITANIUM NITRIDE AND TITANIUM/TITANIUM NITRIDE REMOVAL |
| 236. | CABOT MICROELECTRONICS CORPORATION | 9,758,697 | POLISHING COMPOSITION CONTAINING CATIONIC POLYMER ADDITIVE |
| 237. | CABOT MICROELECTRONICS CORPORATION | 9,771,496 | TUNGSTEN-PROCESSING SLURRY WITH CATIONIC SURFACTANT AND CYCLODEXTRIN |
| 238. | CABOT MICROELECTRONICS CORPORATION | 9,796,882 | CMP PROCESSING COMPOSITION COMPRISING ALKYLAMINE AND CYCLODEXTRIN |
| 239. | CABOT MICROELECTRONICS CORPORATION | 9,803,106 | METHODS FOR FABRICATING A CHEMICAL-MECHANICAL POLISHING COMPOSITION |
| 240. | CABOT MICROELECTRONICS CORPORATION | 9,803,109 | CMP COMPOSIITION FOR SILICON NITRIDE REMOVAL |
| 241. | CABOT MICROELECTRONICS CORPORATION | 9,818,618 | MULTI-LAYER POLISHING PAD FOR CMP |
| 242. | CABOT MICROELECTRONICS CORPORATION | 9,828,528 | POLISHING COMPOSITION CONTAINING CERIA ABRASIVE |
| 243. | CABOT MICROELECTRONICS CORPORATION | 9,828,574 | CLEANING COMPOSITION AND METHOD FOR CLEANING SEMICONDUCTOR WAFERS AFTER CMP |
| 244. | CABOT MICROELECTRONICS CORPORATION | 9,834,704 | COBALT DISHING CONTROL AGENTS |
| 245. | CABOT MICROELECTRONICS CORPORATION | 9,850,402 | CMP COMPOSITIONS AND METHODS FOR SELECTIVE REMOVAL OF SILICON NITRIDE |

| | OWNER | REGISTRATION NUMBER | DESCRIPTION |
|---|---|---|---|
| 246. | CABOT MICROELECTRONICS CORPORATION | 9,850,403 | COBALT POLISHING ACCELERATORS |
| 247. | CABOT MICROELECTRONICS CORPORATION | 9,868,185 | POLISHING PAD WITH FOUNDATION LAYER AND WINDOW ATTACHED THERETO |
| 248. | CABOT MICROELECTRONICS CORPORATION | 9,931,728 | POLISHING PAD WITH FOUNDATION LAYER AND POLISHING SURFACE LAYER |
| 249. | CABOT MICROELECTRONICS CORPORATION | 9,931,729 | POLISHING PAD WITH GROOVED FOUNDATION LAYER AND POLISHING SURFACE LAYER |
| 250. | CABOT MICROELECTRONICS CORPORATION | 9,944,828 | SLURRY FOR CHEMICAL MECHANICAL POLISHING OF COBALT |
| 251. | CABOT MICROELECTRONICS CORPORATION | 9,951,054 | CMP POROUS PAD WITH PARTICLES IN A POLYMERIC MATRIX |
| 252. | CABOT MICROELECTRONICS CORPORATION | 9.909,032 | COMPOSITION AND METHOD FOR POLISHING MEMORY HARD DISKS |
| 253. | CABOT MICROELECTRONICS CORPORATION | D640057 | POLISHING PAD CARRIER |
| 254. | QED TECHNOLOGIES INTERNATIONAL, INC. | 5,951,369 | SYSTEM FOR MAGNETORHEOLOGICAL FINISHING OF SUBSTRATES |
| 255. | QED TECHNOLOGIES INTERNATIONAL, INC. | 6,506,102 | APPARATUS AND METHOD FOR ABRASIVE JET-FINISHING OF DEEPLY CONCAVE SURFACES USING MAGNETORHEOLOGICAL FLUID |
| 256. | QED TECHNOLOGIES INTERNATIONAL, INC. | 6,561,874 | UNIFORM THIN FILMS PRODUCED BY MAGNETORHEOLOGICAL FINISHING |
| 257. | QED TECHNOLOGIES INTERNATIONAL, INC. | 6,746,310 | METHOD AND APPARATUS FOR MEASURING AND CONTROLLING SOLIDS COMPOSITION OF A MAGNETORHEOLOGICAL FLUID |
| 258. | QED TECHNOLOGIES INTERNATIONAL, INC. | 6,893,322 | DELIVERY SYSTEM FOR MAGNETORHEOLOGICAL FLUID |
| 259. | QED TECHNOLOGIES INTERNATIONAL, INC. | 6,955,589 | METHOD FOR SELF-CALIBRATED SUB-APERTURE STITCHING FOR SURFACE FIGURE MEASUREMENT |
| 260. | QED TECHNOLOGIES INTERNATIONAL, INC. | 6,956,657 | METHOD AND APPARATUS FOR FORMING A DYNAMIC MAGNETIC SEAL USING MAGNETORHEOLOGICAL FLUID |
| 261. | QED TECHNOLOGIES INTERNATIONAL, INC. | 7,156,724 | METHOD FOR CALIBRATING THE GEOMETRY OF A MULTI-AXIS METROLOGY SYSTEM |
| 262. | QED TECHNOLOGIES INTERNATIONAL, INC. | 7,173,691 | METHOD FOR ACCURATE HIGH-RESOLUTION MEASUREMENTS OF ASPHERIC SURFACES |

