

CABOT MICROELECTRONICS CORP
Form 10-K
November 29, 2006

**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 SEPTEMBER 30, 2006

or

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

For the transition period from _____ to _____

COMMISSION FILE NUMBER 000-30205

CABOT MICROELECTRONICS CORPORATION

(Exact name of registrant as specified in its charter)

DELAWARE

(State of Incorporation)

36-4324765

(I.R.S. Employer Identification No.)

870 NORTH COMMONS DRIVE

AURORA, ILLINOIS

(Address of principal executive offices)

60504

(Zip Code)

Registrant's telephone number, including area code: **(630) 375-6631**

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

<u>Title of each class</u>	<u>Name of each exchange on which registered</u>
Common Stock, \$0.001 par value	The NASDAQ Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act: None

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 Section 15(d) of the 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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer x

Accelerated filer o

Non-accelerated filer o

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

The aggregate market value of the registrant's Common Stock held beneficially or of record by stockholders who are not affiliates of the registrant, based upon the closing price of the Common Stock on March 31, 2006, as reported by the NASDAQ Global Select Market, was approximately \$897,990,000. For the purposes hereof, "affiliates" include all executive officers and directors of the registrant.

As of October 31, 2006, the Company had 23,957,552 shares of Common Stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement for the Annual Meeting of Stockholders to be held on March 6, 2007, are incorporated by reference in Part III of this Form 10-K to the extent stated herein.

This Form 10-K includes statements that constitute "forward-looking statements" within the meaning of federal securities regulations. For more detail regarding "forward-looking statements" see Item 7 of Part II of this Form 10-K.

CABOT MICROELECTRONICS CORPORATION
FORM 10-K
FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2006

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PART I

ITEM 1. BUSINESS

OUR COMPANY

Cabot Microelectronics Corporation ("Cabot Microelectronics", "the Company", "us", "we", or "our"), which was incorporated in the state of Delaware in 2000, is the leading supplier of high-performance polishing slurries used in the manufacture of advanced integrated circuit (IC) devices within the semiconductor industry, in a process called chemical mechanical planarization (CMP). CMP is a process that polishes surfaces at an atomic level, thereby enabling IC device manufacturers to produce smaller, faster and more complex IC devices with fewer defects.

We operate predominantly in one industry segment - the development, manufacture and sale of CMP slurries. Our CMP products are used for a number of applications, such as polishing insulating dielectric layers, tungsten that is used to connect the multiple wiring layers of IC devices through these insulating layers, and copper wiring, including the associated barrier film. In addition, we are developing and commercializing CMP polishing pads, which are used in conjunction with slurries in the CMP process.

In addition to expanding our core business in the semiconductor industry, we also are beginning to grow our business through our engineered surface finishes (ESF) initiative. We believe we can leverage our expertise in CMP slurry formulation, materials and polishing techniques and apply it to demanding surface modification and fine finish polishing applications in other industries where shaping, enabling and enhancing performance is critical to success. For example, we develop, manufacture and sell CMP slurries for polishing certain components in the hard disk drive industry, specifically rigid disk substrates and magnetic heads, and we believe we are one of the leading suppliers in this area. In addition to growing internally, we also are expanding through acquisitions such as our July 2006 acquisition of substantially all of the assets and assumption of certain liabilities of QED Technologies, Inc. (QED), a privately-held company that specializes in unique, patented polishing and metrology systems for fabricating high precision optics. Metrology systems measure surface finish, shape and performance of the optic. Further, in October 2005 we acquired substantially all of the assets and assumed certain liabilities of Surface Finishes Co., Inc. ("Surface Finishes"), a privately-held company that specializes in precision machining techniques at the sub-nanometer level on prototype or production components such as mirrors for optical imaging and scanning, air bearings, optical disc molds, large area reference surfaces and custom gauging.

IC DEVICE MANUFACTURING

An advanced IC device is composed of millions of transistors and other electronic components connected by miles of wiring. The wiring, composed primarily of either aluminum or copper, carries electrical signals through the multiple layers of the IC device. Insulating material is used throughout the IC device to electrically isolate the electronic components and the wiring. To enhance performance, IC device manufacturers have progressively increased the number and density of transistors and other electronic components in each IC device. Consequently, the number of wires and the number of discrete layers have also increased.

The multi-step manufacturing process for IC devices typically begins with a circular wafer of pure silicon. A large number of identical IC devices, or dies, are manufactured on each wafer at the same time. The first step in the manufacturing process builds transistors and other electronic components on the silicon wafer. These are isolated from each other using a layer of insulating material, most often silicon dioxide, to prevent electrical signals from bridging from one transistor to another. These components are then wired together using either aluminum or copper in a particular sequence to produce a functional IC device with specific characteristics. When the wiring on one layer of

the IC device is completed, another layer of insulating material is added. The process of alternating insulating and wiring layers is repeated until the desired wiring within the IC device is finished. At the end of the process, the wafer is cut into the individual dies, which are then packaged to form individual chips.

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The percentage of IC devices that utilize CMP in the manufacturing process has increased steadily over time as semiconductor technology has advanced and performance requirements of IC devices have increased. We believe that CMP is used in just over half of all IC devices made today, and we expect that CMP will be used more extensively in the future as manufacturers continue to shrink the size of devices.

IC devices can generally be segmented into either logic or memory devices. Logic devices include chips such as microprocessors, digital signal processors, microcomponents and microcontrollers. These are normally computing-intensive devices that need to perform large numbers of processing steps every second. Advanced logic chips use copper wiring to provide increased processing speed because copper wiring has lower electrical resistance than aluminum wiring; aluminum wiring is generally used in chips that do not require this speed, such as logic devices of older technology, because it is more cost-effective than using copper wiring. Memory devices, which include flash, DRAM and SRAM chips, function by reading, storing and writing data. Traditionally this segment has been highly cost sensitive and processing speed is not as critical as in logic devices. Therefore, memory devices tend to use aluminum wiring.

CMP PROCESS AND BENEFITS

CMP is a polishing process used by IC device manufacturers to planarize or flatten many of the multiple layers of material that are built upon silicon wafers in the production of advanced IC devices. In this polishing process, CMP slurries and pads are used to level, smooth and remove excess material from the surfaces of these layers via a combination of chemical reactions and mechanical abrasion, while leaving minimal residue or defects on the surface and leaving only the material necessary for circuit integrity. CMP slurries are liquid solutions generally composed of high-purity deionized water, proprietary chemical additives and engineered abrasives that chemically and mechanically interact with the surface material of the IC device at an atomic level. CMP pads are engineered polymeric materials designed to distribute and transport the slurry to the surface of the wafer and distribute it evenly across the wafer. During the CMP process the wafer is typically held on a rotating carrier, which is pressed down against a rotating polishing table and spun in a circular motion. The portion of the table that comes in contact with the wafer is covered by a textured polishing pad. A CMP slurry is continuously applied to the polishing pad to facilitate and enhance the polishing process. Hard disk drive manufacturers use a process similar to this IC CMP process to smooth the surface of substrate disks before depositing magnetic media.

