UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934
For The Fiscal Year Ended December 31, 2019

Commission File Number: 0-31641

SCI ENGINEERED MATERIALS, INC.

(Exact name of registrant as specified in its charter)

Ohio	**31-1210318**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

2839 Charter Street
Columbus, Ohio 43228
(Address of principal executive offices)
Registrant's telephone number, including area code: **(614) 486-0261**

Securities registered pursuant to Section 12(b) of the Act:	None
Securities registered pursuant to Section 12(g) of the Act:	Common Stock, without par value (Title of Class) OTCQB (Name of each exchange on which registered)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Exchange Act. Yes ☐ No ☒

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (section 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer", "accelerated filer", "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act. Large accelerated filer ☐ Accelerated filer ☐ Non-accelerated filer ☒ Smaller reporting company ☒ Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The aggregate market value of the Registrant's common equity held by non-affiliates of the Registrant was approximately $8,654,489 on June 30, 2019**.** For purposes of this disclosure, shares of common stock held by persons who hold more than 10% of the outstanding shares of common stock and shares held by executive officers and directors of the registrant have been excluded because such persons may be deemed to be affiliates. This determination of executive officer or affiliate status is not necessarily a conclusive determination for other purposes. There were 4,370,519 shares of the Registrant's Common Stock outstanding on January 31, 2020.

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, without par value	SCIA	OTCQB

Documents Incorporated By Reference

Portions of our Proxy Statement for the 2020 Annual Meeting of Stockholders are incorporated by reference in Part III.

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Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and Section 26A of the Securities Act of 1933, as amended. The words "anticipate," "believe," "expect," "estimate," and "project" and similar words and expressions identify forward-looking statements, which speak only as of the date hereof. Investors are cautioned that such statements involve risks and uncertainties that could cause actual results to differ materially from historical or anticipated results due to many factors, including, but not limited to, the factors discussed in "Risk Factors." The Company undertakes no obligation to publicly update or revise any forward-looking statements.

PART I

ITEM 1. BUSINESS

Introduction

SCI Engineered Materials, Inc. ("SCI", "we" or the "Company"), an Ohio corporation, was incorporated in 1987. We operate in one segment as a global supplier and manufacturer of advanced materials for Physical Vapor Deposition ("PVD") Thin Film Applications. We are focused on markets within the PVD industry including Photonics, Thin Film Solar, Glass, and Transparent Electronics. Substantially all of our revenues are generated from customers with multi-national operations. Through collaboration with end users and Original Equipment Manufacturers the Company develops innovative customized solutions enabling commercial success.

History of the Company

The late Dr. Edward Funk, Sc.D., and his late wife Ingeborg founded SCI in 1987. Dr. Funk, formerly a Professor of Metallurgy at The Ohio State University and a successful entrepreneur, envisioned significant market potential for the then newly discovered High Temperature Superconductivity ("HTS") material YBCO (T_c of 90^o K). Our first product was a 99.999% pure, co-precipitated YBCO 1-2-3 powder. Over the years we expanded our product line by adding other High T_c Powders, sintered shapes, single crystal substrates, and non-superconducting sputtering targets. At this time, we are not pursuing this market but these early years of development is the foundation on which our material science experience is built.

We opened a subdivision, Target Materials Inc. ("TMI"), in 1991 to supply the increasing worldwide demand for sputtering and laser ablation targets. We became a full-service manufacturer of high-performance thin film materials, providing a wide selection of metals, ceramics, and alloys for sputtering targets, evaporation sources, and other PVD applications. We served the Research and Development market as well as the Industrial and Decorative Coating markets. During this time, we began to manufacture targets for the photovoltaic, flat panel display, and semiconductor industries.

SCI and TMI were merged in 2002. We continued to manufacture complex ceramic, metal, and alloy products for the photonic, photovoltaic, media storage, flat panel display, and semiconductor industries.

In January 2017, we received ISO 9001:2015 registration, an internationally recognized quality standard. We received ISO 9001:2008 registration in April 2010 and prior to April 2010 we were ISO 9001:2000 registered.

Throughout much of our history, we have conducted funded research primarily under grants from entities such as the Department of Energy, the National Science Foundation, NASA, and the Ohio Development Services Agency. These activities are generally limited to funded research that is consistent with our focus on near term commercial applications in our principal markets.

For more than three decades we have been developing considerable expertise in the development and manufacturing ramp-up of innovative materials, such as Transparent Conductive Oxides (TCO) for Thin Film Solar (TFS) applications and targets for thin film batteries. We have made considerable resource investments in the TFS industry and a number of customers have adopted our products. The Company is committed to finding further growth opportunities that can benefit from this expertise. Today, we serve a diverse base of domestic and multi-national corporations, universities, and leading research institutions. We actively seek to partner with organizations to provide solutions for difficult material challenges.

Business

We are a supplier of materials to the PVD industry. Our customers need our materials to produce nano layers of metals and oxides for advanced material systems. Applications for PVD coatings range from everyday items to complex computer processors. Every day applications include transparent anti-scratch coatings on eyeglasses, coatings on kitchen faucets, as well as low emissivity glass for household windows. More technically advanced applications for our products include semiconductors, thin film solar, flat panel displays and photonics.

We continue to pursue niche opportunities where our core competencies give us an advantage and that fit our manufacturing capabilities. This disciplined approach enables us to focus on those opportunities that are the best fit for our capabilities and also offer the greatest long-term return. Considerations include our core strengths, resource requirements, and time-to-market.

Photonics currently represents the largest market for our materials. Our customers are continually identifying new materials that improve the utility of optical coatings. This includes improvements in their ability to focus, filter or reflect light, all of which increase the potential demand for the types and amounts of products we sell in this market. Photonic applications continue to expand as new methods are found to manipulate light waves to enhance the various applications for light.

We have developed products for the TFS market. We are well positioned in the TFS area having supplied materials to that market for over twenty years from the early stages of TFS development. We continue to increase our visibility in the global arena by attending various trade shows targeted at the solar market. Our marketing and sales strategy includes increased direct contact with customers and entry into contiguous markets. We have representatives in China, Korea, and Taiwan. China is the largest market for our TFS products.

We continued to develop TCO systems for the solar and glass markets and added domestic and international customers for these products. The solar industry is projected to have strong growth for the next few decades. The TFS market, which we serve, is expected to gain market share beyond traditional applications to include, but not limited to, roof applications with low weight flexible products, vehicles and mobile devices during that period. Given current and future market opportunities, we continue to invest in research and development, marketing, and sales.

In 2018, we began to supply target materials to the roll to roll coating industry. Roll to roll PVD coating is an emerging market in which intermediate manufacturers use our advanced materials to coat flexible substrates for a wide range of applications. In a roll to roll coating system, multiple layers of different materials can be deposited over large areas on flexible substrates without costly down time associated with breaking vacuum. These coated substrates can be used as standalone products in high volume consumer goods or can be laminated into electronic and optical components such as solar panels, architectural glass and displays. Our rotatable bonding technology, compounded with our material development capabilities, position us well in this emerging market for potential growth.

Set up of a bonding facility has been completed pursuant to a joint agreement with publicly owned Konfoong Materials International Co., LTD (KFMI). KFMI will bond rotatable thin film solar Aluminum Zinc Oxide cylinders produced in Columbus, Ohio for the majority of our Chinese thin film solar customers. This arrangement is intended to enable us to provide an advantage to thin film solar customers in China and to also enhance our access to this growing market. We will continue to produce the ceramic portion of the end product in our facility in Columbus. Our products for photonics and other thin film solar customers will continue to be bonded at our manufacturing facility in Columbus. We will continue to exercise control over our trade secrets and proprietary property through assiduous scrutiny of our Intellectual Property.

We continue to invest in developing new products for all current markets with emphasis on accelerating time to market.

For the year ended December 31, 2019, we had total revenue of $12,950,387. This was an increase of $1,588,812, or 14% compared to 2018. The increase was primarily due to increased volume and pricing in our photonics market.

In 2018, revenue benefited from our sales to the TFS market which declined in 2019 due to increased volatility in the global solar market, including disruptive factors that affected customer behavior. Consequently, our largest customer represented approximately 72% of total revenues in 2019 and 36% in 2018.

Marketing and Sales

Europe and Asia, as well as the Americas, have high demand for sputtering targets. We continue to expand our global marketing reach. We use various distribution channels to reach end user markets, including direct sales by our employees, independent manufacturers' representatives in the United States, and independent distributors and manufacturers' representatives for international markets. We have manufacturer's representatives in the Chinese, Korean and Taiwanese markets. Also, the internet provides tremendous reach for new customers to be able to identify us as a source of their product needs.

Our corporate website is www.sciengineeredmaterials.com. The website is designed to serve customers, suppliers and investors with additional information in an easy to use format and includes expanded mobile access. There are also social media components, including LinkedIn® and Facebook®, to enhance the Company's visibility and communication with all stakeholders. For customers and suppliers, there is expanded information about our product focus as well as a library of detailed product data sheets that continues to be updated. Investors can access current and archived information about the Company utilizing multiple electronic platforms.

Ceramics

We are capable of producing ceramic powders via several different processing techniques including solid state and precipitation. Ceramic targets can also be produced in a variety of ways depending on the end user applications. Production techniques include sintering, cold isostatic pressing and hot pressing.

Most of our products are manufactured from component chemicals and metal oxides supplied by various vendors. If we suddenly lost the services of a supplier, there could be a disruption in our manufacturing process until the supplier was replaced. We have identified several firms as potential back-up suppliers that would be capable of supplying these materials to us as necessary.

Metals

In addition to the ceramic targets previously mentioned, we produce metal sputtering targets and backing plates. The targets are often bonded to the backing plates for application in the PVD industry. These targets can be produced by casting, hot pressing and machining of metals and metal alloys depending on the application.

Applications for metal targets are highly varied from applying decorative coatings for end uses such as sink faucets to the production of various electronic, photonic and semiconductor products.

We purchase various metals of reasonable high purity (often above 99.9%) for our applications. We are not dependent on a single source for these metals and do not believe losing a vendor would materially affect our business.

We have continually added production processes and testing equipment to enable us to manufacture and qualify many product compositions that can be used as PVD materials.

Competition

We have a number of domestic and international competitors in both the ceramic and metal fields, many of whom have resources far in excess of our resources. Tosoh, Materion Corporation and Kurt Lesker are competing suppliers in regard to targets.

Suppliers

Principal suppliers in 2019 were Johnson Matthey, Six Nine Metals and Silicon-HQ. In every case, we have established alternate vendors that can be used to ensure availability of required materials. As volume grows, we may enter into alliances or purchasing contracts with these or other vendors.

Research and Development

We are developing sputtering targets for transparent electronic applications, which could be used to produce transparent thin film transistors via PVD processing. We have ongoing development for product improvements and new Transparent Conductive Oxide for Thin Film Solar and wide area coating applications. Much of the development for these new products is based on doping zinc oxide (ZnO). We have developed considerable expertise working with ZnO from our aluminum zinc oxide (AZO) development. We are also developing a dielectric material for semiconductor applications. We focus our research and development efforts in areas that build on our core competencies.

We are working with customers through product trials and qualifications. We continue to invest in developing new products for all of our markets including transparent conductive oxide systems for the thin film solar and display markets as well as with our transparent electronic products.

We have new materials under development that may replace the Cadmium Sulfide buffer layer in CIGS solar cells. These materials were tested at Case Western Reserve University and the results support the use of our innovative material in thin film solar applications that could lead to higher efficiencies.

We may seek funded research opportunities within our core competencies that maintain and expand technical understanding within our company.

We have certain proprietary knowledge and trade secrets related to the manufacture of metal and metal oxide PVD materials. This includes specific patents directly related to our products and market focus (see Intellectual Property section below).

New Product Initiatives

We are committed to the expansion of our core competencies into growth areas through continued exploration of our current well-established customer relationships and other burgeoning markets. We continue to develop TCO target materials for the Thin Film Solar market in partnership with both original equipment manufacturers and Thin Film Solar Cell panel fabricators. A combination of Third Frontier grants and loans provided by the Ohio Development Services Agency and the Ohio Air Quality Development Authority enabled us to accelerate both our development of new products and expanding our manufacturing capacity to meet demands in an evolving marketplace. In addition, we have developed a Zinc Magnesium Oxide material that may be used as a buffer layer material in Copper Indium Gallium Diselenide (CIGS) solar cells. We are also exploring material applications in differing manufacturing areas that can capitalize on our expertise and industry relationships.