| | OWNER | REGISTRATION NUMBER | DESCRIPTION |
|---|---|---|---|
| 263. | QED TECHNOLOGIES INTERNATIONAL, INC. | 7,433,057 | METHOD AND APPARATUS FOR MEASUREMENT OF MAGNETIC PERMEABILITY OF A MATERIAL |
| 264. | QED TECHNOLOGIES INTERNATIONAL, INC. | 7,557,566 | METHOD AND APPARATUS FOR MEASUREMENT OF MAGNETIC PERMEABILITY OF A MATERIAL |
| 265. | QED TECHNOLOGIES INTERNATIONAL, INC. | 7,888,929 | STITCHING OF NEAR-NULLED SUBAPERTURE MEASUREMENTS |
| 266. | QED TECHNOLOGIES INTERNATIONAL, INC. | 8,203,719 | SYSTEM FOR MAGNETORHEOLOGICAL FINISHING OF SUBSTRATES |
| 267. | QED TECHNOLOGIES INTERNATIONAL, INC. | 8,613,640 | METHOD AND APPARATUS FOR MEASUREMENT AND CONTROL OF MAGNETIC PARTICLE CONCENTRATION IN A MAGNETORHEOLOGICAL FLUID |
| 268. | QED TECHNOLOGIES INTERNATIONAL, INC. | 8,896,293 | SYSTEM FOR MAGNETORHEOLOGICAL FINISHING OF A SUBSTRATE |
| 269. | QED TECHNOLOGIES INTERNATIONAL, INC. | 8,944,883 | INTEGRATED WAVEFRONT SENSOR AND PROFILOMETER |
| 270. | QED TECHNOLOGIES INTERNATIONAL, INC. | 9,097,612 B2 | MAGNETORHEOLOGICAL FLUID FOR ULTRASMOOTH POLISHING |
| 271. | QED TECHNOLOGIES INTERNATIONAL, INC. | 9,157,010 | COBALT INHIBITOR COMBINATION FOR IMPROVED DISHING |
| 272. | Flowchem, Ltd. (n/k/a Flowchem, LLC) | 8,669,304 | DRAG REDUCING COMPOSITIONS AND METHODS OF MANUFACTURE AND USE |
| 273. | Flowchem, Ltd. (n/k/a Flowchem, LLC) | 8,933,149 | Drag Reducing Compositions and Methods of Manufacture and Use |
| 274. | Flowchem, Ltd. (n/k/a Flowchem, LLC) | 9,416,331 | Drag Reducing Compositions and Methods of Manufacture and Use |
| 275. | Flowchem, Ltd. (n/k/a Flowchem, LLC) | 9,267,094 | Drag Reducing Compositions and Methods of Manufacture and Use |
| 276. | KMG Electronic Chemicals, Inc. | 6,125,871 | VALVE ASSEMBLY WITH FLUSH AND SAMPLE CAPABILITY |
| 277. | KMG Electronic Chemicals, Inc. | 6,162,370 | COMPOSITION AND METHOD FOR SELECTIVELY ETCHING A SILICON NITRIDE FILM |
| 278. | KMG Electronic Chemicals, Inc. | 6,303,514 | Composition and method for selectively etching a silicon nitride film |

| | OWNER | REGISTRATION NUMBER | DESCRIPTION |
|---|---|---|---|
| 279. | KMG Electronic Chemicals, Inc. | 6,358,899 | Cleaning compositions and use thereof containing ammonium hydroxide and fluorosurfactant |
| 280. | MPower Specialty Chemicals LLC | 5,869,570 (Expired) | COMPOSITION OF AND PROCESS FOR FORMING POLYALPHAOLEFIN DRAG REDUCING AGENTS |
| 281. | MPower Specialty Chemicals LLC | 5,951,946 (Expired) | COMPOSITION AND METHOD OF REMOVING ODORS |
| 282. | MPower Specialty Chemicals LLC | 6,015,779 | METHODS FOR FORMING AMORPHOUS ULTRA-HIGH MOLECULAR WEIGHT POLYALPHAOLEFIN DRAG REDUCING AGENTS |
| 283. | MPower Specialty Chemicals LLC | 6,162,773 | METHODS FOR FORMING AMORPHOUS ULTRA-HIGH MOLECULAR WEIGHT POLYALPHAOLEFIN DRAG REDUCING AGENTS USING A HALOHYDROCARBON |
| 284. | MPower Specialty Chemicals LLC | 6,242,395 | METHODS FOR FORMING AMORPHOUS ULTRA-HIGH MOLECULAR WEIGHT POLYALPHAOLEFIN DRAG REDUCING AGENTS USING NON-METALLOCENE CATALYSTS AND ALKYLALUMINOXANE |
| 285. | MPower Specialty Chemicals LLC | 6,730,750 | METHODS FOR FORMING AMORPHOUS ULTRA-HIGH MOLECULAR WEIGHT POLYOLEFINS FOR USE AS DRAG REDUCING AGENTS |
| 286. | MPower Specialty Chemicals LLC | 6,730,752 | METHODS FOR FORMING AMORPHOUS ULTRA-HIGH MOLECULAR WEIGHT POLYOLEFINS AND DRAG REDUCING COMPOSITIONS COMPRISING AMORPHOUS ULTRA-HIGH MOLECULAR WEIGHT POLYOLEFINS |
| 287. | MPower Specialty Chemicals LLC | 6,815,011 | ALPHA OLEFIN MONOMER PARTITIONING AGENTS FOR DRAG REDUCING AGENTS AND METHODS OF FORMING DRAG REDUCING AGENTS USING ALPHA OLEFIN MONOMER PARTITIONING AGENTS |
| 288. | MPower Specialty Chemicals LLC | 6,989,357 | ALCOHOL ABSORBED POLYALPHAOLEFIN DRAG REDUCING AGENTS |
| 289. | MPower Specialty Chemicals LLC | 7,012,046 | DRAG REDUCING AGENT SLURRIES HAVING ALFOL ALCOHOLS AND PROCESSES FOR FORMING DRAG REDUCING AGENT SLURRIES HAVING ALFOL ALCOHOLS |
| 290. | MPower Specialty Chemicals LLC | 7,534,403 | BULK POLYMERIZATION REACTORS |
| 291. | MPower Specialty Chemicals LLC | 7,582,708 | BULK POLYMERIZATION REACTOR METHODS |
| 292. | MPower Specialty Chemicals LLC | 8,105,547 | BULK POLYMERIZATION REACTORS |

| | OWNER | REGISTRATION NUMBER | DESCRIPTION |
|---|---|---|---|
| 293. | MPower Specialty Chemicals LLC | 8,106,114 | DRAG REDUCING AGENT AND METHOD OF USE |
| 294. | MPower Specialty Chemicals LLC | 8,110,150 | BULK POLYMERIZATION REACTORS FOR PRODUCING DRAG REDUCER |