The characteristics that are important for an effective CMP process include:

- § High polishing rates, which increase productivity and throughput;
- § Selectivity, which is the ability to enhance the polishing of specific materials while at the same time inhibiting the polishing of other materials;
- § Uniform planarity, which minimizes unevenness as different layers are built on the wafer;
- § Uniformity of polishing, which means that different surface materials can be polished to the same degree at the same time across the wafer, leading to uniformity of all dies on the wafer;
- § Low defectivity, which means that the devices have fewer imperfections and therefore produce higher yield; and
- § Cost, because it is important for users to minimize their cost of manufacturing.

These attributes may be achieved through technical optimization of the CMP slurry and pad in conjunction with an appropriately designed CMP process. Prior to introducing new or different CMP slurries into its manufacturing process, an IC device manufacturer generally requires the product to be qualified in its processes through an extensive series of tests and evaluations. These qualifications are intended to ensure that the product will function properly in the manufacturing process, as well as to optimize its application. These tests may require changes to the CMP process or the CMP slurry. While this qualification process varies depending on numerous factors, it is generally quite costly and may take six or more months to complete. IC device manufacturers usually take the cost, time delay and impact

on production into account when they consider implementing or switching to a new CMP slurry or supplier.

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CMP enables IC device manufacturers to produce smaller, faster and more complex IC devices with fewer defects and a greater density of transistors and other electronic components than was previously possible. CMP provides the near perfectly smooth and flat surface required to create the associated intricate wiring patterns. By enabling IC device manufacturers to make smaller IC devices, CMP also allows them to increase the number of IC devices that fit on a wafer. This increase in the number of IC devices per wafer in turn increases the throughput, or the number of IC devices that can be manufactured in a given time period, and reduces the cost per chip. CMP also helps reduce the number of defective or substandard IC devices produced, which increases the device yield. Improvements in throughput and yield reduce an IC device manufacturer's unit production costs, and reducing costs is one of the highest priorities of a semiconductor manufacturer because return on its significant investment in manufacturing capacity can be enhanced by lower unit costs. More broadly, sustained growth in the semiconductor industry traditionally has been fueled by lower unit costs that have made IC devices more affordable in an expanding range of applications.

PRECISION POLISHING PROCESSES AND BENEFITS

Through our ESF initiative, we are applying our technical expertise in CMP slurry formulation, materials and polishing techniques to demanding surface modification and fine finish polishing applications in other industries where shaping, enabling and enhancing performance of surfaces is critical to success. We believe we can deliver improvements in production economics, figure precision and surface finish (smoothness and texture) for a variety of difficult-to-polish materials, potentially enabling the use of these materials in higher-value applications.

In addition, many of the production processes currently used in precision machining and polishing have been based on traditional, labor-intensive techniques, which are being replaced by computer-controlled, deterministic processes. Our CMP technology may help to accelerate this transition to automated processes in several areas by providing consistent, rapid results.

OUR PRODUCTS

CMP SLURRIES AND POLISHING PADS FOR IC DEVICES

We develop and produce CMP slurries of various formulations for a wide range of polishing applications including tungsten and dielectric materials, which currently represent the most common use of CMP in IC device manufacturing. Slurries for polishing tungsten and dielectrics are used primarily in memory devices and older generation logic devices. Dielectric slurries are used in inter layer dielectric (ILD) applications, which represent the more mature and cost-sensitive part of the CMP business, as well as in advanced dielectric applications, which require higher performing solutions such as those used for pre-metal dielectric and direct shallow trench isolation applications.

We also develop and manufacture slurry products for polishing copper, which is used primarily in the wiring of advanced IC logic devices to provide increased processing speed because copper wiring has lower electrical resistance than aluminum wiring. These products include different slurries for polishing the copper film, as well as for the thin barrier metal layer used to separate copper from the adjacent insulating material. We have multiple products to enable different integration schemes depending on specific customer needs and for a range of technology nodes.

We are currently developing and commercializing CMP polishing pads utilizing our own and licensed technology. CMP polishing pads are consumable materials used in the CMP process that work in conjunction with CMP slurries to facilitate the polishing process, as described above. We believe that CMP polishing pads represent a natural adjacency

to our CMP slurry business, and that there is value in co-developing slurries and pads to achieve technically optimized CMP solutions.

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CMP SLURRIES FOR THE DATA STORAGE INDUSTRY

We develop and produce CMP slurries for polishing the coating on rigid disks as well as magnetic heads in hard disk drives, which represents an extension of our core CMP slurry technology and manufacturing capabilities established for the semiconductor industry. We believe CMP significantly improves the surface finish of these coatings, resulting in greater storage capacity of the substrates, and also improves the production efficiency of manufacturers of hard disk drives by helping them increase their throughput and yield.

PRECISION OPTICS PRODUCTS AND SERVICES

Through our wholly-owned subsidiary, QED, we design and produce precision polishing equipment for advanced optics applications that allows customers to attain near-perfect shape (figure) and surface (finish) on a range of optical devices such as mirrors, lenses and prisms. Historically, advanced optics have been produced using labor-intensive processes so variability is common. QED has created an automated polishing system that enables rapid, deterministic and repeatable surface correction to the most demanding levels of precision and surface finish in dramatically less time than with traditional means. The machine uses Magneto-Rheological Finishing, QED's proprietary surface figuring and finishing technology, which employs magnetic fluids and sophisticated computer technology to polish a variety of shapes.

Fabrication of high quality, advanced optics is often hampered by the lack of accurate and affordable metrology. For example, interferometers, which measure the surface of an optic, traditionally are limited by the size and precision of the reference optic used. QED has developed a Subaperture Stitching Interferometry (SSI) workstation that enables the automatic capture of precise metrology data for large and/or strongly curved optical parts and gives the user a complete map of the optical surface. The SSI workstation measures portions of large optical parts, and digitally "stitches" these portions together into a single complete surface map. This map is needed to produce high precision optics to exacting tolerances.

INDUSTRY TRENDS

The semiconductor industry has experienced rapid growth over the past three decades, but it has also been cyclical. In our early history as an independent entity, our revenue grew despite the protracted semiconductor industry downturn from 2001 to 2003, primarily because CMP was used in only the most advanced IC devices and the most advanced technology continued to grow even though the overall semiconductor industry contracted. Since CMP has become more broadly used within the IC industry, the semiconductor industry downturn in fiscal 2005 affected us, and we believe this downturn contributed to our revenue decline in that year. The semiconductor industry recovered moderately in fiscal 2006.

As we enter fiscal 2007, and semiconductor technology continues to advance, we believe that CMP technical solutions are becoming more complex, and leading-edge technologies now often require some customization by customer, tool set and process integration approach. Leading-edge device designs are introducing more materials and processes into next generation chips. Further, as CMP technology has matured, we believe that semiconductor manufacturers' processes have become highly sensitive to CMP slurries, and customers now demand a high level of consistency and quality in CMP slurry products. Also, as CMP technology advances, customers are selecting suppliers much earlier in their development processes.

