CABOT MICROELECTRONICS CORP
Form 10-K
November 25, 2008

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
FORM 10-K

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

FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2008
or
o 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	36-4324765
(State of Incorporation)	(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:

Title of each class	Name of each exchange on which registered
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 [X] 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 [X]

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 [X

] 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. [X]

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	[ ]	Non-accelerated filer	[ ]

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes [ ] 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, 2008, as reported by the NASDAQ Global Select Market, was approximately $745,993,700. For the purposes hereof, "affiliates" include all executive officers and directors of the registrant.

As of October 31, 2008, the Company had 23,223,147 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 3, 2009, 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, 2008

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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 1999, 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 polishing process used by IC device manufacturers to planarize or flatten many of the multiple layers of material that are deposited upon silicon wafers in the production of advanced ICs. CMP enables IC device manufacturers to produce smaller, faster and more complex IC devices with fewer defects.

We currently operate predominantly in one industry segment – the development, manufacture and sale of CMP consumables. We develop, produce and sell CMP slurries for polishing many of the conducting and insulating materials used in IC devices, and also for polishing the disk substrates and magnetic heads used in hard disk drives. We also develop, manufacture and sell CMP polishing pads, which are used in conjunction with slurries in the CMP process.

In addition to strengthening and growing our core CMP business, through our Engineered Surface Finishes (ESF) business we seek to leverage our expertise in CMP formulation, materials and polishing techniques for the semiconductor industry to address other demanding market applications requiring nanoscale control of surface shape and finish, and gain access to a variety of markets that we do not currently serve. We are pursuing a number of surface modification applications in which we believe our technical ability to shape, enable and enhance the performance of surfaces at an atomic level can add value to our customers.

CMP PROCESS WITHIN IC DEVICE MANUFACTURING

The multi-step manufacturing process for IC devices is referred to as a “wafer start”, and 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 steps in the manufacturing process build 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 conducting materials such as aluminum or copper in a particular sequence to produce a functional IC device with specific characteristics. When the conducting wiring on one layer of the IC device is completed, another layer of insulating material is added. The process of alternating insulating and conducting layers is repeated until the desired wiring within the IC device is achieved. At the end of the process, the wafer is cut into the individual dies, which are then packaged to form individual chips.

Demand for CMP products for IC devices is primarily based on the number of wafer starts by semiconductor manufacturers and the complexity of the IC devices. To enhance the performance of IC devices, IC device manufacturers have progressively increased the number and density of electronic components and wiring in each IC device. As a result, the number of wires and the number of discrete wiring layers have increased. As the complexity of the IC devices increases, the demand for CMP products also increases. As semiconductor technology has advanced and performance requirements of IC devices have increased, the percentage of IC devices that utilize CMP in the manufacturing process has increased steadily over time. We believe that CMP is used in the majority of all IC devices

made today, and we expect that the use of CMP will continue to increase in the future.

In the CMP polishing process, CMP consumables are used to level, smooth and remove excess material from the surfaces of the layers of IC devices via a combination of chemical reactions and mechanical abrasion, 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 and a proprietary mix of 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 similar processes to smooth the surface of substrate disks before depositing magnetic media onto the disk.

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An effective CMP process is achieved through technical optimization of the CMP consumables in conjunction with an appropriately designed CMP process. Prior to introducing new or different CMP slurries or pads 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 CMP consumable product will function properly within the customer's overall manufacturing process. These tests may require minor changes to the CMP process or the CMP slurry or pad. While this qualification process varies depending on numerous factors, it is generally quite costly and may take six months or longer to complete. IC device manufacturers usually take into account the cost, time required and impact on production when they consider implementing or switching to a new CMP slurry or pad.

CMP enables IC device manufacturers to produce smaller, faster and more complex IC devices with a greater density of transistors and other electronic components than is possible without CMP. 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 thereby reduces the cost per device. 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 as the 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, making IC devices more affordable in an expanding range of applications.

