Cabot Microelectronics

Our vision—

To be the world leader in shaping, enabling and enhancing the performance of surfaces.

About the company—

Cabot Microelectronics Corporation, headquartered in Aurora, Illinois, is the world's leading supplier of chemical mechanical planarization (CMP) slurries used in semiconductor and data storage manufacturing. Our products play a critical role in the production of the most advanced semiconductor devices, enabling the manufacture of smaller, faster and more complex devices by our customers.

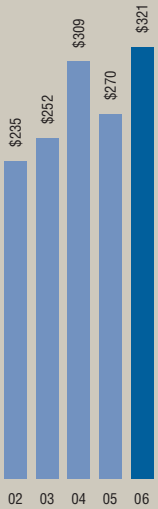
Since becoming an independent public company in 2000, we have grown to nearly 750 employees who work at research and development labs, sales and business offices, manufacturing facilities and customer service centers in China, France, Germany, Japan, Singapore, South Korea, Taiwan, the United Kingdom and the United States.

On the cover—
Our researchers test a new slurry by polishing wafers in our state-of-the-art cleanroom.

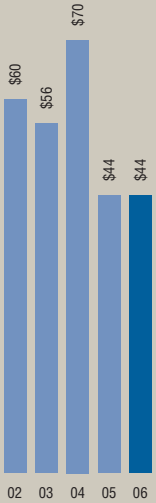
Selected financial data

In millions, except per share amounts	*Years ended September 30,* **2006**	2005	*Change*
Revenue	**$320.8**	$270.5	18.6%
Operating income	**44.4**	43.8	1.5
Net income	**32.9**	32.5	1.5
Diluted earnings *per share*	**1.36**	1.32	3.0
Total assets	**412.1**	386.8	6.6
Stockholders' equity	**367.8**	339.1	8.5
Cash and short-term investments	**165.9**	171.0	-3.0
Cash provided by operations	**58.7**	48.0	22.3
After tax return on invested capital	**15%**	17%	

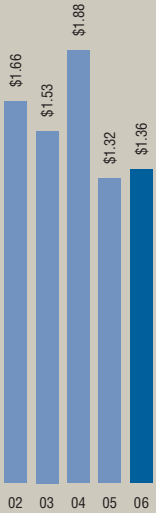
Revenue



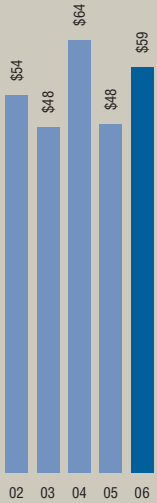
Operating income



Diluted earnings *per share*



Cash provided by operations



To our shareholders, customers, suppliers and employees:

William P. Noglows (left), Chairman, President and CEO, and William S. Johnson, Vice President and CFO

FISCAL 2006 WAS A STRONG YEAR of financial and operational performance for Cabot Microelectronics Corporation. In addition to reporting record revenue of $321 million, we made several significant investments and executed a number of initiatives to strengthen our leadership in CMP consumables, and to position our company for growth in adjacent markets. We're beginning to see results from our work over the past few years, and we enter the new year with the satisfaction, optimism and confidence that comes from success. Our goal is continued, sustainable growth in the years ahead and we are confident we can achieve it.

In addition to reporting record revenue of $321 million, we made several significant investments and executed a number of initiatives.

From our perspective, our leadership in CMP slurries for the semiconductor industry is clear. In fiscal 2006, we enhanced that position by bringing new products to market and strengthening our technology and support capability. We launched a new CMP pad technology that we believe offers customers both enhanced performance and cost advantages over current technologies. We introduced exciting new slurry products in each major CMP application area—copper and barrier, tungsten, dielectrics and advanced dielectrics—as well as for data storage applications. And we opened our Asia Pacific Technology Center in Japan, added our Technical Service Center in Taiwan and moved our data storage business to Singapore. Each of these accomplishments will support ongoing growth of our business.

Our new product introductions and facility additions are visible and measurable achievements, and I'm proud of what we've accomplished. But I am even prouder of an emerging enthusiasm within the company, something not easily seen by the outside world. Our teams around the globe have all played a significant role in developing and executing our strategies. The excitement of our achievements in fiscal 2006 has renewed their energy, sense of urgency and appetite for even greater success in the coming years.

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To achieve that success, we will continue to execute the strategic initiatives we have been pursuing within our core CMP consumables business: *technology leadership, operations excellence,* and *connecting with customers*. Our work will be guided by an emphasis on speed. We know we can execute faster, and in the coming years, we will.

Our initiative of *technology leadership* is key to achieving our goals because technology drives our customers' businesses. CMP materials and integration schemes are becoming much more complex. The customization required by this increasing complexity, along with rigorous demands for quality, are causing semiconductor manufacturers to seek suppliers with the capability, resources and scale to meet their needs. Recognizing Cabot Microelectronics' technical capability, experience, scope and breadth as the best in our industry, customers are seeking to form deeper and closer technical and developmental relationships with us. We believe this clearly demonstrates that our efforts to strengthen technology leadership—our company's legacy—are providing value for customers and future growth opportunities for the company.