On a geographic basis, the Asia Pacific region continues to be the fastest growing region for IC manufacturing, as well as for our business, and we expect this trend to continue. We anticipate the worldwide market for CMP consumables

used by IC device manufacturers will grow in the future as a result of expected increases in the number of IC devices produced, the percentage of IC devices produced that require CMP, the number of CMP polishing steps used to produce these devices and new materials used in semiconductor devices. We believe that the increased emphasis on memory technology and the incorporation of advanced logic and memory products into digital consumer devices will continue to be a key growth driver in the industry over the long term and will parallel the industry's traditional emphasis on microprocessors for computing applications.

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We expect this anticipated growth will be somewhat mitigated by increased efficiencies in CMP slurry usage, driven by pressure on IC manufacturers to reduce costs, including the costs of the CMP process. For example, historically the semiconductor industry has migrated to increasingly larger wafers to manufacture chips. The predominant wafer size used for volume production today is 200 mm, or eight-inch, wafers, but a substantial number of new semiconductor manufacturing facilities (“fabs”) being built use 300 mm, or 12-inch, wafers to gain the economic advantages of a larger surface area. IC manufacturers use more CMP slurry on a 300 mm wafer, but use less slurry per device produced. However, we believe that the lower cost of the devices due to the economies of 300 mm manufacturing will spur additional growth of these devices due to greater affordability, consistent with past industry transitions to larger wafer sizes.

Our recent QED acquisition introduces us to the precision optics industry. We believe precision optics are pervasive, have new application growth potential and serve several existing large and growing markets such as semiconductor equipment, aerospace, defense, security and telecommunications. The precision optics industry appears to be transitioning from labor-intensive, artisan production methods for optical components to computer-controlled, deterministic production of high precision optics. The industry is also characterized by the need for higher precision in surface figure and finish, as well as a historical lack of significant advancements in state-of-the-art polishing methods.

STRATEGY

We believe our core competencies lie in our ability to shape, enable and enhance the performance of surfaces at an atomic level, as well as our ability to consistently and reliably deliver and support products around the world that meet our customers’ specifications. We intend to utilize these capabilities to strengthen and grow our core CMP business within the semiconductor and hard disk drive industries, and also to leverage our expertise in CMP process and slurry formulation into other technically demanding polishing applications that are synergistic to our core CMP slurry and pads businesses.

As we strengthen and grow our business, we intend to continue to implement the following strategic initiatives:

TECHNOLOGY LEADERSHIP

We believe that technology is vital to success in our CMP consumables and ESF businesses and we plan to continue to devote significant resources to research and development. We need to keep pace with the rapid technological advances in the semiconductor industry so we can continue to deliver a full line of CMP slurry products, over a range of technologies, that meet or exceed our customers' evolving needs. In October 2005 we opened our Asia Pacific technology center in Geino, Japan, which includes a clean room and provides polishing, metrology and product development capability to support our customers in the Asia Pacific region. Also, we built a technical service center in Taiwan with slurry formulation capability to provide expertise to our customers there; this technical service center acts as an extension of our Asia Pacific technology center. In addition, we moved our data storage laboratory to Singapore.

OPERATIONS EXCELLENCE

Our customers demand increasing performance of our products in terms of product quality and consistency and expect a highly reliable supply source. We believe the capacity and the location of our production facilities in the United States, Asia and Europe give us a competitive advantage in providing a dependable and predictable supply chain to meet our customers' CMP slurry and pad requirements in a consistent and timely manner. We believe that this ability to support a number of leading-edge customers with assurance of supply for business continuity is unique. We intend to continue to advance our strict quality systems in order to improve the uniformity and consistency of performance of

our CMP products. To support our operations excellence initiative, we have adopted the concepts of Six Sigma across our Company; Six Sigma is a systematic, data-driven approach and methodology for improving quality by reducing variability in processes. We have made productivity and efficiency gains through this program in fiscal 2005 and 2006, and expect more in fiscal 2007. We also have extended our Six Sigma initiative to include joint projects with customers.

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CONNECTING WITH CUSTOMERS

We believe that building close relationships with our customers is another cornerstone for long-term success in our business. We work closely with our customers to identify and develop new and better CMP consumables, to integrate our products into their manufacturing processes, and to assist them with supply, warehousing and inventory management. We have devoted significant resources to enhancing our close customer relationships and we are committed to continuing this effort. We believe that we are unique in our ability to support a number of leading-edge customers through business scale in CMP consumables.

We also believe in locating our employees in the same geographies as our customers. As more of our business shifts to the Asia Pacific region, we have reinforced our customer commitment with our Asia Pacific technology center in Geino, Japan, which we believe enhances our ability to provide optimized CMP solutions to our customers in this region. We built a technical service center in Taiwan for slurry formulation capability for our customers there. In April 2006 we began selling directly to customers in Taiwan, rather than through a distributor, in order to better serve them. In addition, we moved the portion of our business that serves the hard disk drive market to Singapore, because Southeast Asia is an important manufacturing region for a number of participants in this industry. By next year, we plan to add additional pad manufacturing capability in Taiwan and are exploring alternatives to add slurry manufacturing capabilities there as well. All of these initiatives represent our belief that by working closely with customers at a local level we can leverage our global knowledge to their benefit.

ENGINEERED SURFACE FINISHES INITIATIVE

In addition to strengthening and growing our core CMP business, we also are leveraging our CMP experience and technology developed for the semiconductor industry to explore new applications and products to diversify and grow our business in other demanding applications in which we believe our technical ability to shape, enable and enhance the performance of surfaces at an atomic level may provide improved productivity or previously unseen surface performance. Our slurries for data storage polishing applications represent one example, and we are also pursuing opportunities in optics, optoelectronics, flat panel displays and metal finishing.

In pursuit of this initiative, we are supplementing our internal development efforts with some externally acquired technologies and businesses. For example, in October 2005 we acquired substantially all of the assets and assumed certain current liabilities of Surface Finishes, which was a privately-held company established in 1949 that specializes in precision machining techniques at the sub-nanometer level. This acquisition provides us with commercial finishing capabilities that we expect will present opportunities to facilitate the introduction of our internally developed technology to customers beyond the semiconductor industry, and afford access to a variety of markets that benefit from precision surface finish, but that we do not currently serve.

In July 2006 we acquired substantially all of the assets, including certain associated proprietary technology and intellectual property, and assumed certain current liabilities of QED. QED was a privately-held company that specializes in unique, patented polishing and metrology systems for shaping and polishing high precision optics. The optics industry shares a number of attributes with the semiconductor market: the value of precise surface finish; employing some of the same materials like silicon and aluminum; and some overlap in customer base because photolithography equipment and optical inspection equipment for semiconductor and flat panel displays rely on the kind of precision optics enabled by QED's technology.

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CUSTOMERS, SALES AND MARKETING

Within the semiconductor industry, our customers are primarily producers of logic IC devices, producers of memory IC devices and IC foundries. Often, logic and memory companies outsource all or a portion of the production of physical devices to foundries, which provide contract manufacturing services, in order to avoid the high cost of constructing and operating a fab or in cases where they need additional capacity.

