

# SCIO DIAMOND TECHNOLOGY CORP

## FORM 8-K (Current report filing)

Filed 04/19/13 for the Period Ending 04/18/13

Address	411 UNIVERSITY RIDGE, SUITE D GREENVILLE, SC 29601
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CIK	0001488934
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SIC Code	3290 - Abrasive, Asbestos, And Miscellaneous
Industry	Constr. - Supplies & Fixtures
Sector	Capital Goods
Fiscal Year	03/31

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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549**

**FORM 8-K**

**CURRENT REPORT**

**PURSUANT TO SECTION 13 OR 15(d) OF  
THE SECURITIES EXCHANGE ACT OF 1934**

Date of Report: **April 18, 2013**  
(Date of earliest event reported)

**SCIO DIAMOND TECHNOLOGY CORPORATION**

(Exact name of registrant as specified in its charter)

Commission File Number: **333-166786**

**Nevada**  
(State or other jurisdiction of incorporation)

**45-3849662**  
(IRS Employer Identification No.)

**411 University Ridge Suite D  
Greenville, SC 29601**  
(Address of principal executive offices, including zip code)

**(864) 751-4880**  
(Registrant's telephone number, including area code)

**Not Applicable**  
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
  - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
  - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
  - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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**Item 7.01 Regulation FD Disclosure.**

The following information (including Exhibit 99.1 and Exhibit 99.2 referenced below) is being “furnished” in accordance with General Instruction B.2 of Form 8-K and shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), or otherwise subject to the liabilities of that section, nor shall it be deemed to be incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in such filing.

On April 18, 2013, Scio Diamond Technology Corporation (the “Company”) announced that it will be featured on an upcoming airing of “Built in America,” a Fox Business News show. The Company also announced its year ending production status. A copy of the press release is furnished as Exhibit 99.1 to this Current Report on Form 8-K and incorporated by reference herein.

Also on April 18, 2013, the Company posted its current investor slide presentation on its website. The slide presentation is attached hereto as Exhibit 99.2, and is available to the public under the Investor Relations section of the Company’s website at [www.sciodiamond.com](http://www.sciodiamond.com), under “Webcasts and Presentations.” The Company has prepared this slide presentation to provide public disclosure of certain operational information. The information provided in this presentation was based on information available to the Company as of the date of this filing. The Company does not undertake any obligation to update this investor slide presentation as conditions change or as additional information becomes available.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits.

99.1 Press Release issued on April 18, 2013

99.2 Slide Presentation

**SIGNATURE**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

SCIO DIAMOND TECHNOLOGY CORPORATION

By: /s/ Michael McMahon  
Michael McMahon  
Chief Executive Officer

Date: April 18, 2013



### **Sci Diamond Announces Documentary and Production Status**

GREENVILLE, SC, April 18, 2013 /CNW/ – Sci Diamond Technology Corporation (OTCBB: SCIO.OB) (hereinafter “Sci” or the “company”) today announced that it has been selected to be featured on the Fox Business News show “Built in America”. Sci also announced fiscal year ending production status.

Sci, in concert with Studio 1080 Inc., is proud to announce that it will be featured on the premier airing of “Built In America” on the Fox Business Network on April 28 at 2:30 PM. “This is a very exciting time for Sci”, said Michael McMahon, Sci’s CEO. “To be selected as a featured article on the premier showing of Built in America is a great opportunity for Sci Diamond to show Fox’s 68 million-viewer audience our one-of-a-kind technology”.

“While filming the Sci Diamond feature, we were truly amazed at this diamond making technology and impact it will have in the future to all of us”, said Mr. Collin Williams, Executive Producer / Director of Studio 1080. It was astounding to actually watch diamond growing and learn the many, many uses of diamond”.

March 31, 2013 ended Sci Diamond’s first complete year of operation and fiscal year. During that year Sci designed and built its new production facility in Greenville, SC and relocated all production equipment from Massachusetts to Greenville. Production began in earnest in July and over the last nine months Sci has produced over 15,000 carats of lab grown single crystal rough diamond. Sci has been shipping product and have been earning revenue since September of 2012.

“It has been an exciting first year of operation”, says Michael McMahon. “Our staff has worked endless hours, 7 days a week to bring our facility to this point”. Sci produced 275 carats of single crystal lab grown diamond per week in its first quarter of operation (July - September 2012). Its average production in the last quarter (January- March 2013) exceeded 600 rough carats of single crystal diamond per week.