Our research and development team includes a Ph.D. with a degree in Material Science. This knowledge base is essential for our products to be successful. The applications in which we are involved require a deeper understanding than only the material properties. Our team provides knowledge in the areas of optical and electrical properties in these applications.

Intellectual Property

Our patent titled "Process for the removal of contaminants from sputtering target substrates" (US patent No. 10,138,545 B2) was issued on November 27, 2018. This provides a process for the removal of contaminants on a spent sputtering target used in Plasma Vapor Deposition.

We have the rights to multiple patent applications and any subsequent patents for technology related to the application of Zinc Oxide based Transparent Conductive Oxide in Displays. Our patent titled "Display having a transparent conductive oxide layer comprising metal doped zinc oxide applied by sputtering" (US patent No. 9,927,667) was issued on March 27, 2018. The transparent conductive oxides (TCOs) we developed in this patent have excellent electro-optical performance, high transmittance, high conductivity and good chemical resistance. This patent has various applications that include LCDs, micro LED, OLED, smart windows and mirrors, AR/VR goggles, e-papers, and wearable electronics, and a corresponding application is pending in Sweden. Our clients, in relevant applications, are entitled to use the patent number when referring to the devices covered by the patent and benefit from it. We believe the TCOs claimed and protected in the patent have wide and innovative applications which can put SCI in a unique position in the market as well as bring us additional business opportunities.

We also have an additional Provisional patent application relating to specific technology that protects our processes used in achieving superior bonding in planar and rotatable targets. We intend to file a regular application claiming priority to this application in a timely manner to claim rights in the U.S. and other jurisdictions.

We have received a patent for Fine-Particle Bi-Sr-Ca-Cu-O Having High Phase Purity made by a Chemical Precipitation and Low-Pressure Calcination method from the United States Patent and Trademark Office. We also have received a patent for a process to join two individual, strongly linked super-conductors utilizing a melt processing technique.

In the future, we may submit additional patent applications covering various inventions which have been developed by us. Because the publication of U.S. patent applications can be delayed for up to one year, they tend to lag behind actual discoveries and we may not be the first creator of inventions covered by pending patent applications or the first to file patent applications for such inventions. Additionally, other parties may independently develop similar technologies, duplicate our technologies or, if patents are issued to us or rights licensed by us, design around the patented aspects of any technologies we developed or licensed.

We rely on a combination of patent and trademark law, license agreements, internal procedures and nondisclosure agreements to protect our intellectual property, which may be invalidated, circumvented or challenged. In addition, the laws of some foreign countries in which our products may be produced or sold may not protect our intellectual property rights to the same extent as the laws of the United States.

Employees

We had 22 and 26 full-time employees as of December 31, 2019 and 2018, respectively. One of these employees holds a PhD in Material Science. We have never experienced a work stoppage and consider our relations with employees to be good. The employees do not have a bargaining unit.

Environmental Matters

We handle all materials according to federal, state and local environmental regulations and include Safety Data Sheets (SDS) with all shipments to customers. We maintain a collection of SDS sheets for all raw materials used in the manufacture of products and maintenance of equipment and ensure that all personnel follow the handling instructions contained in the SDS for each material. We contract with a reputable, fully permitted hazardous waste disposal company to dispose of the small amount of hazardous waste generated.

Collections and Write-offs

We collected receivables in an average of 35 days in 2019. We have occasionally written-off negligible amounts of accounts receivable as uncollectible. There were none in 2019 and 2018. We consider credit management critical to our success.

Seasonal Trends

We have not experienced and do not expect to experience seasonal trends in future business operations.

ITEM 1A. RISK FACTORS

We operate in a dynamic and rapidly changing environment that involves numerous risks and uncertainties. Certain factors may have a material adverse effect on our business, prospects, financial condition and results of operations, and you should carefully consider them. Accordingly, in evaluating our business, we encourage you to consider the following discussion of risk factors, in its entirety, in addition to other information contained in this Annual Report on Form 10-K and our other public filings with the Securities and Exchange Commission (the "SEC"). Other events that we do not currently anticipate or that we currently deem immaterial may also affect our business, prospects, financial condition and results of operations.

We desire to take advantage of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. The following factors have affected or could affect actual results and could cause such results to differ materially from those expressed in any forward-looking statements made. Investors should consider carefully the following risks and speculative factors inherent in and affecting the business of SCI and an investment in our common stock.

Risks Relating to the Company

We have had operating losses in the past and may incur losses in the future.

For the year ended December 31, 2019 we had income from operations of $330,858 compared to $934,867 for the year ended December 31, 2018. We have had operating losses in the past and we provide no assurances that we will be able to operate profitably in the future. We continue to invest in developing new products for all of our markets including transparent conductive oxide systems within the thin film solar industry. We also have ongoing development efforts with our transparent electronic products. These efforts include accelerating time to market for those products and involve ongoing research and development expense.

During 2019 we reduced our accumulated deficit to $9,242,204 at December 31, 2019. Management's plans with respect to the objective of maintaining and improving liquidity and profitability in future years include continuing to expand our business in current markets and into new markets for our products, developing new products and increasing our revenue and presence in those markets. Management believes the actions that began during the last few years and continue today provide the opportunity for maintaining and improving liquidity and profitability. However, no assurances are made that such actions will result in sustained profitability.

A substantial portion of our sales has been dependent upon certain principal customers, the loss of whom could materially negatively affect the Company's total sales.

Our top two customers account for approximately 82% of our net sales for the fiscal year ended December 31, 2019. Although these customers have been on-going major customers of the Company for several years, we do not have written agreements with these customers that require any minimum purchase obligations and the customers could stop buying the Company's products at any time and for any reason. A reduction, delay or cancellation of orders from these customers or the loss of these customers could significantly reduce our future revenues and profits. We cannot provide assurance that these customers or any of our other current customers will continue to place orders, that orders by existing customers will continue at current or historical levels or that we will be able to obtain orders from new customers.

We have limited marketing and sales capabilities.

We continue to develop our marketing in Asia. We have a manufacturing representative for the Korean market and others for the Taiwanese and Chinese markets. We must continue to develop appropriate marketing, sales, technical, customer service and distribution capabilities, or enter into agreements with third parties to provide these services to successfully market our products. A failure to develop these capabilities or obtain third-party agreements could adversely affect us.

Our success depends on our ability to retain key management personnel.

Our success depends in large part on our ability to attract and retain highly qualified management, administrative, manufacturing, sales, and research and development personnel. Due to the specialized nature of our business, it may be difficult to locate and hire qualified personnel. The loss of services of one of our executive officers or other key personnel, or our failure to attract and retain other executive officers or key personnel could have a material adverse effect on our business, operating results and financial condition. Jeremy Young was named President and chief executive officer during 2019 and has an employment agreement with the Company that contains non-competition provisions as well as severance payments. Mr. Young has been with the Company for more than fourteen years. Our former President and chief executive officer, Dan Rooney, retired in June 2019. All other key management personnel have entered into non-competition agreements with the Company. Although we have been successful in planning for and retaining highly capable and qualified successor management in the past, there can be no assurance that we will be able to do so in the future.

Competition for employees is intense, and we may not be able to attract and retain the qualified and skilled employees needed to support our business.

We believe our success depends on the efforts and talent of our employees, including technical and skilled mechanical personnel. Our future success depends on our continued ability to attract, develop, motivate and retain qualified and skilled employees. Competition for highly skilled technical, risk management and financial personnel is extremely intense. We may not be able to hire and retain these personnel at compensation levels consistent with our existing compensation and salary structure. Some of the companies with which we compete for experienced employees have greater resources than we have and may be able to offer more attractive terms of employment.

In addition, we invest significant time and expense in training our employees, which increases their value to competitors who may seek to recruit them. We have recently begun to implement some new employee retention strategies. If we fail to retain our employees, we could incur significant expenses in hiring and training new employees, and the quality of our services and our ability to serve our customers could decline, resulting in a material adverse effect to our business.

Changes in the strategies of key trade customers may adversely affect our business.

Our products are sold in a highly competitive global marketplace which continues to experience increased concentration. We may be negatively affected by changes in the strategies of our trade customers, such as inventory de-stocking, limitations on access to shelf space, delisting of our products, and other conditions.

Disaster and other adverse events may seriously harm our business.

Our manufacturing facility may suffer harm as a result of natural or man-made disasters such as storms, earthquakes, hurricanes, tornadoes, floods, fires, terrorist attacks and other conditions. Such events may disrupt our operations, harm our operations and employees, severely damage or destroy our facility, harm our business, reputation and financial performance, or otherwise cause our business to suffer in ways that cannot currently be predicted.

Our competitors have far greater financial and other resources than us.

The market for PVD materials is a substantial market with significant competition in both ceramic and metal materials. While we believe that our products enjoy certain competitive advantages in design, function, quality, and availability, considerable competition exists from well-established firms such as Materion Corporation, Kurt Lesker, and Tosoh, all of which have more financial resources than us. We cannot provide assurance that developments by others will not render our products or technologies obsolete or less competitive.

Additional development of our products may be necessary due to uncertainty regarding development of markets.

Some of our products are in the early stages of commercialization and we believe that it will be several years before these products will have significant commercial end-use applications, and that significant development work may be necessary to improve the commercial feasibility and acceptance of these products. There can be no assurance that we will be able to commercialize any of the products currently under development.

If Thin Film Solar technology is not suitable for widespread adoption or takes longer to develop than we anticipate, our sales may not be sufficient to achieve profitability.

The Thin Film Solar energy market that we supply is at a relatively early stage of development, and the extent to which thin film solar modules and flexible products will be widely adopted is uncertain. Although the industry has experienced rapid growth, overcapacity in the market previously created difficulties for some of our current and potential customers in the Thin Film Solar industry. Adoption of our products by specific areas of this market is important to our long-term growth. If the technology proves unsuitable for widespread adoption at economically attractive rates of return or if demand for Thin Film Solar modules fails to develop sufficiently or takes longer to develop than we anticipate, we may be unable to grow our business in that market or generate sufficient sales to achieve profitability.

Our failure to comply with our debt covenants could have a material adverse effect on our business, financial condition or results of operations.

Our debt agreements contain certain covenants. A breach of any of these covenants could result in a default under the applicable agreement. In the past our lenders have granted us a waiver or amendment when we sought relief from covenants. If a default were to occur, we would likely seek a waiver of that default, attempt to reset the covenant, or refinance the instrument and accompanying obligations. If we were unable to obtain this relief, the default could result in the acceleration of the total due related to that debt obligation. If a default were to occur, we may not be able to pay our debts or borrow sufficient funds to refinance them. Any of these events, if they occur, could materially adversely affect our results of operations, financial condition, and cash flows. We retired two notes during 2018 that contained covenants.

A lack of credit and/or limited financing availability to the Company, its vendors, or end users could adversely affect our business.

Our liquidity and financial condition could be materially and adversely affected if our ability to borrow money from new or existing lenders to finance our operations is reduced or eliminated. Similar adverse effects may also result if we realize reduced credit availability from trade creditors. Additionally, many of our customers require availability of financing to facilitate the purchase of our products. As a result, a continuing period of reduced credit availability in the marketplace could have adverse effects on our business.

Our business requires us to make capital expenditures to maintain and improve our facilities.

Our facilities sometimes require capital expenditures to address ongoing required maintenance and upgrade our capabilities. In addition, we often are required to make significant capital expenditures in order to satisfy customer requirements and to produce newly developed products.

Our business could be negatively impacted by cyber and other security threats or disruptions.