Our sales process begins long before the actual sale of our products and occurs on a number of levels. Due to the long lead times from research and development to product commercialization and sales, we have fundamental research teams who collaborate with customers on emerging applications years before the products are required by the market. We also have development teams who coordinate with our customers, using our research and development facilities and capabilities to design CMP products tailored to their precise needs. Next, our applications support teams work with customers to integrate our products into their manufacturing processes. Finally, as part of our sales process, our logistics and sales personnel provide supply, warehousing and inventory management to our customers. Through our interactive approach, we are able to build close relationships with our customers in a variety of areas.

We market our products primarily through direct sales to our customers. In the past, we also have relied to varying degrees on distributors. However, over the last few years we have reduced the number of resellers that distribute our products in situations where we have had sufficient business scale to support direct sales and where we have seen strategic benefit. For example, in April 2006 we began selling our products directly to customers in Taiwan rather than through Marketech, an independent distributor, although we still use Marketech to distribute our products in China. We believe this strategy is one way we can achieve our goal of staying connected with our customers.

In response to significant growth in the IC device manufacturing industry in Asia, we have implemented the following initiatives:

- Increased the number of sales and marketing, technical and customer support personnel in the Asia Pacific region;
 - Transitioned to selling directly to customers in Taiwan, rather than through a distributor, as discussed above;
- Opened our Asia Pacific technology center, which includes a clean room and provides polishing, metrology and product development capability to support our customers in this region;
- Built a technical service center in Taiwan for slurry formulation capability for our customers there, as an extension of our Asia Pacific technology center; and
- Relocated the portion of our business that serves the hard disk drive market to Singapore, because Southeast Asia is an important manufacturing region for a number of participants in this industry.

Our QED subsidiary supports customers in the semiconductor equipment, aerospace, defense, security and telecommunications markets, and counts among its worldwide customers leading precision optics manufacturers and the United States government. QED has strived to maintain a sustainable and loyal customer base.

In fiscal 2006, our five largest customers accounted for approximately 44% of our revenue, with Marketech and Taiwan Semiconductor Manufacturing Company (TSMC) accounting for approximately 19% and 10% of our revenue, respectively. Effective April 2006, with our transition to direct sales in Taiwan, we began selling directly to TSMC, our largest end customer, and other customers in Taiwan rather than through Marketech. For additional information on concentration of customers, refer to Note 2 of "Notes to the Consolidated Financial Statements" included in Item 8 of Part II of this Form 10-K.

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COMPETITION

We compete in the CMP consumables industry, which is characterized by rapid advances in technology and demanding product quality and consistency requirements. We face competition from other CMP consumables suppliers, and we also may face competition in the future from significant changes in technology or emerging technologies.

We believe that customers make supplier decisions based on three factors, in this order of priority: first, product performance; second, supply assurance, including the ability to reliably deliver a high level of consistency and quality in CMP slurry products; and third, product price. We believe that rapid incorporation of CMP technology and growth of the CMP industry, combined with our customers' desires to gain purchasing leverage and lower their cost of ownership, have led to greater competitive activity among, and pricing pressure on, CMP slurry suppliers.

Our competitors range from small companies that compete with a single product and/or in a single geographic region to divisions of global companies with multiple lines of IC manufacturing products. However, we believe we have more CMP slurry business than each of our competitors. In our view, we are the only CMP slurry supplier today that serves a broad range of customers by offering and supporting a full line of CMP slurry products for all major applications over a range of technologies, and that has a proven track record of supplying these products globally in high volumes with the attendant required high level of technical support services. We intend to continue to invest in our extensive manufacturing and technological infrastructures, which we believe give us a competitive advantage and allow us to deliver the supply assurance that is important to our customers.

Our QED subsidiary operates in the precision optics industry. There are few direct competitors for QED's technologies because they are relatively new and unique. We believe the main alternative to QED's technology is non-adoption and continued reliance on traditional artisan-based methods of surface finishing.

RAW MATERIALS SUPPLY

Fumed metal oxides, such as fumed silica and fumed alumina, are significant raw materials we use in many of our CMP slurries. In an effort to mitigate our raw materials supply risks, we have entered into multi-year supply agreements with a number of suppliers for the purchase of raw materials, including agreements with Cabot Corporation for the purchase of certain amounts and types of fumed silica and fumed alumina. For additional information regarding these agreements, refer to "Tabular Disclosure of Contractual Obligations", included in "Management's Discussion and Analysis of Financial Condition and Results of Operations", in Item 7 of Part II of this Form 10-K. In the interest of supply assurance, our strategy is to secure multiple sources of raw materials and qualify those sources as necessary to ensure our supply of raw materials remains uninterrupted.

RESEARCH, DEVELOPMENT AND TECHNICAL SUPPORT

We believe that technology is vital to success in the CMP business as well as in our other initiatives, and we plan to continue to devote significant resources to research and development, and balance our efforts between the shorter-term market needs and the longer-term investments required of us as the technology leader.

Our technology efforts are currently focused on four main areas:

- Research related to fundamental CMP technology;
- Development and formulation of new and enhanced CMP slurry and pad products;

- Process development to support rapid and effective commercialization of new products; and
- Evaluation of new polishing applications outside of the semiconductor industry.

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We invest in fundamental CMP technology and materials research, in order to be prepared to meet the dynamic needs of advanced technology, investing well in advance of the market need because there are long lead times from research and development to commercialization and sales. We focus on such areas as: engineered polymer and particles; advanced metrology; and mechanistic understanding and emerging applications. As a result of our investment in research and development, we have a fundamental understanding of the CMP process, chemistry, and mechanics that we believe allows us to quickly and efficiently tailor our applications to meet the needs of our leading-edge customers.

We also develop and formulate new and enhanced CMP consumables and new CMP processes. We believe our leadership in this area depends in part on our ability to develop CMP applications tailored to our customers' needs, so we have assembled dedicated development teams that work closely with customers to identify their specific technology and manufacturing challenges and to translate these challenges into viable CMP process solutions. We also remain focused on supporting our customers in the use of our products in their processes, so we have technical teams dedicated to problem-solving and working with our customers daily at their facilities.

Beyond CMP for the semiconductor and data storage industries, we are also increasing internal research and development efforts related to our ESF initiative. We are leveraging our technical expertise in CMP formulation, materials and polishing techniques and applying it to demanding surface modification and fine finish polishing applications in other industries where shaping, enabling and enhancing performance is critical to success. We believe that a number of application areas we are currently developing represent natural adjacencies to our core CMP business and technology, and include uses in fields such as optics, optoelectronics, flat panel displays and metal finishing.

We believe competitive advantage lies in technology leadership, and that our investments in research and development provide us with leading-edge polishing and metrology capabilities to support the most advanced and challenging customer technology requirements on a global basis. In fiscal 2006, 2005 and 2004 we incurred approximately \$48.1 million, \$43.0 million and \$44.0 million, respectively, in research and development expenses. Investments in research and development property, plant and equipment are capitalized and depreciated over their useful lives. We operate a research and development facility in Aurora, Illinois, which is staffed by a team that includes experts from the semiconductor industry and scientists from key disciplines required for the development of high-performance CMP products. This facility features a state-of-the-art Class 1 clean room and advanced equipment for product development. We also have invested in 300 mm polishing and metrology capabilities to remain aligned with our leading-edge customers and to provide us with the ability to replicate their CMP activities in our clean room. In addition, we operate a technology center in Japan that we believe enhances our ability to provide optimized CMP solutions to our customers in the Asia Pacific region, and underscores our commitment both to continuing to invest in our technology infrastructure to maintain our technology leadership, and to becoming even more responsive to the needs of our customers. Other examples of this commitment include our technical service center in Taiwan and our data storage laboratory in Singapore that provide additional slurry formulation capability.