In addition to the production of diamond, Sci has an operational diamond laser fabrication operation, which allows it to self-sustain its seed production and customize product for both industrial and gemstone customers.

“The demand of product continues to be very high in both the gemstone and industrial market segments”, says McMahon. “Even though we are convinced that our one of kind technology produces more diamond per reactor than any other technology, we are far from our ultimate production levels”.

#### **About Sci**

Sci employs a patent-protected chemical vapor deposition process to produce high-quality, single-crystal diamonds in a controlled laboratory setting, with such diamonds referred to as “lab-grown” or cultivated diamonds. These cultivated diamonds have chemical, physical and optical properties identical to mined diamonds. The company’s manufacturing process enables it to produce high-quality, high-purity, single-crystal colorless, near colorless and fancy colored diamonds.

Sci’s technology offers the flexibility to produce lab-grown diamonds in size, color and quality combinations that are very rare in nature. Sci produces diamonds for industrial, gemstone, medical and semiconductor applications.

### **Cautionary Note Regarding Forward-Looking Statements**

This press release contains forward-looking statements that may involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Scio to be materially different from future results, performance or achievements expressed or implied by any forward-looking statements. Forward-looking statements, which involve assumptions and describe future plans, strategies and expectations of the company, are generally identifiable by use of the words “may,” “will,” “should,” “could,” “would,” “forecast,” “potential,” “continue,” “contemplate,” “expect,” “anticipate,” “estimate,” “believe,” “intend,” “or” “project” or the negative of these words or other variations on these words or comparable terminology. These forward-looking statements are based on assumptions that may be incorrect, and there can be no assurance that these projections included in these forward-looking statements will come to pass. Actual results of the company could differ materially from those expressed or implied by the forward-looking statements as a result of various factors. Except as required by applicable laws, the company has no obligation to update publicly any forward-looking statements for any reason, even if new information becomes available or other events occur in the future.

### **SOURCE: Scio Diamond**

For further information: Scio Diamond Technology Corporation, Michael McMahon – [mmcmahon@sciodiamond.com](mailto:mmcmahon@sciodiamond.com)

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# SCIODIAMOND

Technology Corporation



**Created by Nature, Perfected by Science**

**April 2013**

This presentation contains forward-looking statements that are based on the beliefs of Sci Diamond's management and reflect Sci's current expectations and projections about future results, performance, prospects and opportunities. Sci has tried to identify these statements by using words such as "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "plan," "project," "potential," "should," "will," "will be," "would" and similar expressions, but this is not an exclusive way of identifying such statements. Investors are cautioned that all forward-looking statements contained herein speak only as of the date of this presentation and involve risks and uncertainties that could cause Sci's actual results, performance and achievements to differ materially from those expressed in these forward-looking statements, including, without limitation, the impact of the current challenging global economic conditions and recent financial crisis; the development of the market for cultured diamonds; competition; Sci's ability to raise the capital required for research, product development, operations and marketing; anticipated dependence on material customers and material suppliers. For a detailed discussion of factors that could affect Sci's future operating results, investors should see disclosures under "Risk Factors" in the company's applicable filings with the US Securities and Exchange Commission. These factors should be considered carefully and investors should not rely on any forward-looking statements contained herein, or that may be made elsewhere from time to time by Sci or on Sci's behalf. Sci undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as expressly required by law.



Trading Symbol	OTC BB: SCIO
Corporate Headquarters	Greenville, SC
Stock Price (3/1/2013) (52-Week Range)	\$1.00 (\$0.71 to \$3.38)
Shares Outstanding	46.53M
Daily Volume (90-day average at 3-1-2013)	15,802
Market Capitalization (3/1/2013)	\$46.53M
Debt at 12-31-12	\$0
Cash at 12-31-12	\$1.20M
Enterprise Value	\$45.33M
Full-time Employees as of 4/1/2013	10
Fiscal Year Ends	March 30
Accounting Firm	Cherry, Bekaert & Holland, LLP