We face various cyber and other security threats, including attempts to gain unauthorized access to sensitive information and networks; insider threats; threats to the safety of our directors, officers and employees; threats to the security of our facilities and infrastructure; and threats from terrorist acts or other acts of aggression. Our customers and vendors face similar threats. Although we utilize various procedures and controls to monitor and mitigate the risk of these threats, there can be no assurance that these procedures and controls will be sufficient. Our security measures may also be breached due to employee error, malfeasance, system errors or vulnerabilities, or otherwise. Additionally, outside parties may attempt to fraudulently induce employees, users, or customers to disclose sensitive information in order to gain access to our data or our user's or customer's data. These threats could lead to losses of sensitive information or capabilities, harm to personnel, infrastructure or products, and/or damage to our reputation as well as our vendor's ability to perform on our contracts.

Cyber threats are evolving and include, but are not limited to, malicious software, destructive malware, attempts to gain unauthorized access to data, disruption or denial of service attacks, and other electronic security breaches that could lead to disruptions in critical systems, unauthorized release of confidential, personal or otherwise protected information (ours or that of our employees, customers or vendors), and corruption of data, networks or systems.

The impact of these factors is difficult to predict, but one or more of them could result in the loss of information or capabilities, harm to individuals or property, damage to our reputation, loss of business, regulatory actions and potential liability, any of which could have a material adverse effect on our financial position, results of operations and/or cash flows.

Risks Related to Our Intellectual Property

Our patents and proprietary rights may not be enforceable.

We rely on a combination of patent and trademark law, license agreements, internal procedures and nondisclosure agreements to protect our intellectual property. These may be invalidated, circumvented or challenged. In addition, the laws of some foreign countries in which our products may be produced or sold may not protect our intellectual property rights to the same extent as the laws of the United States. Our failure to protect our proprietary information could adversely affect us.

Our ability to compete in our markets and to achieve future revenue growth could depend, in significant part, on our ability to protect our proprietary technology and operate without infringing upon the intellectual property rights of others. Late in 2018 we announced plans to begin manufacturing thin film solar products in China under a joint agreement with publicly owned Konfoong Materials International Co., LTD (KFMI). KFMI will bond rotatable thin film solar Aluminum Zinc Oxide cylinders produced in Columbus, Ohio for thin film solar customers in China. Our products for photonics and thin film solar customers in areas other than China will continue to be bonded at our manufacturing facility in Columbus. This is the first time that we have entered into such a relationship in China and the legal regime in China for the protection of intellectual property rights is still at its early stage of development. Intellectual property protection became a national effort in China in 1979 when China adopted its first statute on the protection of trademarks. Since then, China has adopted its Patent Law, Trademark Law and Copyright Law and promulgated related regulations such as Regulation on Computer Software Protection, Regulation on the Protection of Layout Designs of Integrated Circuits and Regulation on Internet Domain Names. China has also acceded to various international treaties and conventions in this area, such as the Paris Convention for the Protection of Industrial Property, Patent Cooperation Treaty, Madrid Agreement and its Protocol Concerning the International Registration of Marks. In addition, when China became a party to the World Trade Organization in 2001, China amended many of its laws and regulations to comply with the Agreement on Trade-Related Aspects of Intellectual Property Rights. Despite many laws and regulations promulgated and other efforts made by China over the years to tighten up its regulation and protection of intellectual property rights, private parties may not enjoy intellectual property rights in China in the same way they do in many Western countries, including the US, and enforcement of such laws and regulations in China have not reached the levels reached in those countries. Both the administrative agencies and the court system in China are not well-equipped to deal with violations or handle the nuances and complexities between compliant technological innovation and non-compliant infringement.

Rights we have to patents and pending patent applications may be challenged.

During 2016 we were granted a federal trademark registration for "SCI Engineered Materials" and during 2015 we were granted a federal trademark for "the Science of Engineered Materials".

Our patent titled "Process for the removal of contaminants from sputtering target substrates" (US patent No. 10,138,545 B2) was issued on November 27, 2018. This provides a process for the removal of contaminants on a spent sputtering target used in Plasma Vapor Deposition.

Our patent titled "Display having a transparent conductive oxide layer comprising metal doped zinc oxide applied by sputtering" (US patent No. 9,927,667) was issued on March 27, 2018. The transparent conductive oxides (TCOs) we developed in this patent have excellent electro-optical performance, high transmittance, high conductivity and good chemical resistance. This patent has various applications that include LCDs, micro LED, OLED, smart windows & mirrors, AR/VR goggles, e-papers, and wearable electronics. Our clients, in relevant applications, are entitled to use the patent number when referring to the devices covered by the patent and benefit from it. We believe the TCOs claimed and protected in the patent have wide and innovative applications which can put SCI in a unique position in the market as well as bring us additional business opportunities.

Because U.S. patent applications are maintained in secret until patents are issued, and because publications of discoveries in the scientific or patent literature tend to lag behind actual discoveries by several months, we may not be the first creator of inventions covered by issued patents or pending patent applications or the first to file patent applications for such inventions. Moreover, other parties may independently develop similar technologies, duplicate our technologies or, if patents are issued to us or rights licensed by us, design around the patented aspects of any technologies we developed or licensed. We may have to participate in interference proceedings declared by the U.S. Patent and Trademark Office to determine the priority of inventions, which could result in substantial costs. Litigation may also be necessary to enforce any patents held by or issued to us or to determine the scope and validity of others' proprietary rights, which could result in substantial costs.

We may be unable to adequately prevent disclosure of trade secrets and other proprietary information.

In order to protect our proprietary and licensed technology and processes, we rely in part on confidentiality agreements with our corporate partners, employees, consultants, manufacturers, outside scientific collaborators and sponsored researchers and other advisors. These agreements may not effectively prevent disclosure of our confidential information and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. In addition, others may independently discover our trade secrets and proprietary information. Failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

The rapid technological changes of our industry may adversely affect us if we do not keep pace with advancing technology.

The PVD market is characterized by rapidly advancing technology. Our success depends on our ability to keep pace with advancing technology and processes and industry standards. We have focused our development efforts on sputtering targets. We intend to continue to develop innovative materials and integrate those advances to the thin film coatings industry and other potential industries. However, our development efforts may be rendered obsolete by research efforts and technological advances made by others, and materials other than those we currently use may prove more advantageous.

Risks Related to Our Common Stock

Our Articles of Incorporation authorize us to issue additional shares of stock.

We are authorized to issue up to 15,000,000 shares of common stock, which may be issued by our Board of Directors for such consideration, as they may consider sufficient without seeking shareholder approval. As of December 31, 2019, we had 4,370,519 shares outstanding and 48,265 shares underlying options that are currently exercisable resulting in 10,581,216 shares of common stock available for issue. The issuance of additional shares of common stock in the future may reduce the proportionate ownership and voting power of current shareholders.

Our Articles of Incorporation authorize us to issue up to 260,000 shares of preferred stock. The issuance of preferred stock in the future could create additional securities which would have dividend and liquidation preferences prior to the outstanding shares of common stock. These provisions could also impede a non-negotiated change in control. As of December 31, 2019, we had 24,152 shares of Series B Preferred Stock issued and outstanding.

We have not paid dividends on our common stock in the past and do not expect to do so in the foreseeable future.

We have never declared or paid cash dividends on our shares of common stock and do not expect to do so in the foreseeable future. We intend to use our future earnings for the growth of our business. As a result, investors must rely on sales of the common stock after price appreciation, which may not occur, as the best way to realize future gains on their investments.

Provisions in our Articles of Incorporation and Code of Regulations provide for indemnification of officers and directors which could require us to divert funds away from our business and operations.

Our Articles of Incorporation and Code of Regulations provide for the indemnification of our officers and directors. We may be required to advance costs incurred by an officer or director to pay judgments, fines and expenses incurred by an officer or director, including reasonable attorneys' fees, as a result of actions or proceedings in which our officers and directors are involved by reason being or having been an officer or director of our company. Funds paid in satisfaction of judgments, fines, and expenses may be funds we need for operation and growth of our business.

Takeover defense provisions in Ohio law and our corporate governance documents may delay or prevent takeover attempts preventing our shareholders from realizing a premium on their stock.

Various provisions of the Ohio corporation laws as well as our corporate governance documents may inhibit changes in control not approved by our Board of Directors and may have the effect of depriving our investors of an opportunity to receive a premium over the prevailing market price of our common stock in the event of an attempted hostile takeover. In addition, the existence of these provisions may adversely affect the market price of our common stock. These provisions include:

- A requirement that a special meeting of the shareholders must be called by our Board of Directors, Chairperson, the President or the holders of shares with voting powers of at least fifty percent (50%);
- Advanced notice requirements for shareholder proposals and nominations; and
- The availability of "blank check preferred stock."

Our Board of Directors can use these and other provisions to prevent, delay or discourage a change in control of the company or a change in our management. Any such delay or prevention of a change in control of management could deter potential acquirers or prevent the completion of a takeover transaction to which our shareholders could receive a substantial premium over the current market price of our common stock, which may in turn limit the price investors might be willing to pay for our common stock.

The market for our common stock is limited, and as such our shareholders may have difficulty reselling their shares when desired or at attractive market prices.

Our stock price, trading volume, and our listing may make it more difficult for our shareholders to resell shares when desired or at attractive prices. In 2001, our stock began trading on The Over the Counter Bulletin Board, now known as the OTC Markets. Our common stock trades in low volumes and at low prices. Some investors view low-priced stocks as unduly speculative and therefore not appropriate candidates for investment. Many institutional investors have internal policies prohibiting the purchase or maintenance of positions in low-priced stocks. This has the effect of limiting the pool of potential purchases of our common stock at present price levels. Shareholders may find greater percentage spreads between bid and asked prices, and more difficulty in completing transactions and higher transaction costs when buying or selling our common stock than they would if our stock were listed on a major stock exchange, such as The New York Stock Exchange or The NASDAQ National Market.

Our common stock has been subject to the Securities and Exchange Commission's "penny stock" regulations, which may limit the liquidity of common stock held by our shareholders.

Our common stock currently trades on the OTC Markets' OTCQB market under the symbol "SCIA". Based on its trading price, our common stock is considered a "penny stock" for purposes of federal securities laws, and therefore has been subject to regulations, which affected the ability of broker-dealers to sell our securities. Broker-dealers who recommend a "penny stock" to persons (other than established customers and accredited investors) must make a special written suitability determination and receive the purchaser's written agreement to a transaction prior to sale.

If penny stock regulations apply to our common stock, it may be difficult to trade the stock because compliance with the regulations can delay and/or preclude certain trading transactions. Broker-dealers may be discouraged from effecting transactions in common stock because of the sales practice and disclosure requirements for penny stock. This could adversely affect the liquidity and/or price of our common stock, and impede the sale of the common stock in the secondary market.

Risks Related to Government Regulation

We are subject to anti-corruption laws in the jurisdictions in which we operate, including anti-corruption laws of China and the Federal Corrupt Practices Act (FCPA). Our failure to comply with these laws could result in penalties which could harm our reputation and have a material adverse effect on our business, results of operations and financial condition.

We are subject to the FCPA, which generally prohibits companies and their intermediaries from making improper payments to foreign officials for the purpose of obtaining or keeping business and/or other benefits, along with various other anticorruption laws. Although we continue to monitor policies and procedures designed to ensure that we, our employees, distributors and other intermediaries comply with the FCPA and other anti-corruption laws to which we are subject, there is no assurance that such policies or procedures will work effectively all of the time or protect us against liability under the FCPA or other laws for actions taken by our employees, distributors and other intermediaries with respect to our business or any businesses that we may acquire. Because of our Chinese manufacturing relationship, we will be encountering more government officials which may pose elevated risks of anti-corruption violations. Our manufacturing and sales activities puts us and our representatives in frequent contact with persons who may be considered “foreign officials” under the FCPA, resulting in an elevated risk of potential FCPA violations. If we are not in compliance with the FCPA and other laws governing the conduct of business with government entities (including local laws), we may be subject to criminal and civil penalties and other remedial measures, which could have an adverse impact on our business, financial condition, results of operations and liquidity. Any investigation of any potential violations of the FCPA or other anticorruption laws by U.S. or foreign authorities could have an adverse impact on our business, financial condition and results of operations.

Environmental compliance costs and liabilities associated with our facility may have a material adverse effect on our business, financial condition, results of operations and prospects.