INTELLECTUAL PROPERTY

Our intellectual property is important to our success and ability to compete. As of October 31, 2006, we had 137 active U.S. patents and 103 pending U.S. patent applications. In most cases we file counterpart foreign patent applications. Many of these patents are important to our continued development of new and innovative products for CMP and related processes, as well as for new business initiatives, such as ESF. Our patents have a range of duration and we do not expect to lose any material patent through expiration in the next five years. We attempt to protect our intellectual property rights through a combination of patent, trademark, copyright and trade secret laws, as well as employee and third party nondisclosure and assignment agreements. We vigorously and proactively pursue any parties that attempt to compromise our investments in research and development by infringing our intellectual property. For example, we recently were successful in an action we brought before the United States International Trade

Commission (ITC) concerning Cheil Industries, Inc. and its importation and sale within the United States of certain CMP slurries that infringe certain of our patents. The ITC's actions served to grant our request to prevent this competitor from, among other things, importing any infringing products into the U.S.

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We also may acquire intellectual property from others to enhance our intellectual property portfolio. For example, in June 2006 we entered into a patent assignment agreement with the International Business Machines Corporation (IBM). Under the terms of the agreement, we acquired a number of patents and associated rights relating to CMP slurry technology from IBM, including various applications such as copper, copper barrier, tungsten, and dielectrics, among others. We believe these technology rights will enhance our competitive advantage by providing us with future product development opportunities and expanding our already substantial intellectual property portfolio. Furthermore, with our QED and Surface Finishes acquisitions we acquired certain associated proprietary technology and intellectual property.

ENVIRONMENTAL MATTERS

Our facilities are subject to various environmental laws and regulations, including those relating to air emissions, wastewater discharges, the handling and disposal of solid and hazardous wastes, and occupational safety and health. We believe that our facilities are in substantial compliance with applicable environmental laws and regulations. We have incurred, and will continue to incur, capital and operating expenditures and other costs in complying with these laws and regulations in both the United States and abroad. However, we currently do not anticipate that the future costs of environmental compliance will have a material adverse effect on our business, financial condition or results of operations.

EMPLOYEES

We believe we have a world-class team of scientists, technologists, engineers and other human resources who make our Company successful. As of October 31, 2006, we employed 742 individuals, including 357 in operations, 208 in research and development, 85 in sales and marketing and 92 in administration. None of our employees are covered by collective bargaining agreements. We have not experienced any work stoppages and in general consider our relations with our employees to be good.

FINANCIAL INFORMATION ABOUT GEOGRAPHIC AREAS

We sell our products worldwide. Our geographic coverage allows us to draw on business and technical expertise from a worldwide workforce, provides stability to our operations and revenue streams to offset geography-specific economic trends, and offers us an opportunity to take advantage of new markets for products.

For more financial information about geographic areas, see Note 17 of “Notes to the Consolidated Financial Statements” included in Item 8 of Part II of this Form 10-K.

AVAILABLE INFORMATION

Our annual reports on Form 10-K, quarterly reports on Form 10-Q, definitive proxy statements on Form 14a, current reports on Form 8-K, and any amendments to those reports are made available free of charge on our Company website, www.cabotcmp.com, as soon as reasonably practicable after such reports are filed with the Securities and Exchange Commission (SEC). Statements of changes in beneficial ownership of our securities on Form 4 by our executive officers and directors are made available on our Company website by the end of the business day following the submission to the SEC of such filings. In addition, the SEC’s website, www.sec.gov, contains reports, proxy statements, and other information regarding reports that we file electronically with the SEC.

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ITEM 1A. RISK FACTORS

We do not believe there have been any material changes in our risk factors since the filing of our Annual Report on Form 10-K for the fiscal year ended September 30, 2005. However, we may update our risk factors in our SEC filings from time to time for clarification purposes or to include additional information, at management's discretion, even when there have been no material changes.

RISKS RELATING TO OUR BUSINESS

WE HAVE A NARROW PRODUCT RANGE AND OUR PRODUCTS MAY BECOME OBSOLETE, OR TECHNOLOGICAL CHANGES MAY REDUCE OR LIMIT INCREASES IN CMP CONSUMPTION

Our business is substantially dependent on a single class of products, CMP slurries, which historically has accounted for almost all of our revenue. Our business would suffer if these products became obsolete or if consumption of these products decreased. Our success depends on our ability to keep pace with technological changes and advances in the semiconductor industry and to adapt, improve and customize our products for advanced IC applications in response to evolving customer needs and industry trends. Since its inception, the semiconductor industry has experienced rapid technological changes and advances in the design, manufacture, performance and application of IC devices, and our customers continually pursue lower cost of ownership of materials consumed in their manufacturing processes, including CMP slurries. We expect these technological changes and advances, and this drive toward lower costs, to continue in the future. Emerging technologies in the semiconductor industry, as well as our customers' efforts to reduce consumption of CMP slurries, could render our products less important to the IC device manufacturing process.

A SIGNIFICANT AMOUNT OF OUR BUSINESS COMES FROM A LIMITED NUMBER OF LARGE CUSTOMERS AND OUR REVENUE AND PROFITS COULD DECREASE SIGNIFICANTLY IF WE LOST ONE OR MORE OF THEM AS CUSTOMERS

Our customer base is concentrated among a limited number of large customers. One or more of these principal customers may stop buying CMP slurries from us or may substantially reduce the quantity of CMP slurries they purchase from us. Our principal customers also hold considerable purchasing power, which can impact the pricing and terms of sale of our products. Any deferral or significant reduction in CMP slurries sold to these principal customers, or a significant number of smaller customers, could seriously harm our business, financial condition and results of operations.

In fiscal 2006, our five largest customers accounted for approximately 44% of our revenue, with Marketech, a distributor, and TSMC accounting for approximately 19% and 10% of our revenue, respectively. Effective April 2006, with our transition to direct sales in Taiwan, we began selling directly to TSMC, our largest end customer, and our other customers in Taiwan rather than through Marketech. In fiscal 2005, our five largest customers accounted for approximately 53% of our revenue, with Marketech accounting for approximately 35% of our revenue.

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OUR BUSINESS COULD BE SERIOUSLY HARMED IF OUR EXISTING OR FUTURE COMPETITORS DEVELOP SUPERIOR SLURRY PRODUCTS, OFFER BETTER PRICING TERMS OR SERVICE, OR OBTAIN CERTAIN INTELLECTUAL PROPERTY RIGHTS

Competition from current CMP slurry manufacturers or new entrants to the CMP slurry market could seriously harm our business and results of operations. Competition from other existing providers of CMP slurries could continue to increase, and opportunities exist for other companies with sufficient financial or technological resources to emerge as potential competitors by developing their own CMP slurry products. Increased competition has and may continue to impact the prices we are able to charge for our slurry products as well as our overall business. In addition, our competitors could have or obtain intellectual property rights which could restrict our ability to market our existing products and/or to innovate and develop new products.