U.S. Patent Applications:

| | OWNER | APPLICATION NUMBER | DESCRIPTION |
|---|---|---|---|
| 1. | CABOT MICROELECTRONICS CORPORATION | 12/673,057 | POLISHING PAD |
| 2. | CABOT MICROELECTRONICS CORPORATION | 13/829,990 | POLISHING PAD HAVING POLISHING SURFACE WITH CONTINUOUS PROTRUSIONS HAVING TAPERED SIDEWALLS |
| 3. | CABOT MICROELECTRONICS CORPORATION | 13/955,398 | LOW DENSITY POLISHING PAD |
| 4. | CABOT MICROELECTRONICS CORPORATION | 14/094,921 | CMP COMPOSITIONS AND METHODS FOR POLISHING NICKEL-PHOSPHOROUS SURFACES |
| 5. | CABOT MICROELECTRONICS CORPORATION | 14/209,110 | COMPOSITION AND METHOD FOR POLISHING POLYSILICON |
| 6. | CABOT MICROELECTRONICS CORPORATION | 14/562,589 | METHODS FOR PRODUCING IN-SITU GROOVES IN CHEMICAL MECHANICAL PLANARIZATION (CMP) PADS, AND NOVEL CMP PAD DESIGNS |
| 7. | CABOT MICROELECTRONICS CORPORATION | 14/611,064 | LOW DENSITY POLISHING PAD |
| 8. | CABOT MICROELECTRONICS CORPORATION | 14/639,434 | COMPOSITIONS AND METHODS FOR CMP OF TUNGSTEN MATERIALS |
| 9. | CABOT MICROELECTRONICS CORPORATION | 14/686,988 | COMPOSITION AND METHOD FOR POLISHING MOLYBDENUM |
| 10. | CABOT MICROELECTRONICS CORPORATION | 14/743,583 | CMP SLURRY COMPOSITIONS AND METHODS FOR ALUMINUM POLISHING |
| 11. | CABOT MICROELECTRONICS CORPORATION | 14/823,956 | SOFT POLISHING PAD FOR POLISHING A SEMICONDUCTOR SUBSTRATE |
| 12. | CABOT MICROELECTRONICS CORPORATION | 14/838,460 | COMPOSITION AND METHOD FOR POLISHING A SAPPHIRE SURFACE |
| 13. | CABOT MICROELECTRONICS CORPORATION | 14/875,513 | POLISHING PAD WITH CONCENTRIC OR APPROXIMATELY CONCENTRIC POLYGON GROOVE PATTERN |
| 14. | CABOT MICROELECTRONICS CORPORATION | 14/919,404 | CORROSION INHIBITORS AND RELATED COMPOSITIONS AND METHODS |
| 15. | CABOT MICROELECTRONICS CORPORATION | 15/042,777 | CUSTOMIZED POLISH PADS FOR CMP AND METHODS OF FABRICATION AND USE THEREOF |
| 16. | CABOT MICROELECTRONICS CORPORATION | 15/056,198 | POLISHING COMPOSITION CONTAINING CERIA PARTICLES AND METHOD OF USE |
| 17. | CABOT MICROELECTRONICS CORPORATION | 15/091,275 | CMP COMPOSITION AND METHOD FOR POLISHING RIGID DISKS |

| | OWNER | APPLICATION NUMBER | DESCRIPTION |
|---|---|---|---|
| 18. | CABOT MICROELECTRONICS CORPORATION | 15/252,567 | METHODS AND COMPOSITIONS FOR PROCESSING DIELECTRIC SUBSTRATE |
| 19. | CABOT MICROELECTRONICS CORPORATION | 15/273,855 | POLYURETHANE CMP PADS HAVING A HIGH MODULUS RATIO |
| 20. | CABOT MICROELECTRONICS CORPORATION | 15/303,696 | CMP POLISHING PAD WITH COLUMNAR STRUCTURE AND METHODS RELATED THERETO |
| 21. | CABOT MICROELECTRONICS CORPORATION | 15/346,835 | POLISHING COMPOSITION AND METHOD UTILIZING ABRASIVE PARTICLES TREATED WITH AN AMINOSILANE |
| 22. | CABOT MICROELECTRONICS CORPORATION | 15/398,933 | COMPOSITION AND METHOD FOR POLISHING SILICON CARBIDE |
| 23. | CABOT MICROELECTRONICS CORPORATION | 15/399,810 | METHOD OF POLISHING A LOW-K SUBSTRATE |
| 24. | CABOT MICROELECTRONICS CORPORATION | 15/414,786 | POLISHING COMPOSITION COMPRISING CATIONIC POLYMER ADDITIVE |
| 25. | CABOT MICROELECTRONICS CORPORATION | 15/433,068 | METHOD OF POLISHING GROUP III-V MATERIALS |
| 26. | CABOT MICROELECTRONICS CORPORATION | 15/479,779 | POLISHING PAD HAVING POLISHING SURFACE WITH CONTINUOUS PROTRUSIONS |
| 27. | CABOT MICROELECTRONICS CORPORATION | 15/564,605 | DIAMOND-BASED SLURRIES WITH IMPROVED SAPPHIRE REMOVAL RATE AND SURFACE ROUGHNESS |
| 28. | CABOT MICROELECTRONICS CORPORATION | 15/615,591 | CHEMICAL-MECHANICAL PROCESSING SLURRY AND METHODS FOR PROCESSING A NICKEL SUBSTRATE SURFACE |
| 29. | CABOT MICROELECTRONICS CORPORATION | 15/629,487 | POLISHING COMPOSITION COMPRISING AN AMINE-CONTAINING SURFACTANT |
| 30. | CABOT MICROELECTRONICS CORPORATION | 15/649,378 | ALTERNATIVE OXIDIZING AGENTS FOR COBALT CMP |
| 31. | CABOT MICROELECTRONICS CORPORATION | 15/684,470 | SYSTEMS FOR MIXING A LIQUID AND RELATED METHODS |
| 32. | CABOT MICROELECTRONICS CORPORATION | 15/706,192 | NITRIDE INHIBITORS FOR HIGH SELECTIVITY OF TiN-SiN CMP APPLICATIONS |
| 33. | CABOT MICROELECTRONICS CORPORATION | 15/723,886 | SURFACE TREATED ABRASIVE PARTICLES FOR TUNGSTEN BUFF APPLICATIONS |
| 34. | CABOT MICROELECTRONICS CORPORATION | 15/784,949 | CMP COMPOSITIONS SELECTIVE FOR OXIDE AND NITRIDE WITH IMPROVED DISHING AND PATTERN SELECTIVITY |
| 35. | CABOT MICROELECTRONICS CORPORATION | 15/817,959 | COMPOSITION AND METHOD FOR POLISHING MEMORY HARD DISKS EXHIBITING REDUCED SURFACE SCRATCHING |
| 36. | CABOT MICROELECTRONICS CORPORATION | 15/825,305 | COMPOSITION AND METHOD FOR REMOVING RESIDUE FROM CHEMICAL-MECHANICAL PLANARIZATION SUBSTRATE |
| 37. | CABOT MICROELECTRONICS CORPORATION | 15/864,720 | TUNGSTEN BUFF POLISHING COMPOSITIONS WITH IMPROVED TOPOGRAPHY |
| 38. | CABOT MICROELECTRONICS CORPORATION | 15/866,008 | TUNGSTEN BULK POLISHING METHOD WITH IMPROVED TOPOGRAPHY |
| 39. | CABOT MICROELECTRONICS CORPORATION | 15/875,773 | COATED COMPRESSIVE SUBPAD FOR CHEMICAL MECHANICAL POLISHING |