We are subject to various federal, state and local environmental and health and safety laws and regulations with respect to our operations. These laws and regulations address various matters, including asbestos, fuel oil management, wastewater discharges, air emissions, and hazardous wastes. The costs of complying with these laws and regulations and the penalties for non-compliance can be substantial. For example, with respect to leased property, we may be held liable for costs relating to the investigation and cleanup of our leased property from which there has been a release or threatened release of a regulated material as well as other properties affected by the release. In addition to these costs, which are typically not limited by law or regulation and could exceed the property’s value, we could be liable for certain other costs, including, without limitation, governmental fines and injuries to persons, property or natural resources. Further, some environmental laws create a lien on the contaminated site in favor of the government for damages and the costs it incurs in connection with the contamination. While we are not aware of any potential environmental problems, no assurances are made that such problems and costs associated with them will not arise in the future. If any of our properties were found to violate environmental laws, we may be required to expend significant amounts of time and money to rehabilitate the property, and we may be subject to significant liability. Any environmental compliance costs and liabilities incurred may have a material adverse effect on our business, financial condition, results of operations and growth prospects.

The increasing costs of being a public company may strain our resources and impact our business, financial condition and results of operations.

As a public company, we are subject to reporting requirements of the Securities Exchange Act of 1934, as amended or the Exchange Act, the Sarbanes-Oxley Act of 2002, or the Sarbanes Oxley Act and the 2010 Dodd-Frank Wall Street Reform and Consumer Protection Act, or the Dodd-Frank Act. The Exchange Act requires that we file annual, quarterly and current reports with respect to our business and financial condition. The Sarbanes-Oxley Act requires that we maintain effective disclosure controls and procedures and internal controls for financial reporting. We are required to document and test our internal control procedures in order to satisfy the requirements of Section 404(b) of the Sarbanes-Oxley Act, which requires annual management assessments of the effectiveness of our internal controls over financial reporting. The Dodd-Frank Act requires us to audit our supply chain and report conflict minerals usage.

These requirements may place a strain on our systems and resources in the future and may require us to hire additional accounting and financial staff with the appropriate public company experience and technical accounting knowledge. In addition, the failure to maintain such internal controls could result in us being unable to provide timely and reliable financial information which could potentially subject us to sanctions or investigations by the Securities and Exchange Commission or events could have an adverse effect on our business, financial condition or results of operations. Although we have taken steps to maintain our internal control structure as required by the Exchange Act and the Sarbanes-Oxley Act, we cannot provide any assurances that control deficiencies will not occur in the future.

Regulation from the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act") could adversely affect our business or financial results.

Changes in regulatory requirements, such as the reporting requirements relating to conflict minerals originating in the Democratic Republic of Congo or adjoining countries included in the Dodd-Frank Act, or evolving interpretations of existing regulatory requirements, may result in increased compliance cost, capital expenditures and other financial obligations that could adversely affect our business or financial results. We conducted an analysis of our products and found that the above SEC defined "conflict minerals", which are tantalum, tin, tungsten, and gold (3TG), can be found in our products. Therefore, the products that we manufacture are subject to the reporting obligations of Rule 13p-1.

Despite having conducted a good faith reasonable country of origin inquiry, we concluded that our supply chain remains "DRC conflict undeterminable". We have reached this conclusion because we have been unable to determine the origin of all of the 3TG used. We will continue to work with our suppliers. Should the regulations or our analysis change, it could impact the sourcing of materials that we use to manufacture our products.

If significant tariffs or other restrictions are placed on imports or any related counter-measures are taken by other countries, our revenue and results of operations may be materially harmed.

Import tariffs and/or other mandates imposed by sovereign governments could potentially lead to a trade war with other foreign governments, and could significantly increase the prices on raw materials that are critical to our business. We could be forced to increase prices to our customers or, if unable to do so, result in lowering our gross margin on products sold.

ITEM 1B. UNRESOLVED STAFF COMMENTS.

Not applicable.

ITEM 2. PROPERTIES.

Our office and manufacturing facilities are located at 2839 Charter Street, Columbus, Ohio, where we occupy approximately 32,000 square feet. We moved our operations into this facility in 2004. The lease on the property expires on November 30, 2024.

We are current on all operating lease liabilities.

ITEM 3. LEGAL PROCEEDINGS.

Not applicable.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES.

Market for Common Stock

Our common stock currently trades on the OTC Markets' OTCQB market under the symbol "SCIA".

Based on its trading price, our common stock is considered a "penny stock" for purposes of federal securities laws, and therefore has been subject to certain regulations.

Our common stock is classified as a penny stock and as such, broker dealers trading our common stock will be subject to the disclosure rules for transactions involving penny stocks, which require the broker dealer to determine if purchasing our common stock is suitable for a particular investor. The broker dealer must also obtain the written consent of purchasers to purchase our common stock. The broker dealer must also disclose the best bid and offer prices available for our stock and the price at which the broker dealer last purchased or sold our common stock. These additional burdens imposed on broker dealers may discourage them from effecting transactions in our common stock, which could make it difficult for an investor to sell their shares.

Holders of Record

As of December 31, 2019, there were approximately 250 holders of record of our common stock and 4,370,519 shares outstanding. At December 31, 2019 there were approximately 40 holders of record of Series B Preferred stock and 24,152 shares outstanding.

Dividends

We have never paid cash dividends on our common stock and do not expect to pay any dividends on our common stock in the foreseeable future. We intend to use our future earnings for the growth of the business.

The Board of Directors voted to authorize the payment of a cash dividend on Series B Preferred stock to shareholders of record as of December 31, 2019 to be paid in June 2020.

Equity Compensation Plan Information

The following table sets forth additional information as of December 31, 2019, concerning shares of our common stock that may be issued upon the exercise of options and rights under our existing equity compensation plans and arrangements approved by our shareholders. The information includes the number of shares covered by and the weighted average exercise price of, outstanding options and other rights, and the number of shares remaining available for future grants (excluding the shares to be issued upon exercise of outstanding options and other rights).

	Number of Securities to be issued upon exercise of outstanding options and rights *(a)*	Weighted-average exercise price of outstanding options and rights *(b)*	Number of securities remaining available for issuance under equity compensation plans (excluding securities reflected in column (a)) *(c)*
Equity compensation plans approved by security holders	76,037	$ 1.03	215,285

Equity compensation plans approved by shareholders include our 2011 Stock Option Plan and 2006 Stock Option Plan.

ITEM 6. SELECTED FINANCIAL DATA.

Not applicable.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

Executive Summary

For the year ended December 31, 2019, we had total revenue of $12,950,387. This was an increase of $1,588,812, or 14.0%, compared to 2018. Volume and pricing were higher in our photonics market and volume was significantly lower in our thin film solar market during 2019 due to external factors that adversely impacted order rates and shipments.

Gross profit was $2,208,563 during 2019 compared to $2,904,776 during 2018.

Operating expenses were $1,877,705 and $1,969,909 during 2019 and 2018, respectively. This decrease was primarily due to lower compensation during 2019.

Income applicable to common stock for 2019 and 2018, was $281,199 and $883,717, respectively. The decrease was primarily due to product mix including lower volume in our thin film solar market previously mentioned.

We have new materials under development that may replace the Cadmium Sulfide buffer layer in CIGS solar cells. These materials were tested at Case Western Reserve University and the results support the use of our innovative material in thin film solar applications that could lead to higher efficiencies. We are working with customers through product trials and qualifications to accelerate adoption of these materials. We continue to invest in developing new products for all of our markets including transparent conductive oxide systems for the thin film solar and display markets as well as with our transparent electronic products. Those products involve research and development expense to accelerate time to market.

Set up of a bonding facility has been completed pursuant to a joint agreement with publicly owned Konfoong Materials International Co., LTD (KFMI). KFMI will bond rotatable thin film solar Aluminum Zinc Oxide cylinders produced in Columbus, Ohio for the majority of our Chinese thin film solar customers. This arrangement is intended to enable us to provide an advantage to thin film solar customers in China and to also enhance our access to this growing market. We will continue to produce the ceramic portion of the end product in our facility in Columbus. We will continue to exercise control over our trade secrets and proprietary property through assiduous scrutiny of our Intellectual Property. Our products for photonics and thin film solar customers in areas other than China will continue to be bonded at our manufacturing facility in Columbus.

RESULTS OF OPERATIONS

Year 2019 compared to Year 2018

Revenue

For the year ended December 31, 2019, we had total revenue of $12,950,387. This was an increase of $1,588,812, or 14.0%, compared to 2018. Volume and pricing were higher for our photonics products and volume was lower in our thin film solar market during 2019 due to external factors that adversely impacted order rates and shipments.

Gross Profit

Gross profit was $2,208,563 for 2019 compared to $2,904,776 for 2018. This was a decrease of $696,213, or 24.0%. Gross profit as a percentage of revenue (gross margin) was 17.1% for 2019 compared to 25.6% for 2018. The decrease in gross profit was primarily due to product mix including lower volume in our thin film solar market previously mentioned. A key raw material used in our photonics products was substantially higher in cost in 2019 than the prior year which contributed to higher pass-through pricing and a lower gross margin which impacted the Company's overall gross margin.

General and Administrative Expense

General and administrative expense for 2019 and 2018, was $1,261,958 and $1,256,778, respectively, an increase of 0.4%. This increase included higher insurance expenses of approximately $33,000, and higher professional fees of approximately $16,000. Travel expenses were lower by approximately $27,000 and compensation expenses were lower by approximately $26,000 in 2019 compared to 2018.

Professional Fees

Included in total expense was $218,098 and $201,982 for professional fees during 2019 and 2018, respectively. These ongoing expenses were primarily related to SEC compliance costs for legal, accounting and stockholder relations fees as well as costs associated with the Company's President and CEO transition.

Research and Development Expense

Research and development expense for 2019 was $366,492 compared to $351,999 for 2018, an increase of 4.1%. This increase was principally due to ongoing research as we continue to invest in developing new applications for all of our markets including an innovative buffer layer for thin film solar cells, transparent conductive oxide systems for transparent electronics and thin film solar. These efforts include accelerating time to market for those applications and involve ongoing research and development expense.

Marketing and Sales Expense

Marketing and sales expense was $249,255 and $361,132 for 2019 and 2018, respectively. This was a decrease of $111,877 or 31.0%. This decrease was primarily related to lower compensation of approximately $84,000 due to the allocation of salary expenses related to our President and CEO who previously was also engaged in marketing and sales activities. In addition, commissions were lower by approximately $27,000 compared to 2018. We expect expenses to be higher in 2020 due to an anticipated increase in personnel to fill the marketing and sales duties previously performed by Mr. Young.

Stock Compensation Expense

Included in total expenses were non-cash stock-based compensation costs of $130,009 and $149,399 for 2019 and 2018, respectively. Compensation expense for all stock-based awards is based on the grant date fair value and recognized over the required service (vesting) period. Unrecognized non-cash stock-based compensation expense was $15,762 as of December 31, 2019 and will be recognized through 2023.

Interest

Interest expense was $22,468 and $9,356 for 2019 and 2018, respectively. Interest expense during 2019 was higher due to the new operating lease standard that became effective January 1, 2019.

Income Applicable to Common Stock

Income applicable to common stock for 2019 and 2018, was $281,199 and $883,717, respectively.

Liquidity and Capital Resources

Cash

As of December 31, 2019, cash on hand was $1,828,397. Cash on-hand was $1,802,839 at December 31, 2018.

Working Capital

At December 31, 2019 working capital was $1,992,328 compared to $1,672,036 at December 31, 2018, an increase of $320,292 or 19.2%. Prepaid expenses decreased $507,961 due to orders received late in 2018 and inventory purchased in 2019. Accrued expenses and customer deposits decreased $935,447 due to prepaid orders shipped during 2019 and the timing of accrued compensation at December 31, 2018 which was paid in 2019.

Cash from Operations

Net cash provided by operating activities during 2019, was $532,207 and $1,653,087 during 2018. This included depreciation and amortization of $502,673 and $452,943, and non-cash stock-based compensation costs of $130,009 and $149,399 for 2019 and 2018, respectively. In addition, accrued expenses and customer deposits decreased $935,447 during 2019 and increased $2,906,442 during 2018.