- Scio manufactures diamond that is “real diamond”
- We employ a patent-protected Chemical Vapor Deposition (CVD) process that produces high-quality, single crystal diamond in a controlled laboratory setting
- Our diamond has chemical, physical and optical properties identical to mined diamonds
- Our manufacturing process enables us to produce high quality, high purity single-crystal diamond that is colorless, near colorless and fancy colored
- Our proprietary technology offers the flexibility to produce lab-grown diamond in size, color and quality combinations that are very rare in nature

- 2003 - Apollo was formed with a focus on R&D and creating “the perfect diamond”
  - Created proprietary diamond-growing equipment
  - Raised ~ \$30M+ creating development and IP used today
  - Focused on gem market rather than commercial market
- 2010 - Apollo discontinued operations
- Sept. 2011 - Scio completed reverse merger and purchased certain assets and Intellectual Property from Apollo, \$2MM, 17MM shares
- March 2012 - Scio relocated equipment to Greenville, SC
- July 2012 - Began production
- July 2012 - Signed multi-million dollar order for cutter blades with international client
- Late 2012 - production ramp – Phase I
- March 2013 - Produced over 15,000 carats of diamond

## MANAGEMENT

**Michael McMahon, Chief Executive Officer** - 35 years of executive experience in operations and business development of Fortune 100 companies such as Fluor and Jacobs Engineering. Throughout his career he was responsible for over \$19 billion of engineering, construction, startup and commissioning of facilities worldwide primarily serving clients in the high tech industry, DoE, and DoD. He has successfully led project turnarounds, business development, process controls and improvements, startups, joint ventures, mergers and acquisitions, and profit improvement initiatives. Mr. McMahon has a BS from the University of Cincinnati.

**Jonathan Pfohl, Chief Financial Officer** - More than 25 years of leadership experience in the wireless industry, including roles as CEO of Wireless Express; CFO of Main Street Broadband; CFO of Movida Cellular; and VP, Finance of AirGate PCS, Inc. He has broad and deep experience in funding, planning, SEC reporting, business development and expense control for small to mid-sized companies. Mr. Pfohl has a BS-Management and an MBA-Finance from the State University of New York at Buffalo.

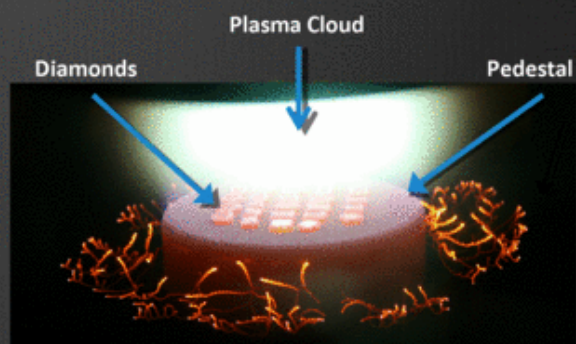
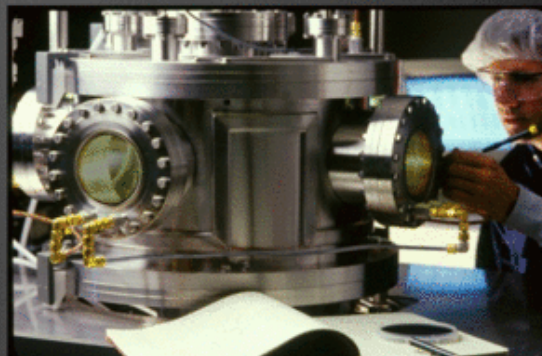
## TECHNICAL EXPERTISE

**Al Genis, Director of Technology** - More than 25 years of experience in leadership experience from high tech sector companies such as SOITEC, Schlumberger, Micracor, Ibis, Spectrum Technologies and Apollo Diamond. The last 10 years have been spend establishing growth and fabrication methods for single-crystal diamond. He holds five patents directly applicable to lab-grown diamonds.

**Chuck Wuorio, Director of Growth** - More than 30 years operational experience from the high tech industry inclusive of companies such as Digital, Raytheon and Apollo Diamond. He has spent the last 10 years, concentrating on growing single crystal CVD Diamond.