ANY PROBLEM OR INTERRUPTION IN SUPPLY OF OUR MOST IMPORTANT RAW MATERIALS, INCLUDING FUMED METAL OXIDES, COULD DELAY OUR SLURRY PRODUCTION AND ADVERSELY AFFECT OUR SALES

Our business would suffer from any problem or interruption in our supply of the key raw materials we use in our CMP slurries, including fumed alumina and fumed silica. For example, Cabot Corporation continues to be our primary supplier of particular amounts and types of fumed alumina and fumed silica. We believe it would be difficult to promptly secure alternative sources of key raw materials, including fumed metal oxides, in the event one of our suppliers becomes unable to supply us with sufficient quantities of raw materials that meet the quality and technical specifications required by our customers. In addition, contractual amendments to the existing agreements with, or non-performance by, our suppliers could adversely affect us.

Also, if we change the supplier or type of key raw materials, such as fumed metal oxides, we use to make our CMP slurries, or are required to purchase them from a different manufacturer or manufacturing facility or otherwise modify our products, in certain circumstances our customers might have to requalify our CMP slurries for their manufacturing processes and products. The requalification process could take a significant amount of time and expense to complete and could motivate our customers to consider purchasing products from our competitors, possibly interrupting or reducing our sales of CMP slurries to these customers.

WE ARE SUBJECT TO RISKS ASSOCIATED WITH OUR FOREIGN OPERATIONS

We currently have operations and a large customer base outside of the United States. Approximately 79% and 78% of our revenue was generated by sales to customers outside of the United States for fiscal 2006 and 2005, respectively. We encounter risks in doing business in certain foreign countries, including, but not limited to, adverse changes in economic and political conditions, as well as difficulty in enforcing business and customer contracts and agreements, including protection of intellectual property rights.

BECAUSE WE HAVE LIMITED EXPERIENCE IN BUSINESS AREAS OUTSIDE OF CMP SLURRIES, EXPANSION OF OUR BUSINESS INTO NEW PRODUCTS AND APPLICATIONS MAY NOT BE SUCCESSFUL

An element of our strategy has been to leverage our current customer relationships and technological expertise to expand our CMP business from CMP slurries into other areas, such as polishing pads. Additionally, under our engineered surface finishes initiative we are actively pursuing a variety of surface modification applications, such as

high precision optics. Expanding our business into new product areas could involve technologies, production processes and business models in which we have limited experience, and we may not be able to develop and produce products or provide services that satisfy customers' needs or we may be unable to keep pace with technological or other developments. Also, our competitors may have or obtain intellectual property rights which could restrict our ability to market our existing products and/or to innovate and develop new products.

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BECAUSE WE RELY HEAVILY ON OUR INTELLECTUAL PROPERTY, OUR FAILURE TO ADEQUATELY OBTAIN OR PROTECT IT COULD SERIOUSLY HARM OUR BUSINESS

Protection of intellectual property is particularly important in our industry because CMP slurry and pad manufacturers develop complex technical formulas for CMP products which are proprietary in nature and differentiate their products from those of competitors. Our intellectual property is important to our success and ability to compete. We attempt to protect our intellectual property rights through a combination of patent, trademark, copyright and trade secret laws, as well as employee and third-party nondisclosure and assignment agreements. Due to our international operations, we pursue protection in different jurisdictions, which may require varying degrees of protection, and we cannot provide assurance that we can obtain adequate protection in each such jurisdiction. Our failure to obtain or maintain adequate protection of our intellectual property rights for any reason could seriously harm our business.

WE MAY PURSUE ACQUISITIONS OF, INVESTMENTS IN, AND STRATEGIC ALLIANCES WITH OTHER ENTITIES, WHICH COULD DISRUPT OUR OPERATIONS AND HARM OUR OPERATING RESULTS IF THEY ARE UNSUCCESSFUL

We expect to continue to make investments in companies, either through acquisitions, investments or alliances, in order to supplement our internal growth and development efforts. Acquisitions and investments involve numerous risks, including the following: difficulties in integrating the operations, technologies, products and personnel of acquired companies; diversion of management's attention from normal daily operations of the business; potential difficulties in entering markets in which we have limited or no direct prior experience and where competitors in such markets have stronger market positions; potential difficulties in operating new businesses with different business models; potential difficulties with regulatory or contract compliance in areas in which we have limited experience; initial dependence on unfamiliar supply chains or relatively small supply partners; insufficient revenues to offset increased expenses associated with acquisitions; potential loss of key employees of the acquired companies; or inability to effectively cooperate and collaborate with our alliance partners.

Further, we may never realize the perceived or anticipated benefits of a business combination or investments in other entities. Acquisitions by us could have negative effects on our results of operations, such as contingent liabilities, gross profit margins, amortization charges related to intangible assets and other effects of accounting for the purchases of other business entities. Investments and acquisitions of technology and development stage companies are inherently risky because these businesses may never develop, and we may incur losses related to these investments. In addition, we may be required to write down the carrying value of these investments to reflect other than temporary declines in their value, which could harm our business and results of operations.

DEMAND FOR OUR PRODUCTS AND OUR BUSINESS MAY BE ADVERSELY AFFECTED BY WORLDWIDE ECONOMIC AND INDUSTRY CONDITIONS

Our business is affected by economic and industry conditions and it is extremely difficult to predict sales of our products given uncertainties in these factors. There are several factors that make it difficult for us to predict future revenue trends for our business, including: the cyclical nature of the semiconductor industry; short order to delivery time for our products and the associated lack of visibility to future customer orders; and quarter to quarter changes in our revenue regardless of industry strength. Some factors that affect demand for our products are driven by variables such as our customer's production of logic versus memory devices, customer integration schemes, share gains and losses and pricing changes by us and our competitors.

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OUR INABILITY TO ATTRACT AND RETAIN KEY PERSONNEL COULD CAUSE OUR BUSINESS TO SUFFER

If we fail to attract and retain the necessary managerial, technical and customer support personnel, our business and our ability to maintain existing and obtain new customers, develop new products and provide acceptable levels of customer service could suffer. Competition for qualified personnel, particularly those with significant experience in the CMP and IC device industries, is intense. The loss of services of key employees could harm our business and results of operations.

RISKS RELATING TO THE MARKET FOR OUR COMMON STOCK

THE MARKET PRICE MAY FLUCTUATE SIGNIFICANTLY AND RAPIDLY

The market price of our common stock has fluctuated and could continue to fluctuate significantly as a result of factors such as: economic and stock market conditions generally and specifically as they may impact participants in the semiconductor and related industries; changes in financial estimates and recommendations by securities analysts who follow our stock; earnings and other announcements by, and changes in market evaluations of, us or participants in the semiconductor and related industries; changes in business or regulatory conditions affecting us or participants in the semiconductor and related industries; announcements or implementation by us, our competitors, or our customers of technological innovations, new products or different business strategies; and trading volume of our common stock.