Cash from Investing Activities

Cash of $379,603 was used in investing activities during 2019, which included an in-plant office structured mezzanine in addition to acquisition of production equipment. During 2018, $380,933 was used in investing activities principally for purchases of property and equipment.

Cash from Financing Activities

Cash of $117,846 and $375,730 was used in financing activities for principal payments to third parties for finance lease obligations and notes payable during 2019 and 2018, respectively. A dividend payment of $24,152 was made to owners of our Series B preferred stock during 2019 and 2018.

Debt Outstanding

Total debt outstanding decreased to $223,835 at December 31, 2019, from $262,731 at December 31, 2018, a decrease of 14.8%. During 2019 and 2018, we incurred new finance lease obligations of $78,950 and $105,325, respectively.

Critical Accounting Policies

The preparation of financial statements and related disclosures in conformity with accounting principles generally accepted in the United States requires management to make judgments, assumptions and estimates that affect the amounts reported in the Financial Statements and accompanying notes. Note 2 to the Financial Statements in the Annual Report on Form 10-K for the year ended December 31, 2019, describes the significant accounting policies and methods used in the preparation of the Financial Statements. Estimates are used for, but not limited to, the accounting for the allowance for doubtful accounts, inventory allowances, property and equipment depreciable lives, patents and license useful lives, revenue recognition, tax valuation allowance, stock-based compensation and assessing changes in which impairment of certain long-lived assets may occur. Actual results could differ from these estimates. The following critical accounting policies are impacted significantly by judgments, assumptions and estimates used in the preparation of the Financial Statements. The allowance for doubtful accounts is based on our assessment of the collectability of specific customer accounts and the aging of the accounts receivable. If there is a deterioration of a major customer's credit worthiness or actual defaults are higher than our historical experience, our estimates of the recoverability of amounts due us could be adversely affected. Inventory purchases and commitments are based upon future demand forecasts. If there is a sudden and significant decrease in demand for our products or there is a higher risk of inventory obsolescence because of rapidly changing technology and customer requirements, we may be required to increase our inventory allowances and our gross profit could be adversely affected. Depreciable and useful lives estimated for property and equipment, licenses and patents are based on initial expectations of the period of time these assets and intangibles will provide benefit. Changes in circumstances related to a change in our business, change in technology or other factors could result in these assets becoming impaired, which could adversely affect the value of these assets.

Inflation

We believe there has not been a significant impact from inflation on our operations during the past three fiscal years.

Safe Harbor Statement under the Private Securities Litigation Reform Act of 1995

This document contains forward-looking statements that reflect the views of management with respect to future events and financial performance. These forward-looking statements are subject to certain uncertainties and other factors that could cause actual results to differ materially from such statements. See “Risk Factors” above. These uncertainties and other factors include, but are not limited to, the words “anticipates,” “believes,” “estimates,” “expects,” “plans,” “projects,” “targets” and similar expressions which identify forward-looking statements. You should not place undue reliance on these forward-looking statements, which speak only as of the date the statements were made. We undertake no obligation to publicly update or revise any forward-looking statements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

Not applicable

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

Our balance sheets as of December 31, 2019 and 2018, and the related statements of operations, shareholders’ equity and cash flows for the years ended December 31, 2019 and 2018, together with the Report of Independent Registered Public Accounting Firm thereon appear beginning on Page F-1.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

Not applicable.

ITEM 9A. CONTROLS AND PROCEDURES.

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of the Company’s Principal Executive Officer and Principal Accounting Officer, has evaluated the effectiveness of the Company’s disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”)) as of the end of the period covered by this report. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can only provide reasonable assurance of achieving the desired control objectives and management is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Due to a segregation of duties material weakness described below, and based on this evaluation, the Company’s Principal Executive Officer and Principal Accounting Officer have concluded that as of December 31, 2019, the Company’s disclosure controls and procedures were not effective, at the reasonable assurance level, in recording, processing, summarizing and reporting, on a timely basis, information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act and in ensuring that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the Company’s management, including the Principal Executive Officer and Principal Accounting Officer, as appropriate to allow timely discussions regarding required disclosure. We will continue to report to the Audit Committee and the Board of Directors at least monthly (and more often as necessary). We believe this will continue to mitigate this weakness. This reporting includes balance sheets, statements of operations, statements of cash flows, and other detail supporting these statements. Accordingly, we believe that the financial statements included in this report fairly present, in all material respects, our financial condition, results of operations, changes in shareholder’s equity and cash flows for all periods presented.

Inherent Limitations Over Internal Controls

Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Our internal control over financial reporting includes those policies and procedures that: (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures are being made only in accordance with authorizations of management and directors; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of assets that could have a material effect on the financial statements.

Management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our internal controls will prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of internal controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. Also, any evaluation of the effectiveness of controls in future periods are subject to the risk that those internal controls may become inadequate because of changes in business conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934, as amended). Management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the criteria established in the Internal Control – Integrated Framework (2013 Framework) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on this evaluation, management has concluded that our internal control over financial reporting was not effective as of December 31, 2019. The matter involving internal controls over financial reporting that management considered to be a material weakness under the standards of the Public Company Accounting Oversight Board ("PCAOB") was insufficient segregation of duties consistent with control objectives. Management is aware of the risks associated with the lack of segregation of duties due to the small number of employees currently working with general administrative and financial matters. Due to our size and nature, segregation of all conflicting duties may not always be possible and may not be economically feasible. However, to the extent possible, the initiation of transactions, the custody of assets and the recording of transactions should be performed by separate individuals.

In order to remediate this material weakness, we plan to improve segregation procedures by strengthening cross approval of various functions including financial reporting and disclosure review controls by the Chief Financial Officer to include the Chief Executive Officer and Audit Committee Chairperson where appropriate. We will continue to report to the Audit Committee and the Board of Directors at least monthly (and more often as necessary). This reporting includes balance sheets, statement of operations, statements of cash flows and other detail supporting these statements.

This annual report does not include an attestation report of our registered public accounting firm regarding internal control over financial reporting. Our report was not subject to attestation by our registered public accounting firm pursuant to rules of the Securities and Exchange Commission that permits us to provide only management's report in this annual report.

Changes in Internal Control over Financial Reporting

There were no changes in the Company's internal control over financial reporting (as such term is defined in Exchange Act Rule 13a-15(f) and Rule 15d-15(f)) that occurred in the last fiscal quarter that materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE.

The information required by this item is included under the captions, "**Election of Directors**," "**Executive Officers**" and "**Section 16(a) Beneficial Ownership Reporting Compliance**" in our proxy statement relating to our 2020 Annual Meeting of Shareholders scheduled to be held on June 4, 2020, and is incorporated herein by reference.

We have a Business Conduct Policy applicable to all employees of SCI. Additionally, the Chief Executive Officer ("CEO") and all senior financial officers, including the principal financial officer, the principal accounting officer or controller, or any person performing a similar function (collectively, the "Senior Financial Officers") are bound by the provisions of our code of ethics relating to ethical conduct, conflicts of interest, and compliance with the law. The code of ethics is posted on our website at http://www.sciengineeredmaterials.com/corporate-governance.

We intend to satisfy the disclosure requirement under Item 10 of Form 8-K regarding any amendment to, waiver of, any provision of this code of ethics by posting such information on our website at the address and location specified above.

ITEM 11. EXECUTIVE COMPENSATION.

The information required by this item is included under the caption "**Executive Compensation**" in our proxy statement relating to our 2020 Annual Meeting of Shareholders scheduled to be held on June 4, 2020 and is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.

The information required by this item is included under the captions "**Ownership of Common Stock by Directors and Executive Officers"** and "**Ownership of Common Stock by Principal Shareholders**" in our proxy statement relating to our 2020 Annual Meeting of Shareholders scheduled to be held on June 4, 2020 and is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE.

The information required by this item is included under the caption "**Certain Relationships and Related Transactions, and Director Independence**" in our proxy statement relating to our 2020 Annual Meeting of Shareholders scheduled to be held on June 4, 2020 and is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES.

The information required by this item is included under the caption "**Fees of the Registered Independent Public Accounting Firm for the year ended December 31, 2019 and 2018"** in our proxy statement relating to our 2020 Annual Meeting of Shareholders scheduled to be held on June 4, 2020 and is incorporated herein by reference.

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.

Exhibit Number		Exhibit Description
3(a)		Certificate of Second Amended and Restated Articles of Incorporation of Superconductive Components, Inc. (Incorporated by reference to Exhibit 3(a) to the Company's initial Form 10-SB, filed on September 28, 2000).
3(b)		Restated Code of Regulations of Superconductive Components, Inc. (Incorporated by reference to Exhibit 3(b) to the Company's initial Form 10-SB, filed on September 28, 2000)
3(c)		Amendment to Articles of Incorporation recording the change of the corporate name to SCI Engineered Materials, Inc. (Incorporated by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-QSB filed November 7, 2007).
4(a)		SCI Engineered Materials, Inc. 2011 Stock Incentive Plan (Incorporated by reference to the Company's Definitive Proxy Statement for the 2011 Annual Meeting of Shareholders held on June 10, 2011, filed April 28, 2011).
4(b)		Superconductive Components, Inc. 2006 Stock Incentive Plan (Incorporated by reference to Appendix A to the Company's Definitive Proxy Statement for the 2006 Annual Meeting of Shareholders held on June 9, 2006, filed May 1, 2006).
4(c)		Form of Incentive Stock Option Agreement under the Superconductive Components, Inc. 2006 Stock Incentive Plan (Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K dated June 19, 2006, filed June 23, 2006).
4(d)	*	Description of Securities of the Company.
10(a)		Description of Bonding Agreement between the Company and Konfoong Material International Co., Ltd. dated as of December 18, 2018 (Incorporated by reference to the Company's Current Report on Form 8-K, dated December 18, 2018).
10(b)		Employment Agreement entered into as of December 13, 2018, between Jeremiah Young and the Company.
14(a)		SCI Engineered Materials Code of Ethics for the Chief Executive Officer and Chief Financial Officer (Incorporated by reference to the Company's Current Report via the Company's website at www.sciengineeredmaterials.com).
23.1	*	Consent of Independent Registered Public Accounting Firm.
24	*	Power of Attorney.
31.1	*	Rule 13a-14(a) Certification of Principal Executive Officer.
31.2	*	Rule 13a-14(a) Certification of Principal Financial Officer.
32.1	*	Section 1350 Certification of Principal Executive Officer.
32.2	*	Section 1350 Certification of Principal Financial Officer.
99.1		Press Release dated February 5, 2020, entitled "SCI Engineered Materials, Inc., Reports 2019 Twelve-month and Fourth Quarter Results."
101		The Company's Annual Report on Form 10-K for the year ended December 31, 2019, formatted in XBRL (eXtensible Business Reporting Language): (i) Consolidated Balance Sheets at December 31, 2019 and December 31, 2018 (ii) Consolidated Statements of Operations for the years ended December 31 2019 and 2018, (iii) Consolidated Statement of Changes in Equity for the years ended December 31, 2019 and December 2018, (iv) Consolidated Statements of Cash Flows for the years ended December 31, 2019 and 2018, and (v) Notes to Financial Statements.

* Filed herewith

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

SCI ENGINEERED MATERIALS, INC.

Date: February 5, 2020	By: /s/ Jeremiah R. Young Jeremiah R. Young, Director and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities indicated on the 5th day of February 2020.

Signature	*Title*
/s/ Jeremiah R. Young Jeremiah R. Young	Director and Chief Executive Officer (principal executive officer)
/s/ Gerald S. Blaskie Gerald S. Blaskie	Vice President and Chief Financial Officer (principal financial officer and principal accounting officer)
Laura F. Shunk* Laura F. Shunk	Chairperson of the Board of Directors
Edward W. Ungar* Edward W. Ungar	Director
John P. Gilliam* John P. Gilliam	Director
Emily Lu* Emily Lu	Director
Charles Wickersham* Charles Wickersham	Director

*By: /s/ Jeremiah R. Young
Jeremiah R. Young, Attorney-in-Fact

INDEX TO FINANCIAL STATEMENTS

<u>**Report of Independent Registered Public Accounting Firm**</u>

Board of Directors and Shareholders
SCI Engineered Materials, Inc.