PRECISION POLISHING

Through our ESF business, we are applying our technical expertise in CMP consumables and polishing techniques developed for the semiconductor industry to demanding applications in other industries where shaping, enabling and enhancing the performance of surfaces is critical to success. We believe we can deliver improvements in production efficiencies, figure precision and surface finish for a variety of difficult-to-polish materials.

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 fiscal 2006 acquisition of QED Technologies, Inc. (QED) allowed us to become a leading provider of deterministic finishing technology for the precision optics industry. We believe precision optics are pervasive, serving several existing large and growing markets such as semiconductor equipment, aerospace, defense, security and telecommunications, and also offer growth potential in new applications.

OUR PRODUCTS

CMP CONSUMABLES FOR IC DEVICES

We develop, produce and sell CMP slurries for a wide range of polishing applications of materials that conduct electrical signals, including tungsten, copper and tantalum (commonly referred to as "copper barrier" or "barrier"). Slurries for polishing tungsten are used heavily in the production of memory devices and older generation logic devices such as for MP3 players, cellphones, gaming devices and digital video recorders. Our next generation slurries for tungsten polishing are designed to be tunable, such that customers have greater flexibility, improved performance and a reduced cost of ownership. Our slurries for polishing copper and barrier materials are used primarily in the production of advanced IC logic devices such as microprocessors for computers, and devices for

graphic systems, gaming systems and communication devices. These products include different slurries for polishing the copper film and the thin barrier layer used to separate copper from the adjacent insulating material. We offer multiple products for each technology node to enable different integration schemes depending on specific customer needs.

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We also develop, manufacture and sell slurry products used to polish the dielectric insulating materials that separate conductive layers within logic and memory semiconductor chips. Our core slurry products for these materials are used for a wide variety of high volume applications. Our advanced dielectrics products are designed to be more customized than our core dielectrics products to meet the more stringent and complex performance requirements of specialized polishing applications at advanced technology nodes.

We develop, produce and sell CMP polishing pads, which are consumable materials that work in conjunction with CMP slurries in the CMP polishing process. We believe that CMP polishing pads represent a natural adjacency to our CMP slurry business, since the technologies are closely related and utilize the same technical and sales infrastructure. We believe our unique pad material and our continuous pad manufacturing process enable us to produce a pad with a longer pad life, greater consistency from pad-to-pad, and enhanced performance, resulting in lower cost of ownership for our customers. We are producing and selling pads that can be used on a variety of polishing tools, over a broad range of applications including tungsten, copper and dielectrics, over a wide range of technology nodes, and on both 200mm and 300mm wafers.

CMP CONSUMABLES FOR THE DATA STORAGE INDUSTRY

We develop and produce CMP slurries for polishing the materials that coat rigid disks and magnetic heads used in hard disk drives for computer and other data storage applications, which represent 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 hard disk drive systems, and also improves the production efficiency of manufacturers of hard disk drives by helping them increase their throughput and yield.

PRECISION OPTICS PRODUCTS

Through our QED subsidiary, we design and produce precision polishing and metrology systems for advanced optic applications that allow customers to attain near-perfect shape and surface finish on a range of optical components such as mirrors, lenses and prisms. Historically, advanced optics have been produced using labor-intensive artisan processes, and variability has been common. QED has created an automated polishing system that enables rapid, deterministic and repeatable surface correction to the most demanding levels of precision in dramatically less time than with traditional means. QED’s polishing systems use Magneto-Rheological Finishing (MRF), a proprietary surface figuring and finishing technology, which employs magnetic fluids and sophisticated computer technology to polish a variety of shapes and materials.

Fabrication of high quality, advanced optics is often hampered by the lack of accurate and affordable metrology. For example, interferometers, metrology tools that measure the surface of an optic, traditionally are limited by the size and precision of the reference optic used. QED’s Subaperture Stitching Interferometry (SSI) workstation 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. QED’s SSI technology for Aspheres (SSI-A) is designed to extend the capability of the SSI platform to measure increasingly complex shapes.