ANTI-TAKEOVER PROVISIONS UNDER OUR CERTIFICATE OF INCORPORATION AND BYLAWS AND OUR RIGHTS PLAN MAY DISCOURAGE THIRD PARTIES FROM MAKING AN UNSOLICITED BID FOR OUR COMPANY

Our certificate of incorporation, our bylaws, our rights plan and various provisions of the Delaware General Corporation Law may make it more difficult to effect a change in control of our Company. For example, our amended and restated certificate of incorporation authorizes our Board of Directors to issue up to 20 million shares of blank check preferred stock and to attach special rights and preferences to this preferred stock. Also our amended and restated certificate of incorporation provides for the division of our Board of Directors into three classes as nearly equal in size as possible with staggered three-year terms. In addition, the rights issued to our stockholders under our rights plan may make it more difficult or expensive for another person or entity to acquire control of us without the consent of our Board of Directors.

We have adopted change in control arrangements covering our executive officers and other key employees. These arrangements provide for a cash severance payment, continued medical benefits and other ancillary payments and benefits upon termination of service of a covered employee's employment following a change in control.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None

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ITEM 2. PROPERTIES

Our principal U.S. facilities that we own consist of:

- § a global headquarters and research and development facility in Aurora, Illinois, comprising approximately 200,000 square feet;
- § a commercial dispersion plant and distribution center in Aurora, Illinois, comprising approximately 175,000 square feet;
- § a commercial manufacturing plant in Aurora, Illinois, comprising approximately 48,000 square feet;
- § an additional 13.2 acres of vacant land in Aurora, Illinois, to accommodate the possibility of future growth; and
- § a facility in Addison, Illinois, comprising approximately 15,000 square feet.

In addition, we lease a facility in Rochester, New York, comprising approximately 21,000 square feet.

Our principal foreign facilities that we own consist of:

- § a commercial dispersion plant and distribution center in Geino, Japan, comprising approximately 113,000 square feet;
- § a research and development facility in Geino, Japan, comprising approximately 20,000 square feet.

Our principal foreign facilities that we lease consist of:

- § a commercial manufacturing plant, research and development facility and business office in Singapore, comprising approximately 24,000 square feet;
- § a commercial dispersion plant in Barry, Wales, comprising approximately 22,000 square feet; and
- § an office, laboratory and pilot plant in Hsin-Chu, Taiwan, comprising approximately 20,000 square feet.

We believe that our current facilities are suitable and adequate for their intended purpose and provide us with sufficient capacity and capacity expansion opportunities and technological capability to meet our current and expected demand in the foreseeable future.

ITEM 3. LEGAL PROCEEDINGS

We are not currently involved in any material legal proceedings.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

None.

Table of Contents**EXECUTIVE OFFICERS OF THE REGISTRANT**

Set forth below is information concerning our executive officers and their ages as of October 31, 2006.

NAME	AGE	POSITION
William P. Noglows	48	Chairman of the Board, President and Chief Executive Officer
H. Carol Bernstein	46	Vice President, Secretary and General Counsel
Jean Pol Delrue	59	Vice President of Global Sales
William S. Johnson	49	Vice President and Chief Financial Officer
Daniel J. Pike	43	Vice President of Corporate Development
Stephen R. Smith	47	Vice President of Marketing
Clifford L. Spiro	52	Vice President of Research and Development
Adam F. Weisman	44	Vice President of Business Operations
Daniel S. Wobby	43	Vice President of Asia Pacific Region
Thomas S. Roman	45	Principal Accounting Officer and Corporate Controller

WILLIAM P. NOGLOWS has served as our Chairman, President and Chief Executive Officer since November 2003. Mr. Noglows had previously served as a director of our Company from January 2000 until April 2002. Prior to joining us, Mr. Noglows served as an Executive Vice President of Cabot Corporation from 1998 to June 2003. Prior to that, Mr. Noglows held various management positions at Cabot Corporation including General Manager of Cabot Corporation's Cab-O-Sil Division, where he was one of the primary founders of Cabot Microelectronics when its business was a division of Cabot Corporation, and was responsible for identifying and encouraging the development of the CMP application. Mr. Noglows received his B.S. in Chemical Engineering from the Georgia Institute of Technology.

H. CAROL BERNSTEIN has served as our Vice President, Secretary and General Counsel since August 2000. From January 1998 until joining us, Ms. Bernstein served as the General Counsel and Director of Industrial Technology Development of Argonne National Laboratory, which is operated by the University of Chicago for the United States Department of Energy. From May 1985 until December 1997, she served in various positions with the IBM Corporation, culminating in serving as an Associate General Counsel, and was the Vice President, Secretary and General Counsel of Advantis Corporation, an IBM joint venture. Ms. Bernstein received her B.A. from Colgate University and her J.D. from Northwestern University; she is a member of the Bar of the states of Illinois and New York.

JEAN POL DELRUE has served as our Vice President of Global Sales since April 2005. Previously, he was our Vice President of European Business Region since July 2004. He also served as our European Business Manager from June 2001 to July 2004. Prior to joining us, Dr. Delrue worked for Ebara Precision Machinery Europe from January 1995 to June 2001, culminating in serving as the Vice President of CMP Europe. Prior to that, he served as the Business and Technical Development Director and Member of the Management Board at Riber Instruments SA. Dr. Delrue holds an Executive M.B.A. from the Centre de Perfectionnement des Affaires in Paris, France, a Ph.D. in Physical Chemistry from Belgium's University of Mons, and has performed post doctorate work in chemical engineering at Stanford University.

WILLIAM S. JOHNSON has served as our Vice President and Chief Financial Officer since April 2003. Prior to joining us, Mr. Johnson served as Executive Vice President and Chief Financial Officer for Budget Group, Inc. from

August 2000 to March 2003. Before that, Mr. Johnson spent 16 years at BP Amoco in various senior finance and management positions, the most recent of which was President of Amoco Fabrics and Fibers Company. Mr. Johnson received his B.S. in Mechanical Engineering from the University of Oklahoma and his M.B.A. from the Harvard Business School.

DANIEL J. PIKE has served as our Vice President of Corporate Development since January 2004 and prior to that was our Vice President of Operations from December 1999. Mr. Pike served as Cabot Corporation's Director of Global Operations from 1996 to 1999. Prior to that, Mr. Pike worked for FMC Corporation. Mr. Pike received his B.S. in Chemical Engineering from the University of Buffalo and his M.B.A. from the Wharton School of Business of the University of Pennsylvania.

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STEPHEN R. SMITH has served as our Vice President of Marketing since September 2006, and previously was our Vice President of Marketing and Business Management since April 2005 and our Vice President of Marketing and Sales from October 2001. Prior to joining us, Mr. Smith served as Vice President, Sales & Business Development for Buildpoint Corporation from 2000 to October 2001. Prior to that, Mr. Smith spent 17 years at Tyco Electronics Group, formerly known as AMP Incorporated, in various management positions. Mr. Smith earned a B.S. in Industrial Engineering from Grove City College and an M.B.A. from Wake Forest University.