Opinion on the Consolidated Financial Statements

We have audited the accompanying balance sheets of SCI Engineered Materials, Inc. (the "Company") as of December 31, 2019 and 2018, the related statements of operations, shareholders' equity, and cash flows for the years then ended, and related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2019 and 2018, and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ GBQ Partners LLC

We have served as the Company's auditor since 2014.
Columbus, Ohio
February 5, 2020

PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

SCI ENGINEERED MATERIALS, INC.

BALANCE SHEETS

DECEMBER 31, 2019 AND 2018

ASSETS

	2019	2018
Current Assets		
Cash	$ 1,828,397	$ 1,802,839
Accounts receivable		
Trade, less allowance for doubtful accounts of $15,000	346,381	477,779
Other	2,143	153
Inventories, net	2,749,038	2,752,845
Prepaid expenses	105,464	613,425
Total current assets	5,031,423	5,647,041
Property and Equipment, at cost		
Machinery and equipment	8,258,578	8,017,850
Furniture and fixtures	137,680	127,610
Leasehold improvements	592,899	360,225
Construction in progress	-	138,067
	8,989,157	8,643,752
Less accumulated depreciation and amortization	(7,036,955)	(6,720,847)
	1,952,202	1,922,905
Right of use asset, net	434,492	-
Other assets	86,958	75,613
Total other assets	521,450	75,613
TOTAL ASSETS	$ 7,505,075	$ 7,645,559

The accompanying notes are an integral part of these financial statements.

SCI ENGINEERED MATERIALS, INC.

BALANCE SHEETS (continued)

DECEMBER 31, 2019 AND 2018

LIABILITIES AND SHAREHOLDERS' EQUITY

	2019	2018
Current Liabilities		
Finance lease obligations, current portion	$ 98,524	$ 114,853
Operating lease obligations, current portion	80,669	-
Accounts payable	254,004	321,348
Customer deposits	2,408,837	3,202,447
Accrued compensation	116,686	211,227
Accrued expenses and other	80,375	125,130
Total current liabilities	3,039,095	3,975,005
Finance lease obligations, net of current portion	$ 125,311	$ 147,878
Operating lease obligations, net of current portion	391,833	-
Total liabilities	3,556,239	4,122,883
Shareholders' Equity		
Convertible preferred stock, Series B, 10% cumulative, nonvoting, no par value, $10 stated value, optional redemption at 103%; optional shareholder conversion 2 shares for 1; 24,152 shares issued and outstanding	514,438	514,438
Common stock, no par value, authorized 15,000,000 shares; 4,370,519 and 4,277,731 shares issued and outstanding, respectively	10,410,677	10,275,733
Additional paid-in capital	2,265,925	2,280,060
Accumulated deficit	(9,242,204)	(9,547,555)
Total shareholders' equity	3,948,836	3,522,676
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	$ 7,505,075	$ 7,645,559

The accompanying notes are an integral part of these financial statements.

SCI ENGINEERED MATERIALS, INC.

STATEMENTS OF OPERATIONS

YEARS ENDED DECEMBER 31, 2019 AND 2018

		2019		**2018**
Total revenue	$	12,950,387	$	11,361,575
Total cost of revenue		10,741,824		8,456,799
Gross profit		2,208,563		2,904,776
General and administrative expense		1,261,958		1,256,778
Research and development expense		366,492		351,999
Marketing and sales expense		249,255		361,132
Income from operations		330,858		934,867
Interest expense		22,468		9,356
Income before income taxes		308,390		925,511
Income taxes		3,039		17,642
Net income		305,351		907,869
Dividends on preferred stock		24,152		24,152
INCOME APPLICABLE TO COMMON STOCK	$	281,199	$	883,717
Earnings per share - basic and diluted (Note 7)				
Income per common share				
Basic	$	0.06	$	0.21
Diluted	$	0.06	$	0.21
Weighted average shares outstanding				
Basic		4,328,210		4,223,865
Diluted		4,362,327		4,257,131

The accompanying notes are an integral part of these financial statements.

SCI ENGINEERED MATERIALS, INC.

STATEMENTS OF SHAREHOLDERS' EQUITY

YEARS ENDED DECEMBER 31, 2019 AND 2018

	Convertible Preferred Stock, Series B	Common Stock	Additional Paid-In Capital	Accumulated Deficit	Total
Balance 12/31/17	$ 514,438	$ 10,131,307	$ 2,289,474	$ (10,455,424)	$ 2,479,795
Accretion of cumulative dividends	24,152	-	(24,152)	-	-
Stock based compensation expense (Note 2I)	-	-	14,738	-	14,738
Proceeds from exercise of stock options	-	9,765	-	-	9,765
Payment of cumulative dividends (Note 7)	(24,152)	-	-	-	(24,152)
Common stock issued (Note 7)	-	134,661	-	-	134,661
Net income	-	-	-	907,869	907,869
Balance 12/31/18	$ 514,438	$ 10,275,733	$ 2,280,060	$ (9,547,555)	$ 3,522,676
Accretion of cumulative dividends	24,152	-	(24,152)	-	-
Stock based compensation expense (Note 2I)	-	-	10,017	-	10,017
Proceeds from exercise of stock options	-	14,952	-	-	14,952
Payment of cumulative dividends (Note 7)	(24,152)	-	-	-	(24,152)
Common stock issued (Note 7)	-	119,992	-	-	119,992
Net income	-	-	-	305,351	305,351
Balance 12/31/19	$ 514,438	$ 10,410,677	$ 2,265,925	$ (9,242,204)	$ 3,948,836

The accompanying notes are an integral part of these financial statements.

SCI ENGINEERED MATERIALS, INC.

STATEMENTS OF CASH FLOWS

YEARS ENDED DECEMBER 31, 2019 AND 2018

	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES		
Net income	$ 305,351	$ 907,869
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and accretion	428,604	450,180
Amortization	74,069	2,763
Stock based compensation	130,009	149,399
Loss on disposal of equipment	3,193	669
Inventory reserve	(7,744)	(26,259)
Changes in operating assets and liabilities:		
Accounts receivable	129,407	(141,923)
Inventories	11,551	(2,109,142)
Prepaid expenses	507,961	(475,250)
Right of use asset	(505,701)	-
Other assets	(14,204)	(25,511)
Accounts payable	(67,344)	13,850
Operating lease obligations	472,502	-
Accrued expenses and customer deposits	(935,447)	2,906,442
Net cash provided by operating activities	532,207	1,653,087
CASH FLOWS FROM INVESTING ACTIVITIES		
Proceeds on sale of equipment	1,033	-
Purchases of property and equipment	(380,636)	(380,933)
Net cash used in investing activities	(379,603)	(380,933)
CASH FLOWS FROM FINANCING ACTIVITIES		
Proceeds from exercise of stock options	14,952	9,765
Principal payments on finance lease obligations and notes payable	(117,846)	(375,730)
Payments of cumulative dividends on preferred stock	(24,152)	(24,152)
Net cash used in financing activities	(127,046)	(390,117)
NET INCREASE IN CASH	$ 25,558	$ 882,037
CASH - Beginning of year	1,802,839	920,802
CASH - End of year	$ 1,828,397	$ 1,802,839
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION		
Cash paid during the year for:		
Interest	$ 11,075	$ 22,931
Income taxes	3,039	17,642
SUPPLEMENTAL DISCLOSURES OF NONCASH INVESTING AND FINANCING ACTIVITIES		
Property and equipment purchased by finance lease	$ 78,950	$ 105,325
Increase in asset retirement obligation	2,541	2,431

The accompanying notes are an integral part of these financial statements.

Note 1. Business Organization and Purpose

SCI Engineered Materials, Inc. (“SCI”, “we” or the “Company”), an Ohio corporation, was incorporated in 1987. The Company operates in one segment as a global supplier and manufacturer of advanced materials for Physical Vapor Deposition (“PVD”) Thin Film Applications. The Company is focused on specific markets within the PVD industry (Photonics, Thin Film Solar, Glass, and Transparent Electronics). Substantially, all of the Company’s revenues are generated from customers with multi-national operations. The Company develops innovative customized solutions enabling commercial success through collaboration with end users and Original Equipment Manufacturers.

Note 2. Summary of Significant Accounting Policies

A. Cash - The Company considers all highly liquid investments purchased with an original maturity of three months or less to be cash.

B. Fair Value of Financial Instruments - The estimated fair value of amounts reported in the financial statements have been determined using available market information and valuation methodologies, as applicable (see Note 10).

C. Concentrations of Credit Risk - The Company’s cash balances, which are at times in excess of federally insured levels, are maintained at large regional banks, and are continually monitored to minimize the risk of loss. The Company grants credit to most customers, who are varied in terms of size, geographic location and financial strength. Customer balances are continually monitored to minimize the risk of loss.

The Company’s two largest customers accounted for 72% and 10% of total revenue in 2019. These two customers represented 76% of the accounts receivable trade balance at December 31, 2019. The Company expects to collect all outstanding accounts receivables as of December 31, 2019 from these customers.

The Company’s two largest customers accounted for 36% and 17% of total revenue in 2018. These two customers represented 27% of the accounts receivable trade balance at December 31, 2018. The Company subsequently collected all outstanding accounts receivables as of December 31, 2018 from these customers.

D. Accounts Receivable - The Company extends unsecured credit to customers under normal trade agreements which require payment within 30 days. The Company does not charge interest on delinquent trade accounts receivable. Unless specified by the customer, payments are applied to the oldest unpaid invoice. Accounts receivable are presented at the amount billed.

Management estimates an allowance for doubtful accounts, which was $15,000 as of December 31, 2019 and 2018. This estimate is based upon management’s review of delinquent accounts and an assessment of the Company’s historical evidence of collections. Specific accounts are charged directly to the reserve or bad debt expense when management obtains evidence of a customer’s insolvency or otherwise determines that the account is uncollectible. There was no bad debt expense during 2019 and 2018.

Note 2. Summary of Significant Accounting Policies (continued)

E. Inventories - Inventories are stated at the lower of cost or net realizable value on an acquired or internally produced lot basis, and consist of raw materials, work-in-process and finished goods. Cost includes material, labor, freight and applied overhead. Inventory reserves are established for obsolete inventory, lower of cost or net realizable value, and excess inventory quantities based on management's estimate of net realizable value. The Company had an inventory reserve of $21,997 and $29,741 at December 31, 2019, and 2018, respectively.

F. Property and Equipment - Property and equipment are carried at cost. Depreciation is provided using the straight-line method based on the estimated useful lives of the assets. Useful lives range from three years on computer equipment to sixteen years on certain equipment. Leasehold improvements are amortized over the shorter of the estimated useful life or the term of the lease. Depreciation expense totaled $428,604 and $450,180 for the years ended December 31, 2019 and 2018, respectively. Expenditures for renewals and betterments are capitalized and expenditures for repairs and maintenance are charged to operations as incurred.

Long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. If the fair value is less than the carrying amount of the asset, a loss is recognized for the difference. There was no property and equipment considered impaired during 2019 or 2018.

G. Intangible Assets - The Company reviews intangible assets for impairment and performs detailed testing whenever impairment indicators are present. If necessary, an impairment loss is recorded for the excess of carrying value over fair value. There were no intangible assets considered impaired during 2019 or 2018.

Our patent titled "Process for the removal of contaminants from sputtering target substrates" (US patent No. 10,138,545 B2) was issued on November 27, 2018. This provides a process for the removal of contaminants on a spent sputtering target used in Plasma Vapor Deposition.

A patent titled "Display having a transparent conductive oxide layer comprising metal doped zinc oxide applied by sputtering" (US patent No. 9,927,667) was issued on March 27, 2018. The Company holds the rights to this patent and any subsequent patents for this technology related to the application of Zinc based Transparent Conductive Oxide in Displays.

Costs incurred to secure patents have been capitalized and amortized over the life of the patents. Cost and accumulated amortization of the patents at December 31, 2019 was $78,810 and $4,837, respectively and cost and accumulated amortization of the patents at December 31, 2018 was $64,481 and $1,977, respectively. Amortization expense related to patents was $2,860 and $1,977 for the years ended December 31, 2019 and 2018, respectively. Amortization expense is expected to be at least $2,860 for each of the next five years.