| | OWNER | APPLICATION NUMBER | DESCRIPTION |
|---|---|---|---|
| 40. | CABOT MICROELECTRONICS CORPORATION | 15/920,813 | CMP COMPOSITIONS CONTAINING POLYMER COMPLEXES AND AGENTS FOR STI APPLICATIONS |
| 41. | CABOT MICROELECTRONICS CORPORATION | 15/934,219 | SELF-STOPPING POLISHING COMPOSITION AND METHOD FOR BULK OXIDE PLANARIZATION |
| 42. | CABOT MICROELECTRONICS CORPORATION | 15/951,358 | CHEMICAL-MECHANICAL PROCESSING SLURRY AND METHODS |
| 43. | CABOT MICROELECTRONICS CORPORATION | 15/951,598 | CHEMICAL-MECHANICAL PROCESSING SLURRY AND METHODS FOR PROCESSING A NICKEL SUBSTRATE SURFACE |
| 44. | CABOT MICROELECTRONICS CORPORATION | 16/000,062 | COMPOSITION AND METHOD FOR POLISHING MEMORY HARD DISKS EXHIBITING REDUCED EDGE ROLL OFF |
| 45. | CABOT MICROELECTRONICS CORPORATION | 16/018,281 | METHODS AND COMPOSITIONS FOR PROCESSING DIELECTRIC SUBSTRATE |
| 46. | CABOT MICROELECTRONICS CORPORATION | 16/131,180 | COMPOSITION FOR TUNGSTEN CMP |
| 47. | CABOT MICROELECTRONICS CORPORATION | PCT/US2016/053283 | POLYURETHANE CMP PADS HAVING A HIGH MODULUS RATIO |
| 48. | CABOT MICROELECTRONICS CORPORATION | PCT/US2016/058042 | TUNGSTEN-PROCESSING SLURRY WITH CATIONIC SURFACTANT |
| 49. | CABOT MICROELECTRONICS CORPORATION | PCT/US2017/036203 | CHEMICAL-MECHANICAL PROCESSING SLURRY AND METHODS FOR PROCESSING A NICKEL SUBSTRATE SURFACE |
| 50. | CABOT MICROELECTRONICS CORPORATION | PCT/US2017/038584 | POLISHING COMPOSITION COMPRISING AN AMINE-CONTAINING SURFACTANT |
| 51. | CABOT MICROELECTRONICS CORPORATION | PCT/US2017/041988 | ALTERNATIVE OXIDIZING AGENTS FOR COBALT CMP |
| 52. | CABOT MICROELECTRONICS CORPORATION | PCT/US2017/056809 | CMP COMPOSITIONS SELECTIVE FOR OXIDE AND NITRIDE WITH IMPROVED DISHING AND PATTERN SELECTIVITY |
| 53. | CABOT MICROELECTRONICS CORPORATION | PCT/US2017/063586 | COMPOSITION AND METHOD FOR REMOVING RESIDUE FROM CHEMICAL-MECHANICAL PLANARIZATION SUBSTRATE |
| 54. | CABOT MICROELECTRONICS CORPORATION | PCT/US2017/067947 | COMPOSITION AND METHOD FOR POLISHING SILICON CARBIDE |
| 55. | CABOT MICROELECTRONICS CORPORATION | PCT/US2018/051012 | COMPOSITION FOR TUNGSTEN CMP |
| 56. | CABOT MICROELECTRONICS CORPORATION | PCT/US2018/054079 | SURFACE TREATED ABRASIVE PARTICLES FOR TUNGSTEN BUFF APPLICATIONS |
| 57. | CABOT MICROELECTRONICS CORPORATION | PCT/US2018/057478 | COMPOSITION AND METHOD FOR POLISHING MEMORY HARD DISKS EXHIBITING REDUCED SURFACE SCRATCHING |
| 58. | CABOT MICROELECTRONICS CORPORATION | PCTUS1824067 | SELF-STOPPING POLISHING COMPOSITION AND METHOD FOR BULK OXIDE PLANARIZATION |
| 59. | CABOT MICROELECTRONICS CORPORATION | PCTUS1827234 | CHEMICAL-MECHANICAL PROCESSING SLURRY AND METHODS |
| 60. | CABOT MICROELECTRONICS CORPORATION | PCTUS1827281 | CHEMICAL-MECHANICAL PROCESSING SLURRY AND METHODS FOR PROCESSING A NICKEL SUBSTRATE SURFACE |

| | OWNER | APPLICATION NUMBER | DESCRIPTION |
|---|---|---|---|
| 61. | CABOT MICROELECTRONICS CORPORATION | PCTUS1846429 | NITRIDE INHIBITORS FOR HIGH SELECTIVITY OF TIN-SIN CMP APPLICATIONS |