CLIFFORD L. SPIRO has served as Vice President of Research and Development since December 2003. Prior to joining us, Dr. Spiro served as Vice President of Research and Development at Ondeo-Nalco from 2001 through November 2003. Prior to that, Dr. Spiro held research and development management and senior technology positions at the General Electric Company from 1980 through 2001, the most recent of which was Global Manager - Technology for Business Development. Dr. Spiro received his B.S. in Chemistry from Stanford University and his Ph.D. in Chemistry from the California Institute of Technology.

ADAM F. WEISMAN has served as our Vice President of Business Operations since September 2006, and prior to that was our Vice President of Operations. Before joining us, Mr. Weisman held various engineering and senior operations management positions with the General Electric Company from 1988 through 2004, including having served as the General Manager of Manufacturing for GE Plastics - Superabrasives, and culminating in serving as the Executive Vice President of Operations for GE Railcar Services. Prior to joining GE, he worked as an engineering team leader and pilot plant manager for E.I. Du Pont de Nemours & Company. Mr. Weisman holds a B.S. in Ceramic Engineering from Alfred University.

DANIEL S. WOBBY has served as our Vice President of Asia Pacific Region since September 2005. Prior to that, Mr. Wobby served as Vice President of Greater China and Southeast Asia starting in February 2004. Mr. Wobby previously was our Corporate Controller and Principal Accounting Officer from 2000 to 2004. From 1989 to 2000, Mr. Wobby held various accounting and operations positions with Cabot Corporation culminating in serving as Director of Finance. Mr. Wobby earned a B.S. in Accounting from St. Michael's College and an M.B.A. from the University of Chicago's Graduate School of Business.

THOMAS S. ROMAN has served as our Corporate Controller and Principal Accounting Officer since February 2004 and previously served as our North American Controller. Prior to joining us in April 2000, Mr. Roman was employed by FMC Corporation in various financial reporting, tax and audit positions. Before that, Mr. Roman worked for Gould Electronics and Arthur Andersen LLP. Mr. Roman is a C.P.A. and earned a B.S. in Accounting from the University of Illinois and an M.B.A. from DePaul University's Kellstadt Graduate School of Business.

Table of Contents**PART II****ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES**

Our common stock has traded publicly on the NASDAQ Global Select Market (formerly the NASDAQ National Market) under the symbol "CCMP" since our initial public offering in April 2000. The following table sets forth the range of quarterly high and low closing sales prices for our common stock on the NASDAQ Global Select Market.

		HIGH	LOW
Fiscal 2005			
	First Quarter	40.80	30.58
	Second Quarter	38.37	30.43
	Third Quarter	31.77	27.39
	Fourth Quarter	33.10	27.74
Fiscal 2006			
	First Quarter	32.33	28.26
	Second Quarter	37.14	28.82
	Third Quarter	38.25	25.84
	Fourth Quarter	32.34	26.21
Fiscal 2007 First Quarter (through October 31, 2006)		31.25	28.36

As of October 31, 2006, there were approximately 1,025 holders of record of our common stock. No dividends were declared or paid in either fiscal 2006 or fiscal 2005 and we have no current plans to pay cash dividends in the future.

ISSUER PURCHASES OF EQUITY SECURITIES

Period	Total Number of Shares Purchased	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (in thousands)
July 1 through July 31, 2006	–	–	–	\$ 32,005
Aug. 1 through Aug. 31, 2006	269,363	\$ 29.70	269,363	24,004
Sept. 1 through Sept. 30, 2006	–	–	–	24,004
Total	269,363	\$ 29.70	269,363	\$ 24,004

In the fourth quarter of fiscal 2005, we completed our initial \$25.0 million share repurchase program, which was authorized in July 2004. On October 27, 2005, we announced that our Board of Directors had authorized a new share repurchase program for up to \$40.0 million of our outstanding common stock. Shares are repurchased from time to time, depending on market conditions, in open market transactions, at management's discretion. We fund share

repurchases from our existing cash balance. The program, which became effective on the authorization date, may be suspended or terminated at any time, at the Company's discretion. We view the program as an effective means to return cash to shareholders.

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ITEM 6. SELECTED FINANCIAL DATA

The following selected financial data for each year of the five-year period ended September 30, 2006, has been derived from the audited consolidated financial statements. Certain reclassifications of prior fiscal year amounts have been made to conform to the current period presentation.

The information set forth below is not necessarily indicative of results of future operations and should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations and the consolidated financial statements and notes to those statements included in Items 7 and 8 of Part II of this Form 10-K, as well as Risk Factors included in Item 1A of Part I of this Form 10-K.

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CABOT MICROELECTRONICS CORPORATION
SELECTED FINANCIAL DATA - FIVE YEAR SUMMARY

(Amounts in thousands, except per share amounts)

	Year Ended September 30,				
	2006	2005	2004	2003	2002
Consolidated Statement of					
Income Data:					
Revenue	\$ 320,795	\$ 270,484	\$ 309,433	\$ 251,665	\$ 235,165
Cost of goods sold	171,758	141,282	156,805	124,269	113,067
Gross profit	149,037	129,202	152,628	127,396	122,098
Operating expenses:					
Research, development and technical	48,070	43,010	44,003	41,516	33,668
Selling and marketing	21,115	16,989	16,225	11,221	9,667
General and administrative	34,319	25,427	22,691	18,565	17,803
Litigation settlement	-	-	-	-	1,000
Purchased in-process research and development	1,120	-	-	-	-
Total operating expenses	104,624	85,426	82,919	71,302	62,138
Operating income	44,413	43,776	69,709	56,094	59,960
Other income (expense), net	4,111	2,747	139	(27)	763
Income before income taxes	48,524	46,523	69,848	56,067	60,723
Provision for income taxes	15,576	14,050	23,120	18,334	20,038
Net income	\$ 32,948	\$ 32,473	\$ 46,728	\$ 37,733	\$ 40,685
Basic earnings per share	\$ 1.36	\$ 1.32	\$ 1.89	\$ 1.55	\$ 1.68
Weighted average basic shares outstanding	24,228	24,563	24,750	24,401	24,160
Diluted earnings per share	\$ 1.36	\$ 1.32	\$ 1.88	\$ 1.53	\$ 1.66
Weighted average diluted shares outstanding	24,228	24,612	24,882	24,665	24,565
Cash dividends per share	\$ -	\$ -	\$ -	\$ -	\$ -

	As of September 30,				
	2006	2005	2004	2003	2002
Consolidated Balance Sheet					
Data:					
Current assets	\$ 261,505	\$ 245,807	\$ 229,681	\$ 179,112	\$ 123,283
Property, plant and equipment, net	130,176	135,784	127,794	133,695	132,264
Other assets	20,452	5,172	5,816	2,810	2,838
Total assets	\$ 412,133	\$ 386,763	\$ 363,291	\$ 315,617	\$ 258,385

Current liabilities	\$	38,833	\$	35,622	\$	32,375	\$	28,916
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