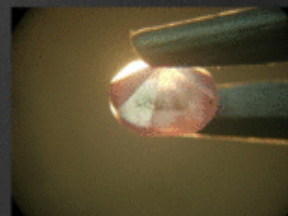
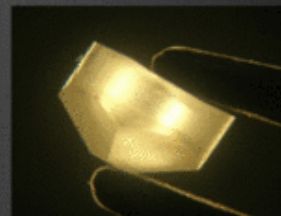
- CVD is a process that is used to produce solid materials that are high-purity and high-performance in quality
- Well understood technology widely employed in the electronics and materials industries
- Most promising technology for producing low-cost and high quality diamond
- Scio patented CVD Single Crystal > 1mm thick
  - Lowers stress in the crystal lattice which leads to greater strength and hardness for industrial use
  - Produces low nitrogen Type IIa crystals (colorless / near colorless) – less than 3% of all mined diamonds qualify as Type IIa diamonds

- Step 1 - Place diamond seeds on pedestal - depressurize chamber
- Step 2 - Inject starting gases into chamber - heat until electrons separate from nuclei, forming plasma
- Step 3 - Freed carbon precipitates out of plasma cloud and is deposited on wafer seeds
- Step 4 - Wafer seeds gradually become diamond crystals
- Step 5 - Remove diamond crystals. Slice and shape for use in commercial and gemstone applications



- SCIO designed reactors produce 7 to 10 times more diamond than the competitors
- Growth of Scio CVD can monitored and controlled during growth cycle
- Scio CVD has greater thickness potential due to single growth process
- Scio diamond surface area is significantly greater than HPHT
- Expected breakeven on capital investment per reactor is less than 18 months

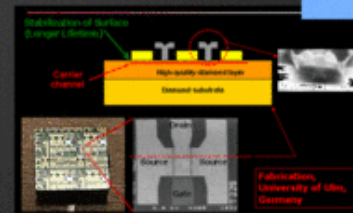
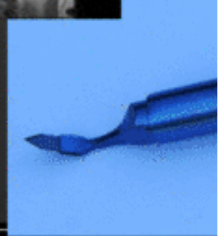
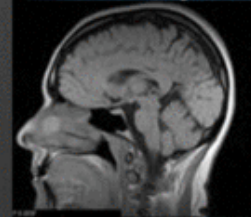
- Process to grow single crystal diamond of superior quality, strength and beauty
- Scalable process – can be expanded and replicated quickly and has a low return on capital threshold
- Highest rate of productive growth in the world
- Significant and growing intellectual property portfolio:
  - 23 U.S. patents, 8 foreign patents
  - 16 U.S. and 10 foreign patent applications in-process
- Create diamonds identical to mined diamond



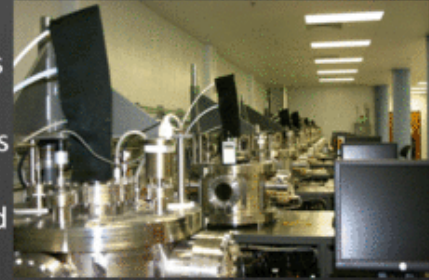




- Current Applications - Precision Cutting
  - Signed multi-million dollar deal for cutter blades with a South Korean tool manufacturer and been in business for 20+ years
  - Potential to reach \$350K monthly run rate
- Future Applications
  - Semiconductor Substrate / Quantum Computing
  - Scalpel – Laser Scalpel
  - Molecular Resolution MRI
  - Water Purification
  - High Power Laser & Other Defense and Energy Applications

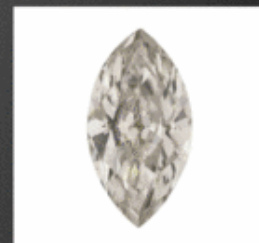


- Seeking to improve reactor yields through productivity enhancements:
  - Currently – S3460 Technology (4 x 4 mm seeds) – 120 units of product in 7 days
  - Spring 2013 – S3721 Technology (7 x 7 mm seeds) – 192 units of product in 7 days
  - Fall 2013 – S31016 Technology (10 x 10 mm seeds) - 252 units of product in 7 days
  - 2014 Opportunities: Mosaic Technology (flexible, larger-sized seeds) & 4" grower platform
- Expand current 10 reactors to 20 reactors
  - \$700k estimated
  - cost per machine = \$7M
  -



	Technology	Estimated Cutter Blade Production	Estimated Annual Revenues	Potential Gross Margin
<b>10 Reactors</b>	S3460 (4 x 4 mm seeds)	~42K	~ \$4.2	~ 35%
	S3721 (7 x 7 mm seeds)	~67K	~ \$6.7	~49%
	S31016 (10 x 10 mm seeds)	~88K	~ \$8.8	~ 54%
<b>20 Reactors</b>	S31016 (10 x 10 mm seeds)	~176K	~ \$17.6	~ 58%