STRATEGY

We believe our core competencies lie in our abilities to shape, enable and enhance the performance of surfaces at an atomic level, as well as to consistently and reliably deliver and support products around the world that meet our customers' demanding specifications. We continue to pursue two strategic goals intended to utilize these capabilities: 1) strengthen and grow our core CMP consumables business within the semiconductor and hard disk drive industries, and 2) leverage our expertise in CMP process and slurry formulation to expand our ESF business into new markets.

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STRENGTHEN AND GROW OUR CORE CMP CONSUMABLES BUSINESS

As the leader in the CMP slurry industry, we intend to grow our core CMP consumables business through implementation of our three strategic initiatives – maintaining our technological leadership, achieving operations excellence and connecting with our customers. We believe our strong financial performance and financial position allow us to fund growth opportunities in our core CMP consumables business through internally developed technologies as well as potential acquisitions of technologies and businesses.

Technology Leadership: We believe that technology is vital to success in our CMP consumables business and we devote significant resources to research and development. We continue to develop and produce new CMP products to address existing or new CMP applications. We need to stay ahead of the rapid technological advances in the semiconductor and data storage industries in order to deliver a broad line of CMP consumables products that meet or exceed our customers' evolving needs. We have established research and development facilities in the United States, Japan, Taiwan and Singapore in order to meet our customers' technology needs on a global basis.

Operations Excellence: Our customers demand increasing performance of our products in terms of product quality and consistency. We strive to drive out variation in our products and processes in order to increase quality, productivity and efficiency, and improve the uniformity and consistency of performance of our CMP consumable 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. We believe our Six Sigma initiatives have contributed to a cumulative 23% gain in productivity in our operations over the past four fiscal years. We also have extended our Six Sigma initiative to include joint projects with customers and vendors. We continue to make improvements to our supply chain to improve the quality and consistency of our products, processes and raw materials, as well as to expand our production capacity.

Connecting With Our Customers: We believe that building close relationships with our customers is a key to achieving 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. Our customers demand a highly reliable supply source, and we believe we have a competitive advantage because of our ability to timely deliver high-quality products and service from the early stages of product development through the commercialized use of our products. We have devoted significant resources to enhance our close customer relationships and we are committed to continuing this effort. We strategically locate our research facilities, manufacturing operations and the related technical and customer support teams to be responsive to our customers' needs.

The following are some examples of the successful execution of our strategic initiatives during fiscal 2008.

- We significantly increased sales of our differentiated pad product in fiscal 2008 as sales increased to $15.1 million from $0.5 million in fiscal 2007. We were also able to expand our pad customer base from eight customers at the beginning of the fiscal year to 15 by the end of the year.
- We completed the installation of our new 300-millimeter polishing tool and related metrology equipment at our Asia Pacific technology center in Geino, Japan. This equipment is being used in the development of next-generation products for copper, barrier and other applications as well as for customer demonstrations in the Asia Pacific region.
- We entered into a long-term agreement with International Business Machine Corporation (IBM) to jointly develop CMP solutions for a variety of new applications and new materials.
- We announced that we have signed an agreement to establish on-site pad finishing capability at one of our customer's wafer fabrication facilities.

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LEVERAGE OUR EXPERTISE INTO NEW MARKETS – ENGINEERED SURFACE FINISHES

In addition to strengthening and growing our core CMP business, we are expanding our Company through our ESF business. We believe we can leverage our expertise in CMP consumables for the semiconductor industry to develop an array of products for demanding polishing applications in other industries that are synergistic to our CMP consumables business. One area of focus in our ESF business is on the electronic materials market, including the polishing of electronic substrates such as silicon and silicon-carbide wafers.

Similar to our core CMP business, our ESF business is technology driven. For example, we believe our QED subsidiary is the technology leader in deterministic finishing for the precision optics industry. In fiscal 2008, QED was awarded a prestigious "R&D 100 award" by R&D Magazine that was granted for QED's development of its SSI-A system. SSI-A is a precision metrology system that is capable of measuring complex optical surfaces, including those that are non-spherical. Fiscal 2008 was the second consecutive year in which QED has been honored with an R&D 100 award.