Note 2. Summary of Significant Accounting Policies (continued)

H. Revenue Recognition - The core principle of the guidance is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The Company's analysis of sales contracts under ASC 606 supports the recognition of revenue at a point in time, typically when title passes to the customer upon shipment, which is consistent with the previous revenue recognition model.

The core principle of ASC 606 is supported by five steps which are listed below:

1. Identify the contract with the customer.
2. Identify the performance obligation in the contract.
3. Determine the transaction price.
4. Allocate the transaction price to performance obligations in the contract.
5. Recognize revenue when or as the Company satisfies a performance obligation.

The Company enters into contracts with its customers that generally represent purchase orders specifying general terms and conditions, order quantities and per unit product price. The Company has determined that each unit of product purchased represents a separate performance obligation. The Company satisfies its performance obligations and recognizes revenue at a point in time when control of a unit of product is transferred to the customer. Revenue is measured as the amount of consideration the Company expects to receive in exchange for transferring products. For the majority of product sales, transfer of control occurs when the products are shipped from the Company's manufacturing facility to the customer. The cost of delivering products to the Company's customers is recorded as a component of cost of products sold. Those costs may include the amounts paid to a third party to deliver the products. Any freight costs billed to and paid by a customer are included in revenue.

The Company considers collectability of amounts due under a contract to be probable upon inception of a sale based on an evaluation of the credit worthiness of each customer. The Company sells its products typically under agreements with payment terms of 30 days. The Company does not typically include extended payment terms or significant financing components in contracts with customers. The majority of the Company's contracts have an obligation to transfer products within one year. Thus, the Company elects to use the practical expedient where incremental cost of obtaining a contract, such as commissions, is expensed when incurred because the amortization period for those costs is one year or less. The Company treats shipping and handling activities that occur after control of the product transfers as fulfillment activities, and therefore, does not account for shipping and handling costs as a separate performance obligation. Customer deposits are funds received in advance from customers and are recognized as revenue when the Company has transferred control of product to the customer. Product revenues are recognized upon shipment of goods as the customer has assumed the significant risks and rewards of ownership and the Company is entitled to payment at this point. Service revenues are recognized upon completion as the customer cannot realize the benefit of the service until fully completed.

During 2019 and 2018, revenue from the Photonics market was 97% and 80% of total revenue, respectively. The balance of the revenue in each period was almost entirely from the Thin Film Solar market. The top two customers represented 82% and 53% of total revenue during 2019 and 2018, respectively. International shipments resulted in 8% and 30% of total revenue for 2019 and 2018, respectively.

Note 2. Summary of Significant Accounting Policies (continued)

I. Stock Based Compensation - Compensation cost for all stock-based awards is based on the grant date fair value and is recognized over the required service (vesting) period. Non cash stock based compensation expense was $130,009 and $149,399 for the years ended December 31, 2019 and 2018, respectively. Non cash stock based compensation expense includes $119,992 and $121,380 for stock grants awarded to the non-employee board members during 2019 and 2018, respectively. Unrecognized compensation expense was $15,762 as of December 31, 2019, and will be recognized through 2023. There was no tax benefit recorded for this compensation cost as the expense primarily relates to incentive stock options that do not qualify for a tax deduction until, and only if, a qualifying disposition occurs.

J. Research and Development - Research and development costs are expensed as incurred. Research and development expense for the years ended December 31, 2019 and 2018, was $366,492 and $351,999, respectively. The Company has new materials under development that may replace the Cadmium Sulfide buffer layer in CIGS solar cells. These materials were tested at Case Western Reserve University and the results support the use of its innovative material in thin film solar applications that could lead to higher efficiencies. The Company continues to invest in developing new products for all of its markets including transparent conductive oxide systems for the thin film solar and display markets as well as transparent electronic products. These efforts include accelerating time to market for those products and involve research and development expense.

K. Income Taxes - Income taxes are provided for by utilizing the asset and liability method which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the carrying amounts and the tax bases of assets and liabilities using presently enacted tax rates. Deferred tax assets are reduced by a valuation allowance which is established when "it is more likely than not" that some portion or all of the deferred tax assets will not be recognized.

L. Use of Estimates - The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Estimates are used for, but not limited to, the accounting for the allowance for doubtful accounts, inventory allowances, property and equipment depreciable lives, patents and licenses useful lives, revenue recognition, tax valuation, stock-based compensation and assessing changes in which impairment of certain long-lived assets may occur. Actual results could differ from those estimates.

Note 2. Summary of Significant Accounting Policies (continued)

M. Recent Accounting Pronouncements –

Stock Compensation - In March 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-09, Compensation – Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting, which simplified certain aspects of the accounting for share-based payment transactions, including income taxes, classification of awards and classification of the statement of cash flows. ASU 2016-09 became effective for the Company in the first quarter of 2018. There was minimal impact on the financial statements.

Leases - In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842). The new standard establishes a right-of-use (ROU) model that requires a lessee to record a ROU asset and a lease liability on the balance sheet for all leases with terms longer than 12 months. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the income statement. In July 2018, the FASB issued ASU No. 2018-10, Codification Improvements to Topic 842, Leases. The amendments in ASU 2018-10 clarify, correct or remove inconsistencies in the guidance provided under ASU 2016-02 related to sixteen specific issues identified. Also, in July 2018, the FASB issued ASU No. 2018-11, Targeted Improvements to Topic 842. This amendment provides the Company with an additional and optional transition method to adopt the new lease standard. Under this new transition method, the Company can apply the new lease standard at the adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption and present the accounting on a prospective or go-forward basis instead of applying to the earliest comparative period presented in the financial statements. The new lease standard became effective for the Company January 1, 2019.

The Company adopted the new standard on January 1, 2019. The Company also elected the package of practical expedients to not reassess existing lease classifications on adoption. The new standard did not have a material impact on the Company's income statements. The most significant impact of the new standard was the recognition of a ROU asset and lease liability of over $500,000 as of January 1, 2019.

Note 3. Inventories

Inventories consist of the following at December 31:

	2019	2018
Raw materials	$ 883,767	$ 1,568,487
Work-in-process	1,802,092	1,144,080
Finished goods	85,176	70,019
	2,771,035	2,782,586
Reserve for obsolete inventory	(21,997)	(29,741)
	$ 2,749,038	$ 2,752,845

Note 4. Note Payable

During October 2019, the Company renewed its line of credit with Huntington Bank for $1 million. The line of credit bears interest at 0.5 percentage points over the Prime Commercial Rate with an expiration date of October 5, 2020. At December 31, 2019, no amounts were drawn on the line of credit.

Note 5. Lease Obligations

<u>Operating</u>

The Company entered into an operating lease with a third party on March 18, 2014 for its headquarters in Columbus, Ohio. The terms of the lease include monthly payments ranging from $9,000 to $9,700 with a maturity date of November 30, 2024. The Company has the option to extend the lease period for an additional five years beyond the original expiration date. There are no restrictions or covenants associated with the lease. The lease costs were approximately $106,200 and $104,000 during the years ended December 31, 2019 and 2018, respectively.

The following is a maturity analysis, by year, of the annual undiscounted cash outflows of the operating lease liabilities as of December 31, 2019:

2020		108,117
2021		110,364
2022		112,611
2023		114,857
2024		102,550
Total minimum lease payments	$	548,499

Operating cash outflows from operating leases	$	72,817
Weighted average remaining lease term – operating leases		4.9 years
Weighted average discount rate – operating leases		5.5%

Note 6. Finance Leases

The Company also leases certain equipment under finance leases. Future minimum lease payments, by year, with the present value of such payments, as of December 31, 2019, are shown in the following table.

2020	$	107,808
2021		91,398
2022		21,609
2023		18,129
Total minimum lease payments		238,944
Less amount representing interest		15,109
Present value of minimum lease payments		223,835
Less current portion		98,524
Finance lease obligations, net of current portion	$	125,311

The equipment under finance lease at December 31 is included in the accompanying balance sheets as follows:

	2019		2018	
Machinery and equipment	$	438,316	$	725,036
Less accumulated depreciation and amortization		98,305		222,973
Net book value	$	340,011	$	502,063

These assets are amortized over a period of ten years using the straight-line method and amortization is included in depreciation expense.

The finance leases are structured such that ownership of the leased asset reverts to the Company at the end of the lease term. Accordingly, leased assets are depreciated using the Company's normal depreciation methods and lives. In 2019, ownership of certain assets were transferred to the Company in accordance with the terms of the leases and these assets have been excluded from the leased asset disclosure above.

The Company entered into a finance lease obligation during 2019 for the purchase of new production and testing equipment in the amount of $78,950. Those assets are reflected in the total above.

Note 7. Common and Preferred Stock

Common Stock

During 2019, the non-employee board members received compensation of 63,500 shares of common stock of the Company. The stock had an aggregate value of $119,992 and was recorded as non-cash stock compensation expense in the financial statements.

During 2018, the non-employee board members received 67,487 shares of common stock of the Company with an aggregate value of $121,380. This was recorded as non-cash stock compensation expense in the financial statements.

Preferred Stock

Shares of preferred stock authorized and outstanding at December 31, 2019 and 2018, were as follows:

	Shares Authorized	Shares Outstanding
Cumulative Preferred Stock	10,000	-
Voting Preferred Stock	125,000	-
Cumulative Non-Voting Preferred Stock	125,000(a)	24,152

(a) Includes 700 shares of Series A Preferred Stock and 100,000 shares of Convertible Series B Preferred Stock authorized for issuance.

In January 1996, the Company completed an offering of 70,000 shares of $10 stated value 1995 Series B 10% cumulative non-voting convertible preferred stock. The shares are convertible to common shares at the rate of $5.00 per share. At the Company's option, the Series B shares are redeemable at 103% of the stated value plus the amount of any accrued and unpaid cash dividends.

There were 24,152 shares of Series B convertible preferred stock outstanding at December 31, 2019 and 2018. During 2019 and 2018, a dividend payment of $24,152 was made to preferred shareholders of record.

The Company had accrued dividends of $265,672 at December 31, 2019 and 2018. These amounts were included in convertible preferred stock, Series B on the balance sheet at December 31, 2019 and 2018.

Note 7. Common and Preferred Stock (continued)

Earnings Per Share

Basic income (loss) per share is calculated as income available (loss attributable) to common shareholders divided by the weighted average of common shares outstanding. Diluted earnings per share is calculated as diluted income available (loss attributable) to common shareholders divided by the diluted weighted average number of common shares outstanding. Diluted weighted average number of common shares gives effect to all dilutive potential common shares outstanding during the period using the treasury stock method and convertible preferred stock using the if-converted method. Diluted earnings per share exclude all diluted potential shares if their effect is anti-dilutive.

Following is a summary of employee and director outstanding stock options outstanding and preferred stock, Series B at December 31.

	2019	2018
Options	76,037	396,941
Preferred Stock, Series B	24,152	24,152
	100,189	421,093

The following is provided to reconcile the earnings per share calculations:

	2019	2018
Income applicable to common stock	$ 281,199	$ 883,717
Weighted average common shares outstanding - basic	4,328,210	4,223,865
Effect of dilution - stock options	34,117	33,266
Weighted average shares outstanding - diluted	4,362,327	4,257,131

Note 8. Stock Option Plans

On June 10, 2011, shareholders approved the SCI Engineered Materials, Inc. 2011 Stock Incentive Plan (the “2011 Plan”). The Company adopted the 2011 Plan as incentive to key employees, directors and consultants under which options to purchase up to 250,000 shares of the Company’s common stock may be granted, subject to the execution of stock option agreements. Incentive stock options may be granted to key employees of the Company and non-statutory options may be granted to directors who are not employees and to consultants and advisors who render services to the Company. Options may be exercised for periods up to 10 years from the date of grant at prices not less than 100% of fair market value on the date of grant. As of December 31, 2019, there were 34,715 stock options outstanding from the 2011 Plan which expire in May 2028.