- Scio-created gemstones are real diamond
  - Grown in a environmentally clean reactor instead of the earth
- Features of Scio-created diamond gemstones
  - Perfection and Scalability – stones of same size and color
  - Colorless and Pink diamond capability
  - Environmentally friendly alternative to mined diamonds
  - No “conflict diamond” concerns
- Gem market still in development stage



“Recently in New York Laboratory, we tested a 2.16 ct. CVD lab-grown diamond from Scio Diamond Technology Corporation. This marquise-cut 2.16 ct diamond (13.42 x 6.73 x 3.94 mm) is the largest CVD synthetic diamond tested so far in GIA laboratories. Testing of a large CVD diamond with good gem quality like this one reconfirmed the rapid improvement of lab-grown technology. It is foreseeable that more CVD diamonds with better quality will get into the jewelry industry.” GIA March 2013



- Use current formulas for enhanced single crystal white and pinks
- Use proven formulas for pure colorless growth
- Prime sizes .50 – 1.25 carats – all fine grades
- Market – Distributors and major jewelers in the rough
- Revenue is expected to be accretive to commercial gross margins
- Sample economics of gemstone production with 10 growers:



Stone Size (Carats)	Estimate # of Stones Produced	Estimated Revenues	Potential Gross Margin
0.50	~ 1,556	~ \$2,448	~ 55%
0.75	~ 916	~ \$2,676	~ 65%
1.00	~ 734	~ \$2,114	~ 53%
1.25	~ 498	~ \$1,810	~ 55%
<b>ANNUAL TOTAL</b>	~ 3,704	~ \$9,047	~ 58%

- Continue development of sustainable commercial applications for mass production of high quality single crystal diamond targeting commercial and gemstone markets
- Anticipating mass production by advancing seed size from 4mm to 10mm by Fall 2013, an increase of 110%
- Seeking to double grow reactors to 20
- Fixed corporate overhead per year \$1.6M
- High gross margins and incremental revenue flows to bottom line
- Looking to exploit gemstone opportunities
- Long term objective is to be the world leader in the production of high-value added diamond material

# Appendix

Capital Structure as of Dec-31-2012	
Equity	Shares (000's)
<b>Common Share - Issued &amp; Outstanding</b>	44,242
<b>Warrants:</b>	
- \$0.70 expiring in 2017	445
- \$1.60 expiring in 2015	<u>4,891</u>
	5,336
<b>Options:</b>	
- Exercisable @ 12/31/12 - W.A. \$0.70	1,769
- Unexercisable @ 12/31/12 - W.A. \$1.04	<u>3,324</u>
	5,093
<b>Fully Diluted Shares @ 12/31/12</b>	54,671
<b>Restricted Shareholdings:</b>	
- 144i Restrictions @ 12/31/12	22,177
- Subject to Offering restrictions until 8/2013	<u>16,900</u>
	39,077
<b>DEBT</b>	
NONE	

- 1<sup>st</sup> to produce CVD single crystal diamond plates
- 1<sup>st</sup> to produce CVD grown diamond gemstones
- Built manufacturing model to guide research programs
- Established the relationship between impurities and color in gemstones and optics
- D&B diamond growers enabling economic growth of diamonds
- Wrote computer code enabling automated manufacturing
- Established Quality protocols diamond growth
- Established initial pilot manufacturing facility
- Established as recognized brand as "Apollo"
- Began internet diamond sales
- Produced semiconductor grade diamond for H switches
- Demonstrated diamond transistor in JV with University of Ulm
- Produced infrared windows for medical devices
- Produced next generation scalpel blades
- Produced Quantum computing grade diamond
- Provided diamond for R&D HP and Harvard
- Manufacturing techniques for nanowires w/Harvard
- 1<sup>st</sup> one inch square single crystal diamond wafer
- Produced gemstones and optics on large wafers
- Certain assets and IP acquired by Scio Diamond
- Relocated facilities to SC, driven by cost reduction and incentives
- Began production in July of 2012
- Produced over 15,000 carats of diamond by March 2013