QED has expanded its marketing efforts beyond its traditional emphasis on the largest precision optics producers to now also appeal to hundreds of smaller optics manufacturers throughout the world that continue to rely on traditional, manual artisan labor to produce optical components. These marketing efforts translated into a number of shipments during fiscal 2008 that represented new customers for our QED business. During fiscal 2008, we equipped our Asia Pacific technology center with QED capabilities to offer product demonstrations to our customers in this region. These initiatives demonstrate our ability to serve our ESF customers on a global scale, much like we do in our CMP consumables business.

INDUSTRY TRENDS

SEMICONDUCTOR INDUSTRY

We believe the semiconductor industry has demonstrated several clear trends: semiconductor demand is increasingly driven by demand for consumer electronic devices that have a high memory content; there is constant pressure to reduce costs; the number of logic development centers continues to shrink as does the number of semiconductor manufacturers; and business is cyclical.

Consumer electronic devices now represent a strong driver for semiconductor demand, in addition to the traditional driver of personal computers. Competition in the industry continues to grow as the complexity of devices increases, so customers look for suppliers who can provide innovative and cost-effective solutions. As we enter fiscal 2009, demand in the semiconductor industry appears to be softening in conjunction with broad economic weakness in the global economy. Recent analyst reports have forecasted that semiconductor foundries are expected to reduce their utilization rates by 20-30% and a number of memory manufacturers have announced that they will reduce production as well. We believe, however, that growth in demand for consumer devices as well as continued growth in computing applications will be key growth drivers in the industry over the long term.

As the growth in consumer electronic devices continues, there is increased pressure on IC device manufacturers to reduce their costs since end users of consumer electronic devices are very price sensitive. Manufacturers are seeking ways to optimize their production yield while minimizing their production costs. One way they can control unit cost is by maximizing their production capacity, thereby spreading their fixed production costs over a large number of units. Manufacturers also seek ways to improve their production yield through the use of CMP consumables products with improved product quality and performance. Our customers also actively seek price reductions to lower their

production costs. This pressure on manufacturers to reduce costs has also led to an increase in the use of foundries where semiconductor companies can outsource some or all of their manufacturing and reduce their fixed costs.

Although cost control is critical, rapid advancement in technology increases the development and production costs of IC devices. However, technology development can be cost-prohibitive to many manufacturers, so there has been a significant decline in the number of technology development centers in the industry, particularly logic chip design centers. We believe that our customers are forming consortia and research and development alliances to better manage their development costs. The number of semiconductor manufacturers has been declining as well, since the smaller manufacturers do not have the resources to compete with the large manufacturers on the global basis needed in today's market.

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The cyclical nature of the semiconductor industry is closely tied to the global economy. In our fiscal year 2008, we saw a continued weakening of the U.S. and global economy, which now appears to be affecting end user demand for both logic and memory devices. Semiconductor manufacturers now must pay closer attention to both the cost and volume of production of IC devices. Although it is not possible to predict how long the current downturn will last, it will likely adversely affect our business well into fiscal 2009. However, we believe that wafer starts will grow in the long term.

CMP CONSUMABLES INDUSTRY

Demand for CMP consumables is primarily driven by wafer starts, so the CMP consumables industry reflects the cyclicality of the semiconductor industry. Our financial results for fiscal 2008 also demonstrated this cyclicality. During the first three quarters of the fiscal year, our revenue grew to record levels as wafer starts in the semiconductor industry continued to grow. However, we saw a downturn in our fourth quarter revenue as semiconductor unit production declined. Although wafer starts may fluctuate in the short-term, we anticipate the worldwide market for CMP consumables used by IC device manufacturers will grow in the future as a result of expected long term growth in wafer starts, growth in the percentage of IC devices produced that require CMP, an increase in the number of CMP polishing steps required to produce these devices and the introduction of new materials in the manufacture of semiconductor devices. We expect the anticipated volume growth will be somewhat mitigated by increased efficiencies in CMP consumable usage as customers seek to reduce their costs, such as through the transition to larger wafers, slurry dilution and decreased slurry flow rates.