**Release of Notice of Grant of Security Interest in Patents recorded April 30, 2021 at Reel/Frame 056104/0979**

## U.S. Federally Issued or Applied for Patents Owned by New Subsidiary

| Title | Country | Serial Number<br>Filing Date | Patent Number<br>Issue Date | Status<br>Deadlines |
|---|---|---|---|---|
| Cleaning System, Device and Method | US | 09/624,750<br>7/24/2000 | 6,777,966<br>8/17/2004 | Issued.<br><br>Claims cover basic cleaning material<br><br>Expires 7/24/2020 + PTA<br>Expired 2/17/2021 |
| Cleaning System, Device and Method | US- CON | 10/825,718<br>4/16/2004 | 7,202,683<br>4/10/2007 | Issued.<br><br>Claims cover basic cleaning material<br><br>Expires 7/24/2020+ PTA<br>Expired 7/24/2020 |
| Working Surface Cleaning System and Method | US- CIP | 13/961,127<br>8/7/2013 | 9,833,818<br>12/5/2017 | Issued. |
| Working Surface Cleaning System and Method | US CON | 15/818,386<br>11/20/2017 | 10,239,099<br>3/26/2019 | Issued. |
| Working Surface Cleaning System and Method | US CON | 16/290,789<br>3/1/2019 | 10,406,568<br>9/10/2019 | Issued. |
| Working Surface Cleaning System and Method | US CON | 16/438,162<br>6/11/2019 | N/A<br>N/A | Pending. |
| Apparatus, Device and Methods for Cleaning Tester Interface Contact Elements and Support Hardware | US | 12/630,714<br>12/3/2009 | 8,371,316<br>2/12/2013 | Issued. |
| Apparatus, Device and Methods for Cleaning Tester Interface Contact Elements and Support Hardware | US – DIV1 | 13/290,015<br>11/4/2011 | 8,801,869<br>8/12/2014 | Issued. |
| Apparatus, Device and Methods for Cleaning Tester Interface Contact Elements and Support Hardware | US – DIV2 | 13/290,017<br>11/4/2011 | 8,790,466<br>7/29/2014 | Issued. |
| Apparatus, Device and Methods for Cleaning Tester Interface Contact Elements and Support Hardware | US – CON | 14/445,003<br>7/28/2014 | 10,195,648<br>2/5/2019 | Issued. |
| Apparatus, Device and Methods for Cleaning Tester Interface Contact Elements and Support Hardware | US – CON | 16/228,664<br>12/20/2018 | N/A<br>N/A | Pending. |

| Title | Country | Serial Number<br>Filing Date | Patent Number<br>Issue Date | Status<br>Deadlines |
|---|---|---|---|---|
| Semiconductor Wire Bonding Machine Cleaning Device and Method | US | 15/495,873<br>4/23/2017 | 9,825,000<br>11/21/2017 | Issued. |
| Semiconductor Wire Bonding Machine Cleaning Device and Method | US – CON | 15/723,151<br>10/2/2017 | 10,361,169<br>7/23/2019 | Issued. |
| Novel Material and Hardware to Automatically Clean Flexible Electronics Web Rolls | US | 16/283,592<br>2/22/2019 | 10,843,885<br>11-24/2020 | Issued. |
| Novel Material and Hardware to Automatically Clean Flexible Electronics Web Rolls | US | 16/283,603<br>2/22/2019 | N/A<br>N/A | Pending. |
| Novel Material and Hardware to Automatically Clean Flexible Electronics Web Rolls | US | 16/283,607<br>2/22/2019 | 10,717,618<br>7/21/2020 | Issued. |
| Novel Material and Hardware to Automatically Clean Flexible Electronics Web Rolls | US | 16/283,613<br>2/22/2019 | N/A<br>N/A | Pending. |
| Pick and Place Machine Cleaning System and Method | US | 16/460,877<br>7/2/2019 | N/A<br>N/A | Pending. |
| Pick and Place Machine Cleaning System and Method | US | 16/460,918<br>7/2/2019 | N/A<br>N/A | Pending. |
| Pick and Place Machine Cleaning System and Method | US | 16/460,929<br>7/2/2019 | N/A<br>N/A | Pending. |
| Pick and Place Machine Cleaning System and Method | US | 16/460,935<br>7/2/2019 | 10,792,713<br>10-6-2020 | Issued |
| Pick and Place Machine Cleaning System and Method | US DIV | 16/794,068<br>2/18/2020 | N/A<br>N/A | Pending. |
| System and Method for Cleaning Contact Elements and Support Hardware Using Functionalized Surface Microfeatures | US | 16/684,453<br>11/14/2019 | N/A<br>N/A | Pending. |
| Functionalized Surface Microfeatures for Wire Bonders | US CIP | 16/855,841<br>4/22/2020 | N/A<br>N/A | Pending. |
| Heat Conductive Wafer | US | 16/872,292<br>5-11-2020 | N/A<br>N/A | Allowed. |
| Wafer Manufacturing Cleaning Apparatus, Process and Method of Use | US | 13/725,827<br>12/21/2012 | Granted 10,002,776<br>(6/19/2018) | Granted. Expires (10/7/2030); Assignment to be recorded with USPTO |

| Title | Country | Serial Number<br>Filing Date | Patent Number<br>Issue Date | Status<br>Deadlines |
|---|---|---|---|---|
| | | | | Assignment recorded 3/4/21 at Reel 055500 Frame 0329 |
| Wafer Manufacturing Cleaning Apparatus, Process and Method of Use | US | 13/971,619<br>8/20/2013 | Granted 9,595,456<br>(3/14/2017) | Granted. Expires (4/14/2030); Assignment to be recorded with USPTO<br>Assignment recorded 3/4/21 at Reel 055500 Frame 0329 |
| Wafer Manufacturing Cleaning Apparatus, Process and Method of Use | US | 15/419,840<br>1/30/2017 | Granted 10,109,504<br>(10/23/2018) | Granted. Expires (4/14/2030); Assignment to be recorded with USPTO<br>Assignment recorded 3/4/21 at Reel 055500 Frame 0329 |
| Wafer Manufacturing Cleaning Apparatus, Process and Method of Use | US | 16/136,965<br>9/20/2018 | Granted 10,741,420<br>(8/11/2020) | Granted. Expires (4/14/2030); Assignment to be recorded with USPTO<br>Assignment recorded 3/4/21 at Reel 055500 Frame 0329 |
| Wafer Manufacturing Cleaning Apparatus, Process and Method of Use | US | 16/895,106<br>6/8/2020 | Granted 10,896,828<br>(1/19/2021) | Granted. Expires (4/14/2030); Assignment to be recorded with USPTO<br>Assignment recorded 3/4/21 at Reel 055500 Frame 0329 |