Sci diamond is indistinguishable from high quality naturally-mined diamond

(1) Sci diamond may be superior to natural diamond in these categories

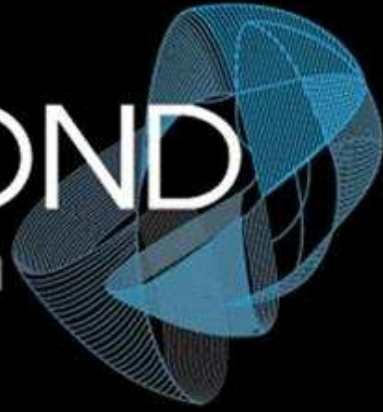
Diamond Characteristic	Sci Diamond	High Quality Naturally - Occurring Diamond	Difference
Color	Colorless, near-colorless, fancy	varies	none
Clarity	IF – VVS	varies	none <sup>(1)</sup>
Size	varies	varies	none <sup>(1)</sup>
Color Zoning	none	none	none
Metallic Inclusions	none	none	none
Zoned Fluorescence	none	none	none
Artifacts	none	none	none
Magnetism	none	none	none
Extreme Hardness	90 GPa	90 GPa	none
Thermal Conductivity	$2 \times 10^3$ W/m/K	$2 \times 10^3$ W/m/K	none <sup>(1)</sup>
Thermal Expansion	$0.8 \times 10^{-6}$ K	$0.8 \times 10^{-6}$ K	none
Optical Transparency	Deep UV to far IR	Deep UV to far IR	none <sup>(1)</sup>
Electrical Resistivity	$10^{16}$ Ohm-cm	$10^{16}$ Ohm-cm	none <sup>(1)</sup>
Compressibility	$8.3 \times 10^{-13}$ m <sup>2</sup> /N	$8.3 \times 10^{-13}$ m <sup>2</sup> /N	none
Bulk Modulus	$1.2 \times 10^{12}$ N/m <sup>2</sup>	$1.2 \times 10^{12}$ N/m <sup>2</sup>	none

Patent	Country
A Method of Processing the Diamond and a Medical Device Utilizing a Diamond Semiconductor	China
A Single Crystal Diamond Having 12C, 13C and Phosphorous	USA
Boron-Doped Diamond Semiconductor	USA
Detection of Chemical Vapor Deposition Grown Diamond	USA
Diamond Heat Sink in a Laser	USA
Diamond Medical Devices	USA
Enhanced Diamond Polishing	USA
Gallium Nitride Light Emitting Devices on Diamond	USA (2)
Gemstone Production from CVD Diamond Plate	USA
Grown Diamond Mosaic Separation	USA
Method of Growing Single Crystal Diamond in a Plasma Reactor	USA
Method of Forming a Waveguide in Diamond	USA (2)
Method of Forming an N-Type Doped Single Crystal Diamond	USA
Method of Growing Boron Doped Single Crystal Diamond in a Plasma Reactor	USA
Retail Compatible Detection of CVD Grown Diamond	USA (2)
Single Crystal Diamond Tool	USA
Structures Formed in Diamond	USA, China, S. Africa
System and Method for Producing Synthetic Diamond	Australia, Canada, USA (3)
Tunable CVD Diamond Structures	Canada, India, S. Africa, USA

Patent	Country
Angle Cut on CVD Diamond	USA
Boron Doped Single Crystal Diamond Electrochemical Synthesis Electrode	USA
Boron Doped Diamond Semiconductor	USA
Carbon Grit	USA
Detection of Chemical Vapor Deposition Grown Diamond	USA
Diamond Heat Sink in a Laser	USA
Diamond Identifier	USA
Diamond Medical Devices	USA
Diamond Structure Separation	USA
Gemstone Production from CVD Diamond Plate	USA
Method of Growing a Single Crystal Diamond	USA
Separation of Grown Diamond from Diamond Seeds Mosaic	Europe, Japan
Single Crystal Diamond Electrochemical Electrode	Europe, India, Japan, USA
Structures Formed in Diamond	Australia, India, Japan
Synthetic Diamond Having Alternating Layers with Different Concentrations of Impurities	USA
System and Method for Producing Synthetic Diamond	Japan(2), USA(2)
Tunable CVD Diamond Structures	USA

# SCIODIAMOND

Technology Corporation



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