As semiconductor technology continues to advance, we believe that CMP technical solutions are becoming more complex, and leading-edge technologies almost always 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, and these new materials and processes must be considered in developing CMP solutions. As a result, customers are selecting suppliers earlier in their development processes and are maintaining preferred supplier relationships through production. We believe that close collaboration between customers and suppliers offers the best opportunity for optimal CMP solutions. We also believe that research and development programs are critically important as we invest in new product development and more cost-effective CMP solutions.

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. However, we believe we are well positioned to continue our leadership in the CMP slurry industry. We believe we have the scale, capabilities and infrastructure that are required for success, and we work closely with the largest customers in the semiconductor industry to meet their growing expectations.

Our CMP slurry 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 any other competitor. In our view, we are the only CMP slurry supplier today which 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.

The CMP polishing pad market has been dominated by a single entity that has held this position for a number of years. A number of other companies are attempting to enter this market, providing potentially viable product alternatives. We believe our pad materials and our continuous pad manufacturing process have enabled us to produce a pad with a longer pad life with more consistency for our customers, thus reducing their total pad cost. We believe this has fueled significant growth in sales of our pad products.

Our QED subsidiary operates in the precision optics industry. There are few direct competitors of QED because its technology is relatively new and unique. We believe QED's technology provides a competitive advantage to customers in the precision optics industry which still relies heavily on traditional artisan-based methods of fabrication.

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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 some or all 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.

Based upon our own observations and customer satisfaction survey results, we believe the following factors influence our customers' CMP buying decisions: overall cost of ownership, which represents the cost to purchase, use and maintain a product; product quality and consistency; product yield and performance; and delivery/supply assurance. We believe that greater customer sophistication in the CMP process, more demanding integration schemes, additional and unique polishing materials and cost pressures will add further demands on CMP consumable suppliers. When these factors are combined with our customers' desires to gain purchasing leverage and lower their cost of ownership, we believe that only the most innovative, cost effective, service driven CMP suppliers will thrive.

We use an interactive approach to build close relationships with our customers in a variety of areas. 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 research teams that collaborate with customers on emerging applications years before the products are required by the market. We also have development teams that coordinate with our customers, using our research and development facilities and capabilities to design CMP products tailored to their precise needs. Next, our applications engineers 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 for our customers. In response to significant growth in the IC device manufacturing industry in Asia, we continue to increase our sales and marketing, technical and customer support resources in the Asia Pacific region.

We market our products primarily through direct sales to our customers, although we use distributors in certain countries. We believe this strategy is one way we can achieve our goal of staying connected with our customers.

Our QED subsidiary supports customers in the semiconductor equipment, aerospace, defense, security and telecommunications markets. QED counts among its worldwide customers leading precision optics manufacturers, major semiconductor original equipment manufacturers, the United States government and its contractors.

In fiscal 2008, our five largest customers accounted for approximately 44% of our revenue, with Taiwan Semiconductor Manufacturing Company (TSMC) accounting for approximately 17% of our revenue. 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.

RESEARCH, DEVELOPMENT AND TECHNICAL SUPPORT

We believe that technology is vital to success in our CMP business as well as in our ESF business, 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 a technology leader. We develop and formulate new and enhanced CMP consumables and new CMP processes tailored to our customers' needs. We work closely with our customers at their facilities to identify their specific technology and manufacturing challenges and to translate these challenges into viable CMP process solutions.

Our technology efforts are currently focused on five main areas that span the very early conceptual stage of product development involving new materials, processes and designs several years in advance of commercialization, through to continuous improvement of already commercialized products in daily use in our customers' manufacturing facilities:

- Research related to fundamental CMP technology;
- Development and formulation of new and enhanced CMP consumables products;
- Process development to support rapid and effective commercialization of new products;
- Technical support of CMP products in our customers' manufacturing facilities; and
- Evaluation of new polishing applications outside of the semiconductor industry.

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Our research in CMP slurries and pads addresses a breadth of complex and interrelated performance criteria that relate to the functional performance of the chip, our customers' manufacturing yield, and their overall cost of ownership. We design slurries and pads that are capable of polishing one or more materials, sometimes at the same time, that make up the semiconductor circuitry. Additionally, our products must achieve the desired surface at high polishing rates, high processing yields and low consumables costs in order to earn acceptable system economics for our customers. As dimensions become smaller and as materials and designs increase in complexity, these challenges require significant investments in research and development.