**Release of Notice of Grant of Security Interest in Patents recorded July 2, 2021 at Reel/Frame 056752/0645**

U.S. Patents and Applications:

| | Owner | Patent Title | Appl. No. Filing Date | Patent No. Issue Date |
|---|---|---|---|---|
| 1. | CMC Materials, Inc. | Polishing Composition And Method Utilizing Abrasive Particles Treated With An Aminosilane | 16664235 10/25/2019 | 11034862 06/15/2021 |
| 2. | CMC Materials, Inc. | Polishing Composition And Method With High Selectivity For Silicon Nitride And Polysilicon Over Silicon Oxide | 17076989 10/22/2020 | N/A |
| 3. | CMC Materials, Inc. | Composition And Method For Dielectric CMP | 17077070 10/22/2020 | N/A |
| 4. | CMC Materials, Inc. | Composition And Method For Dielectric CMP | 17077155 10/22/2020 | N/A |
| 5. | CMC Materials, Inc. | Composition And Method For Silicon Oxide And Carbon Doped Silicon Oxide CMP | 17077295 10/22/2020 | N/A |
| 6. | CMC Materials, Inc. | Self-Stopping Polishing Composition And Method | 17077414 10/22/2020 | N/A |
| 7. | CMC Materials, Inc. | Composition And Method For Selective Oxide CMP | 17077485 10/22/2020 | N/A |
| 8. | CMC Materials, Inc. | Composition And Method For Polysilicon CMP | 17009961 09/02/2020 | N/A |
| 9. | CMC Materials, Inc. | Method To Increase Barrier Film Removal Rate In Bulk Tungsten Slurry | 16513404 07/16/2019 | N/A |
| 10. | CMC Materials, Inc. | Polishing Pad Employing Polyamine And Cyclohexanedimethanol Curatives | 16923688 07/08/2020 | N/A |
| 11. | CMC Materials, Inc. | Chemical Mechanical Planarization Pads With Constant Groove Volume | 16868755 05/07/2020 | N/A |
| 12. | CMC Materials, Inc. | Chemical Mechanical Planarization Pads Via Vat-Based Production | 16868965 05/07/2020 | N/A |
| 13. | CMC Materials, Inc. | Surface Coated Abrasive Particles For Tungsten Buff Applications | 16849021 04/15/2020 | N/A |
| 14. | CMC Materials, Inc. | Additives To Improve Particle Dispersion For CMP Slurry | 16826409 03/23/2020 | N/A |
| 15. | CMC Materials, Inc. | Dual Additive Composition For Polishing Memory Hard Disks Exhibiting Edge Roll Off | 16729905 12/30/2019 | N/A |
| 16. | CMC Materials, Inc. | Oxidizer Free Slurry For Ruthenium CMP | 16706991 12/09/2019 | N/A |
| 17. | CMC Materials, Inc. | Composition And Method For Silicon Nitride CMP | 16208779 12/04/2018 | N/A |
| 18. | CMC Materials, Inc. | Composition And Method For Cobalt CMP | 16208703 12/04/2018 | N/A |
| 19. | CMC Materials, Inc. | Composition And Method For Polishing Silicon Carbide | 16389097 04/19/2019 | N/A |
| 20. | CMC Materials, Inc. | Composition And Method For Copper Barrier CMP | 16208797 12/04/2018 | 10988635 04/27/2021 |
| 21. | CMC Materials, Inc. | COMPOSITION AND METHOD FOR METAL CMP | 16208742 12/04/2018 | 10968366 04/06/2021 |
| 22. | CMC Materials, Inc. | Self-Stopping Polishing Composition And Method For Bulk Oxide Planarization | 16797438 02/21/2020 | 10920107 02/16/2021 |
| 23. | CMC Materials, Inc. | Self-Stopping Polishing Composition And Method For Bulk Oxide Planarization | 16271508 02/08/2019 | 10619076 04/14/2020 |

| | Owner | Patent Title | Appl. No.<br>Filing Date | Patent No.<br>Issue Date |
|---|---|---|---|---|
| 24. | CMC Materials, Inc. | Composition For Tungsten CMP | 16236962<br>12/31/2018 | 10676647<br>06/09/2020 |
| 25. | CMC Materials, Inc. | Safety Closures And Pumping Systems | 14577453<br>12/19/2014 | 10184469<br>01/22/2019 |

# SCHEDULE II

## Release of Notice of Grant of Security Interest in Trademarks recorded November 16, 2018 at Reel/Frame 6483/0177

### Trademarks

**UNITED STATES TRADEMARKS:**

U.S. Trademark Registrations:

| | OWNER | REGISTRATION NUMBER | TRADEMARK |
|---|---|---|---|
| 1. | Cabot Microelectronics Corporation | 4,372,801 | ELEMENT |
| 2. | Cabot Microelectronics Corporation | 2,363,181 | EPIC |
| 3. | Cabot Microelectronics Corporation | 2,517,587 | ICUE |
| 4. | Cabot Microelectronics Corporation | 4,613,239 | IDIEL |
| 5. | Cabot Microelectronics Corporation | 2,632,288 | LUSTRA |
| 6. | Cabot Microelectronics Corporation | 5,354,755 | MEDEA |
| 7. | Cabot Microelectronics Corporation | 3,702,810 | NEXPLANAR |
| 8. | Cabot Microelectronics Corporation | 1,704,025 | SEMI-SPERSE |
| 9. | Cabot Microelectronics Corporation | 1,917,115 | SEMI-SPERSE |
| 10. | Cabot Microelectronics Corporation | 3,103,184 | SILECT |
| 11. | Cabot Microelectronics Corporation | 3,623,364 | TRANSELE |
| 12. | Cabot Microelectronics Corporation | 3,456,932 | WIN |
| 13. | Epoch Material Co., Ltd. | 3,451,884 | EPOCH |
| 14. | Epoch Material Co., Ltd. | 2,499,905 | ETERPOL |
| 15. | QED Technologies International, Inc. | 3,737,365 | ASI |
| 16. | QED Technologies International, Inc. | 2,827,173 | MRF |
| 17. | QED Technologies International, Inc. | 4,303,897 | QED OPTICS |
| 18. | QED Technologies International, Inc. | 2,777,617 | QED TECHNOLOGIES |
| 19. | QED Technologies International, Inc. | 4,270,737 | Q-FLEX |
| 20. | Flowchem, Ltd. (n/k/a Flowchem, LLC) | 2971771 | TURBOFLO |
| 21. | KMG Electronic Chemicals, Inc. | 1851237 | CLEANROOM |
| 22. | KMG Electronic Chemicals, Inc. | 1705722 | GIGABIT |
| 23. | KMG Electronic Chemicals, Inc. | 3949164 | NANO-STRIP |
| 24. | KMG Electronic Chemicals, Inc. | 3306579 | NANO-STRIP |
| 25. | KMG Electronic Chemicals, Inc. | 1533823 | PARTICU-LO |
| 26. | KMG Electronic Chemicals, Inc. | 2189410 | PARTICU-LO LTM |
| 27. | KMG Electronic Chemicals, Inc. | 1870262 | TERABIT |
| 28. | KMG Electronic Chemicals, Inc. | 1907795 | ULTRA-ETCH |
| 29. | KMG-Bernuth, Inc. | 0821851 | BUENO |
| 30. | KMG Ultra Pure Chemicals Limited | 4697731 (66A) | OMNI |
| 31. | KMG Ultra Pure Chemicals Limited | 4177579 (66A) | OMNICU |