Note 8. Stock Option Plans (continued)

On June 9, 2006, shareholders approved the Superconductive Components, Inc. 2006 Stock Incentive Plan. The Company adopted the 2006 Plan as incentive to key employees, directors and consultants under which options to purchase up to 600,000 shares of the Company's common stock may be granted, subject to the execution of stock option agreements. Incentive stock options may be granted to key employees of the Company and non-statutory options may be granted to directors who are not employees and to consultants and advisors who render services to the Company. Options may be exercised for periods up to 10 years from the date of grant at prices not less than 100% of fair market value on the date of grant. The 2006 plan expired in 2016 and no additional stock options may be granted. As of December 31, 2019, there were 41,322 stock options outstanding from the 2006 Plan which expire at various dates through November 2024.

The cumulative status at December 31, 2019 and 2018, of options granted and outstanding, as well as options which became exercisable in connection with the Stock Option Plans is summarized as follows:

Employee Stock Options

	Stock Options	Weighted Average Exercise Price	Weighted Average Contractual Term (yrs)	Aggregate Intrinsic Value
Outstanding at January 1, 2018	381,447	$ 4.54		
Granted	41,719	1.25		
Exercised	(21,225)	0.84		
Expired	(5,000)	3.10		
Outstanding at December 31, 2018	396,941	$ 4.41		
Exercised	(31,788)	0.84		
Expired	(271,500)	6.00		
Forfeited	(17,616)	1.00		
Outstanding at December 31, 2019	76,037	$ 1.03	6.5	$ 13,140
Options exercisable at December 31, 2018	329,988	$ 5.09	1.0	$ -
Options exercisable at December 31, 2019	48,265	$ 0.90	5.4	$ 14,529
Options expected to vest	27,772	$ 1.25	8.4	$ -

There were no Non-Employee Director Stock Options outstanding at December 31, 2019 and 2018.

Note 8. Stock Option Plans (continued)

Information related to the weighted average fair value of nonvested stock options for the year ended December 31, 2019 is as follows:

	Stock Options	Weighted Average Exercise Price
Employee Stock Options		
Nonvested options at January 1, 2019	66,953	$ 1.10
Forfeited	(17,615)	1.00
Vested	(21,566)	0.97
Nonvested options at December 31, 2019	27,772	$ 1.25

Exercise prices range from $0.84 to $1.25 for options at December 31, 2019. The weighted average option price for all options outstanding was $1.03 with a weighted average remaining contractual life of 6.5 years at December 31, 2019.

The weighted average option price for all options outstanding was $4.41 with a weighted average remaining contractual life of 2.2 years at December 31, 2018.

The weighted average fair value at date of grant for options granted during 2018 was $1.25, and was established using the Black-Scholes option valuation method with the following weighted average assumptions:

Expected life in years	5.0
Interest rate	2.7%
Volatility	62.3%
Dividend yield	0%

Note 9. Income Taxes

Deferred tax assets and liabilities result from temporary differences in the recognition of income and expense for tax and financial reporting purposes. Significant components of the Company's deferred tax assets and liabilities are as follows at December 31.

	2019	2018
Deferred tax assets		
NOL carryforwards	$ 822,000	$ 781,000
General business credits carryforwards	331,000	288,000
Stock based compensation	118,000	92,000
UNICAP	59,000	56,000
Allowance for doubtful accounts	3,000	3,000
Reserve for obsolete inventories	5,000	6,000
Reserve for asset retirement	15,000	14,000
Property and equipment	(300,000)	(145,000)
	1,053,000	1,095,000
Valuation allowance	(1,053,000)	(1,095,000)
Net	$ -	$ -

A valuation allowance has been recorded against the realizability of the net deferred tax asset such that no value is recorded for the asset in the accompanying financial statements. The valuation allowance totaled $1,053,000 and $1,095,000 at December 31, 2019 and 2018, respectively.

The Company had net operating loss carryforwards available for federal and state tax purposes of approximately $3,900,000 and $3,700,000 at December 31, 2019 and 2018, respectively, which expire in varying amounts through 2039.

For the years ended December 31, 2019 and 2018, a reconciliation of the statutory rate and effective rate for the provisions for income taxes consists of the following:

	Percentage	
	2019	2018
Federal statutory rate	21.0%	21.0%
State/city tax	1.0	1.9
Non-deductible expense	1.0	0.6
Valuation allowance	(22.0)	(21.6)
Effective rate	1.0%	1.9%

Note 9. Income Taxes (continued)

Components of the income tax provision are as follows:

	2019	2018
Current	$ 3,039	$ 17,642
Deferred:		
NOL utilization/expiration	(41,000)	257,000
General business credits	(42,000)	(44,000)
Other temporary differences	126,000	(62,000)
Change in valuation allowance	(43,000)	(151,000)
Total	$ 3,039	$ 17,642

The Company follows guidance issued by the Financial Accounting Standards Board ("FASB ASC 740") with respect to accounting for uncertainty in income taxes. A tax position is recognized as a benefit only if it is "more-likely-than-not" that the tax position would be sustained in a tax examination, with a tax examination being presumed to occur. The amount recognized is the largest amount of tax benefit that is greater than fifty percent likely of being realized on examination. For tax positions not meeting the "more-likely-than-not" test, no tax benefit is recorded.

The Company has no unrecognized tax benefits under guidance related to tax uncertainties. The Company does not anticipate the unrecognized tax benefits will significantly change in the next twelve months. Any tax penalties or interest expense will be recognized in income tax expense. No interest and penalties related to unrecognized tax benefits were accrued at December 31, 2019 and 2018.

The Company files income tax returns in the U.S. federal jurisdiction and various state and local jurisdictions. The Company is open to federal and state tax audits until the applicable statute of limitations expire. There are currently no federal or state income tax examinations underway for the Company. The tax years 2016 through 2019 remain open to examination by the major taxing jurisdictions in which the Company operates.

Note 10. Fair Value of Financial Instruments

The fair value of financial instruments represents the price that would be received to sell an asset or paid to transfer a liability (an exit price), and not the price that would be paid to acquire an asset or received to assume a liability (an entry price). Significant differences can arise between the fair value and carrying amount of financial instruments that are recognized at historical cost amounts.

The following methods and assumptions were used by the Company in estimating fair value disclosures for financial instruments:

- Cash and cash equivalents, short-term notes payable and finance lease obligations and current maturities of long-term notes payable and finance lease obligations: Amounts reported in the balance sheet approximate fair market value due to the short maturity of these instruments.

- Long-term note payable and finance lease obligations: Amounts reported in the balance sheet approximate fair value as the interest rates on the obligations range from 4.8% to 6.2%, which approximates current fair market rates.

Note 11. Asset Retirement Obligation

Included in machinery and equipment is various production equipment, which per the Company's building lease, is required to be removed upon termination of the related lease. Included in accrued expenses in the accompanying balance sheet is the asset retirement obligation that represents the expected present value of the liability to remove this equipment. There are no assets that are legally restricted for purposes of settling this asset retirement obligation.

Following is a reconciliation of the aggregate retirement liability associated with the Company's obligation to dismantle and remove the machinery and equipment associated with its lease:

Balance at January 1, 2018	$	66,796
Increase in present value of the obligation (accretion expense in the corresponding amount charged against earnings)		2,431
Balance at December 31, 2018	$	69,227
Increase in present value of the obligation (accretion expense in the corresponding amount charged against earnings)		2,541
Balance at December 31, 2019	$	71,768

Note 12. Subsequent Event

The Company entered into a purchase commitment in January 2020 in the amount of $267,150 for the rebuild of production equipment. Work on this rebuild began in January 2020 and is expected to be completed during the third quarter of 2020.

<u>Description of the Company's Common Stock Registered</u>
<u>Under Section 12 of the Exchange Act of 1934</u>

The following summary of SCI Engineered Materials, Inc.'s common stock is based on and qualified by the Company's Restated Code of Regulations ("Regulations") and Second Amended Articles of Incorporation (the "Amended Articles of Incorporation").

The Company's Amended Articles of Incorporation authorize the issuance of 15,000,000 shares of Common Stock, 10,000 shares of Cumulative Preferred Stock, 125,000 shares of Voting Preferred Stock, and 125,000 shares of Non-Voting Preferred Stock, all of which are without par value. There are no shares of Cumulative Preferred Stock and Voting Preferred Stock currently outstanding.

The holders of Common Stock, Cumulative Preferred Stock and Voting Preferred Stock are entitled to one vote per share on each matter submitted to a vote of shareholders. The holders of Non-Voting Preferred Stock are not entitled to vote. The Company's Board of Directors (the "Board") is not classified and each member is elected annually. The Company's Regulations provide for candidates receiving the greatest number of votes to be elected.

The holders of Cumulative Preferred Stock, Voting Preferred Stock and Non-Voting Preferred Stock have the right to receive dividends prior to the payment of dividends on the Common Stock. The Board has the power to determine certain terms relative to any Preferred Stock to be issued, such as the power to establish different series and to set dividend rates, the dates of payment of dividends, the cumulative dividend rights and dates, redemption rights and prices, sinking fund requirements, restrictions on the issuance of such shares or any series thereof, preference, if any, in the event of liquidation. Also, the Board may fix such other express terms as may be permitted or required by law. In the event of any liquidation or dissolution, the holders of the Common Stock are entitled to receive as a class, pro rata, the residue of the assets after payment of the liquidation price to the holders of Preferred Stock.

The common stock is traded on OTC Markets' OTCQB market under the trading symbol "SCIA".

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statements No.333-97583, No. 333-67212 and No. 333-136694 on Forms S-8 of SCI Engineered Materials, Inc. of our report dated February 5, 2020, relating to the financial statements, appearing in this Annual Report on Form 10-K.

/s/ GBQ Partners LLC

Columbus, Ohio
February 5, 2020

POWER OF ATTORNEY

Each of the undersigned officers and/or directors of SCI Engineered Materials, Inc., an Ohio corporation (the "Company"), hereby appoints Jeremiah R. Young and Michael A. Smith as his or her true and lawful attorneys-in-fact, or any of them individually with power to act without the other, as his or her true and lawful attorney-in-fact, in his or her name and on his or her behalf, and in any and all capacities stated below, to sign and to cause to be filed with the Securities and Exchange Commission the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2019, and any and all amendments thereto, hereby granting unto said attorneys, and to each of them, full power and authority to do and perform in the name and on behalf of the undersigned, in any and all such capacities, every act and thing whatsoever necessary to be done in and about the premises as fully as each of the undersigned could or might do in person, hereby granting to each such attorney full power of substitution and revocation, and hereby ratifying all that any such attorney or his substitute may do by virtue hereof.

IN WITNESS WHEREOF, the undersigned have executed this Power of Attorney in counterparts if necessary, effective as of February 5, 2020.

Signature	*Title*
/s/ Jeremiah R. Young Jeremiah R. Young	President and Chief Executive Officer (principal executive officer)
/s/ Gerald S. Blaskie Gerald S. Blaskie	Vice President and Chief Financial Officer (principal financial officer and principal accounting officer)
/s/ Laura F. Shunk Laura F. Shunk	Chairperson of the Board of Directors
/s/ John P. Gilliam John P. Gilliam	Director
/s/ Emily Lu Emily Lu	Director
/s/ Edward W. Ungar Edward W. Ungar	Director
/s/ Charles Wickersham Charles Wickersham	Director

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Jeremiah R. Young, certify that:

1. I have reviewed this annual report on Form 10-K of SCI Engineered Materials, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 5, 2020

/s/ Jeremiah R. Young
Jeremiah R. Young
President and Chief Executive Officer (Principal Executive Officer)

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Gerald S. Blaskie certify that:

1. I have reviewed this annual report on Form 10-K of SCI Engineered Materials, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 5, 2020

/s/ Gerald S. Blaskie
Gerald S. Blaskie
Vice President and Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of SCI Engineered Materials, Inc. (the “Company”) on Form 10-K for the period ending December 31, 2019, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Jeremiah R. Young, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

/s/ Jeremiah R. Young
Jeremiah R. Young
President and Chief Executive Officer of
SCI Engineered Materials, Inc.
February 5, 2020

Exhibit 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of SCI Engineered Materials, Inc. (the “Company”) on Form 10-K for the period ending December 31, 2019, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Gerald S. Blaskie, Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

/s/ Gerald S. Blaskie
Gerald S. Blaskie
Vice President and Chief Financial Officer of
SCI Engineered Materials, Inc.
February 5, 2020