Beyond CMP for the semiconductor and data storage industries, we also commit internal research and development resources to our ESF business. 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 a number of different fields. These fields include the development of CMP consumables for the electronic materials market. One of the areas on which we are focusing is the development of products used to polish silicon and silicon-carbide wafers to improve the surface quality of the wafer and reduce the customers' total cost of ownership.

We believe that 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 2008, 2007 and 2006, we incurred approximately $49.2 million, $50.0 million and $48.1 million, respectively, in research and development expenses. We believe our Six Sigma initiatives in our research and development efforts realized over $4.0 million in cost savings in fiscal 2008, allowing us to do more research at a lesser cost. Investments in property, plant and equipment to support our research and development efforts are capitalized and depreciated over their useful lives. We operate a research and development facility in Aurora, Illinois, that 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 consumable products. This facility features a Class 1 clean room and advanced equipment for product development, including 300 mm polishing and metrology capabilities, the experimental results from which we believe correlate closely with what our customers experience when using our products in their factories. 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. We added new 300 mm polishing, metrology and slurry development capability to our Asia Pacific technology center in fiscal 2008. These facilities underscore 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, our QED research facility in Rochester, New York, as well as our laboratory in Singapore that provides additional slurry formulation capability to support the data storage industry.

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 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. Also, 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.

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INTELLECTUAL PROPERTY

Our intellectual property is important to our success and ability to compete. As of October 31, 2008, we had 173 active U.S. patents and 92 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 businesses. 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, in January 2007, we filed a legal action against DuPont Air Products NanoMaterials LLC (DA Nano), a competitor of ours, charging that DA Nano's manufacture and marketing of certain CMP slurries infringe five CMP slurry patents that we own, and that litigation is ongoing. In addition, in the third quarter of fiscal 2006, we were successful in an action we brought before the United States International Trade Commission (ITC) concerning Cheil Industries, Inc. (Cheil) which resulted in the prohibition of the importation and sale within the United States of certain CMP slurries that infringe certain of our patents, and we have litigation currently ongoing in Korea against Cheil regarding the same patent family.

We also may acquire intellectual property from others to enhance our intellectual property portfolio. For example, in December 2006, we acquired a license for the non-exclusive use of a broad portfolio of CMP consumable technology and processes from a third party. In addition, in June 2006, we entered into a patent assignment agreement with IBM to acquire a number of patents and associated rights relating to CMP slurry technology from IBM, including various applications such as copper, barrier, tungsten, and dielectrics, among others. We also acquired certain proprietary technology and intellectual property as part of our fiscal 2006 acquisitions of QED and Surface Finishes Co. We believe these technology rights continue to enhance our competitive advantage by providing us with future product development opportunities and expanding our already substantial intellectual property por LINE-HEIGHT: 1.25; MARGIN-RIGHT: 0pt" align=center>**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.

CENTURY CASINOS, INC.

By:/s/ Larry Hannappel
Larry Hannappel, Senior Vice-President

EXHIBIT INDEX

The following exhibits are filed herewith:

No.	Description
10.149	Corrected Employment Agreement by and between Century Casinos, Inc. and Mr. Richard S. Rabin, Chief Operating Officer, North America dated April 27, 2005.
31.1	Certification Pursuant to Securities Exchange Act Rule 13a-15(f) and 15d-15(f), Chairman of the Board and Co-Chief Executive Officer.
31.2	Certification Pursuant to Securities Exchange Act Rule 13a-15(f) and 15d-15(f), Vice-Chairman and President, and Co-Chief Executive Officer.
31.3	Certification Pursuant to Securities Exchange Act Rule 13a-15(f) and 15d-15(f), Senior Vice-President.
31.4	Certification Pursuant to Securities Exchange Act Rule 13a-15(f) and 15d-15(f), Chief Accounting Officer.