| | OWNER | REGISTRATION NUMBER | TRADEMARK |
|---|---|---|---|
| 32. | KMG-Bernuth, Inc. | 0821805 | DACONATE |
| 33. | MPower Specialty Chemicals LLC | 2994247 | HIPR |
| 34. | MPower Specialty Chemicals LLC | 2243649 | X-PAND |
| 35. | Sealweld (USA), Inc. | 2142260 | SEALWELD |
| 36. | Sealweld (USA), Inc. | 5514442 | FLOW WOLF |
| 37. | Sealweld (USA), Inc. | 5514443 | CHAMELEON SEAL |
| 38. | Sealweld (USA), Inc. | 5520231 | ACTIV-8 |
| 39. | Sealweld (USA), Inc. | 5498636 | VALVE CLEANER PLUS |
| 40. | Valves Incorporated of Texas | 4053560 | VIPER |

U.S. Trademark Applications:

None.

**Release of Notice of Grant of Security Interest in Trademarks recorded April 30, 2021 at Reel/Frame 7276/0107**

**U.S. Federally Registered or Applied for Trademarks Owned by New Subsidiary**

| Mark | Image | Country | Application Date | Application Number | Registration Date | Registration Number | Goods and Services | Status |
|---|---|---|---|---|---|---|---|---|
| PROBE REFRESH[1] | Probe Refresh | USPTO | **App** 13-SEP-2017 | **App** 87606969 | **Reg** 31-DEC-2019 | **Reg** 5947138 | **INT. CL. 3** CLEANING MATERIALS BEING ABRASIVE SHEETS OF POLYMER FILM EMBEDDED WITH ABRASIVES FOR CLEANING OF ELECTRONIC COMPONENT AND CIRCUIT MATERIALS | Registered |
| PROBE VERTICAL | Probe Vertical | USPTO | **App** 13-SEP-2017 | **App** 87606989 | **Reg** 31-DEC-2019 | **Reg** 5947139 | **INT. CL. 3** CLEANING MATERIALS BEING ABRASIVE SHEETS OF POLYMER FILM EMBEDDED WITH ABRASIVES FOR CLEANING OF ELECTRONIC COMPONENT AND CIRCUIT MATERIALS | Registered |
| ETCH CLEAN | ETCH CLEAN | USPTO | **App** 27-SEP-2013 | **App** 86077492 | **Reg** 04-FEB-2014 | **Reg** 4479239 | **INT. CL. 3** CLEANER FOR USE ON INTEGRATED CIRCUITS TO COLLECT AND REMOVE DEBRIS GENERATED DURING | Registered Supplemental Register |

[1] Record ownership for all trademarks and trademark applications are in prior name of International Test Solutions, Inc. Company will be filing assignment to update record ownership to International Test Solutions, LLC

| Mark | Image | Country | Application Date | Application Number | Registration Date | Registration Number | Goods and Services | Status |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | MANUFACTURING; CLEANING AGENTS AND PREPARATIONS | |
| STAGE CLEAN[2] | STAGE CLEAN | USPTO | **App** 13-AUG-2013 | **App** 86037041 | **Reg** 22-APR-2014 | **Reg** 4517513 | **INT. CL. 3** CLEANER FOR USE ON INTEGRATED CIRCUITS TO COLLECT AND REMOVE DEBRIS GENERATED DURING MANUFACTURING; CLEANING AGENTS AND PREPARATIONS | Registered |
| CCW | CCW | USPTO | **App** 08-MAY-2009 | **App** 77733035 | **Reg** 15-DEC-2009 | **Reg** 3725048 | **INT. CL. 3** CLEANING PREPARATIONS FOR COLLECTING AND/OR REMOVING DEBRIS GENERATED DURING TESTING OF INTEGRATED CIRCUITS | Renewed (Registered) |
| SCD | SCD | USPTO | **App** 08-MAY-2009 | **App** 77733038 | **Reg** 15-DEC-2009 | **Reg** 3725049 | **INT. CL. 3** CLEANING PREPARATIONS FOR COLLECTING AND/OR REMOVING DEBRIS GENERATED DURING TESTING OF INTEGRATED CIRCUITS | Renewed (Registered) |

[2] Record ownership for all trademarks and trademark applications are in prior name of International Test Solutions, Inc. Company to file assignment to update record ownership to International Test Solutions, LLC

| Mark | Image | Country | Application Date | Application Number | Registration Date | Registration Number | Goods and Services | Status |
|---|---|---|---|---|---|---|---|---|
| TCC | TCC | USPTO | **App** 08-MAY-2009 | **App** 77733039 | **Reg** 20-JUL-2010 | **Reg** 3820328 | **INT. CL. 3** CLEANING PREPARATIONS FOR COLLECTING AND/OR REMOVING DEBRIS GENERATED DURING TESTING OF INTEGRATED CIRCUITS FOR USE BY INDIVIDUAL DEVICE MANUFACTURERS SUCH AS CONSTRUCTORS, FABRICATORS OR ASSEMBLERS OF END-PRODUCT ELECTRONIC DEVICES IN ORDER TO PREPARE FOR THE TESTING OF THE PERFORMANCE OF THE COMPONENT INTEGRATED CIRCUITS FOR THEIR PRODUCTS | Renewed (Registered) |
| PROBE POLISH | PROBE POLISH | USPTO | **App** 18-DEC-2008 | **App** 77636417 | **Reg** 28-JUL-2009 | **Reg** 3660513 | **INT. CL. 3** CLEANING MATERIAL COMPRISED OF POLYMER CHAINS USED TO COLLECT AND/OR REMOVE DEBRIS GENERATED DURING TESTING OF INTEGRATED CIRCUITS | Renewed (Registered)Section 2(F) |

| Mark | Image | Country | Application Date | Application Number | Registration Date | Registration Number | Goods and Services | Status |
|---|---|---|---|---|---|---|---|---|
| PROBE SCRUB | PROBE SCRUB | USPTO | **App** 18-DEC-2008 | **App** 77636420 | **Reg** 28-JUL-2009 | **Reg** 3660514 | **INT. CL. 3** CLEANING MATERIAL USED TO COLLECT AND/OR REMOVE DEBRIS GENERATED DURING TESTING OF INTEGRATED CIRCUITS | Renewed (Registered) Section 2(F) |
| PROBE CLEAN[3] | PROBE CLEAN | USPTO | **App** 15-DEC-2008 | **App** 77633420 | **Reg** 28-JUL-2009 | **Reg** 3660499 | **INT. CL. 3** CLEANING MATERIAL USED TO COLLECT AND/OR REMOVE DEBRIS GENERATED DURING TESTING OF INTEGRATED CIRCUITS | Renewed (Registered) Section 2(F) |
| PROBE LAP | PROBE LAP | USPTO | **App** 09-AUG-2006 | **App** 78948800 | **Reg** 12-JUN-2007 | **Reg** 3251735 | **INT. CL. 3** CLEANING PREPARATIONS FOR CLEANING AND REMOVING DEBRIS GENERATED DURING TESTING OF INTEGRATED CIRCUITS | Renewed (Registered) |
| PROBE FORM | | USPTO | **App** 23-JUL-2001 | **App** 76289852 | **Reg** 29-OCT-2002 | **Reg** 2642325 | **INT. CL. 3** CLEANING MATERIAL COMPRISED OF POLYMER CHAINS USED TO COLLECT AND/OR REMOVE DEBRIS GENERATED DURING TESTING OF INTEGRATED CIRCUITS | Renewed (Registered) |

[3] Record ownership for all trademarks and trademark applications are in prior name of International Test Solutions, Inc. Company will be filing assignment to update record ownership to International Test Solutions, LLC

| Mark | Image | Country | Application Date | Application Number | Registration Date | Registration Number | Goods and Services | Status |
|---|---|---|---|---|---|---|---|---|
| PROBE POLISH | | USPTO | **App** 23-JUL-2001 | **App** 76289858 | **Reg** 20-AUG-2002 | **Reg** 2610970 | **INT. CL. 3** CLEANING MATERIAL COMPRISED OF POLYMER CHAINS USED TO COLLECT AND/OR REMOVE DEBRIS GENERATED DURING TESTING OF INTEGRATED CIRCUITS | Renewed (Registered) Supplemental Register |
| INTERNATIONAL TEST SOLUTIONS | | USPTO | **App** 23-JUL-2001 | **App** 76289860 | **Reg** 19-NOV-2002 | **Reg** 2651534 | **INT. CL. 3** CLEANING MATERIAL COMPRISED OF POLYMER CHAINS USED TO COLLECT AND/OR REMOVE DEBRIS GENERATED DURING TESTING OF INTEGRATED CIRCUITS | Renewed (Registered) Partial Section 2(F) |
| PROBE CLEAN | | USPTO | **App** 23-JUL-2001 | **App** 76289916 | **Reg** 23-JUL-2002 | **Reg** 2599807 | **INT. CL. 3** CLEANING MATERIAL COMPRISED OF POLYMER CHAINS USED TO COLLECT AND/OR REMOVE DEBRIS GENERATED DURING TESTING OF INTEGRATED CIRCUITS | Renewed (Registered) Supplemental Register |
| PROBE SCRUB | | USPTO | **App** 23-JUL-2001 | **App** 76289917 | **Reg** 23-JUL-2002 | **Reg** 2599808 | **INT. CL. 3** CLEANING MATERIAL COMPRISED OF POLYMER CHAINS USED TO COLLECT AND/OR REMOVE DEBRIS GENERATED DURING TESTING OF | Renewed (Registered) Supplemental Register |

| Mark | Image | Country | Application Date | Application Number | Registration Date | Registration Number | Goods and Services | Status |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | INTEGRATED CIRCUITS | |

**Release of Notice of Grant of Security Interest in Trademarks recorded July 2, 2021 at Reel/Frame 7345/0418**

U.S. Trademarks and Applications:

| | Owner | Trademark | Appl. No.<br>Filing Date | Reg. No.<br>Reg. Date |
|---|---|---|---|---|
| 1. | CMC Materials, Inc. | SEALVALVE | 87978962<br>09/30/2016 | 6010732<br>03/17/2020 |
| 2. | CMC Materials, Inc. | EQUA-LUBE EIGHTY | 87219669<br>10/28/2016 | 5944473<br>12/24/2019 |
| 3. | CMC Materials, Inc. | TOTAL-LUBE #911 | 87219660<br>10/28/2016 | 5638495<br>12/25/2018 |
| 4. | CMC Materials, Inc. | SEALVALVE | 87189937<br>09/30/2016 | 5969362<br>01/21/2020 |
| 5. | CMC Materials, Inc. | SEALWELD | 87189442<br>09/30/2016 | 6085978<br>06/23/2020 |
| 6. | CMC Materials, Inc. | GRIZZLY SEAL | 87189421<br>09/30/2016 | 5807265<br>07/16/2019 |
| 7. | CMC Materials, Inc. | VALVEPRO | 87189409<br>09/30/2016 | 5938369<br>12/17/2019 |
| 8. | CMC Materials, Inc. | SUPERGUN | 87189379<br>09/30/2016 | 5938368<br>12/17/2019 |
| 9. | CMC Materials, Inc. | UNI-SEAL | 87189370<br>09/30/2016 | 5633402<br>12/18/2018 |
| 10. | CMC Materials, Inc. | AUSCILLATER | 87189352<br>09/30/2016 | 5788180<br>06/25/2019 |