To build on our technology leadership, we have developed a robust new product pipeline. In doing so, we have also created a significantly more efficient cross-functional commercialization process that encompasses emerging technologies and materials, process development and product development. We are pleased with our technical achievements in the past year, and we will continue to change and evolve as our customers require.

Succeeding in today's environment means suppliers of technology to the semiconductor industry must provide highly predictable solutions to increasingly complex customer needs. We believe the quality, reliability and consistency of our products are recognized competitive advantages and contribute value to our customers. Thus, we have set very high goals as we continue to focus on reducing variation under our *operations excellence* initiative. A few years ago, we embraced the concepts of Six Sigma, hiring leaders with extensive experience in the process and its tools, and training our employees. At Cabot Microelectronics, the Six Sigma culture is real, it is powerful, and it is changing our company.

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The third initiative within our core CMP business is *connecting with customers*. We took several critical steps in fiscal 2006 to bring our capabilities physically closer to our customers, particularly in the Asia Pacific region. We now have new laboratories in Japan, Taiwan and Singapore that provide the capability to support our customers more rapidly and reliably. In addition, we began selling directly to customers in Taiwan, our largest regional market. Even though the transition had a short-term adverse financial impact in our second fiscal quarter, it was important in fulfilling our goal to be close to our customers. Along the way, we strengthened local teams of highly capable and energetic employees dedicated to serving our customers.

We have been making other changes to meet the demands of our customers as well. We adjusted our operating model to give far more autonomy and accountability to our regional organizations, and are reshaping our headquarters in Illinois to concentrate on core platform technology research, development and support. Our goal is to have very strong local teams deployed to address specific customer opportunities, supported by the global breadth and experience of all of Cabot Microelectronics. We believe our ability to leverage global experience and knowledge of all technology nodes and applications and apply this locally is unique, and we intend to use this ability to its fullest potential.

Most of our focus is on our core CMP business, both slurries and pads, for the semiconductor industry. But we also seek growth by leveraging our expertise in CMP formulation, materials and polishing techniques for the semiconductor industry to address other demanding market applications requiring sub-nanometer control of surface and finish. Our objective is to improve performance and productivity by enhancing the finishing process. We see possibilities in areas ranging from optics to healthcare, and from aerospace to compound semiconductors, to name just a few. This year, we made two important steps under our Engineered Surface Finishes (ESF) growth initiative by successfully completing two acquisitions: Surface Finishes Company, a small company that specializes in precision machining and polishing techniques at the sub-nanometer level, and QED Technologies, a precision optics technology company. These acquisitions complement our ongoing internal business and technology development efforts, and are introducing us to new technologies and new industries, with channels to new markets. We look forward to building on their capabilities as well as looking for other acquisitions in pursuit of our ESF initiative.

Our core CMP business is solid and vibrant, and we believe our business development activities promise an exciting future.

We begin fiscal 2007 with momentum and optimism. Our core CMP business is solid and vibrant, and we believe our business development activities promise an exciting future. Our three-year business plan targets revenue of $500 million in fiscal 2009, with net income growing to 12 percent of revenue during this period. We intend to achieve these targets by growing our core CMP slurry business faster than the market, building our CMP pad business, and successfully implementing our ESF initiative. I am optimistic that the strong foundation we have built, along with our emerging culture that thrives on winning, will allow us to achieve our targets.

This is an exciting time in our industry. Technology is reaching new levels of complexity. Customers require increasingly intricate solutions to their design needs, while at the same time they demand more exacting standards for quality and consistency. We are proud of our achievements in the last year to enhance our leadership in CMP consumables and we will continue to work for sustainable, long-term growth.

We thank you for your support of our company.

Sincerely,

William P. Noglows
Chairman, President and CEO

Cabot Microelectronics is the world's leading supplier of chemical mechanical planarization (CMP) polishing slurries to the semiconductor industry.

That sentence is part of the general language we use to explain who we are and what we do. We *are* the world's leading supplier, whether measured by slurry revenue or manufacturing capacity. But we believe we lead our industry for reasons far beyond sales volume and plant size.

Leadership means blazing the trail in technology and product innovation. It means setting the standards of quality for an industry. It means having strong relationships with customers. It means being the "go to" source when customers have problems. And it means always looking for ways to grow. Using those criteria, we believe Cabot Microelectronics is the undisputed leader in CMP slurries.

► Particle scientists develop new metrologies for improving slurry quality.

Cabot Microelectronics:

The industry leader

Product innovation

The semiconductor industry follows the International Technology Roadmap for Semiconductors (ITRS), a timeline that forecasts technological innovation. These innovations mean semiconductor devices will run faster, do more and perform more efficiently. They also put chip designers under enormous pressure to deliver those technology advancements.

We offer customers more than just CMP slurries and pads. We provide the benefit of our technological expertise and experience. In each of the last four years, we have invested more than $40 million to further our extensive knowledge of perfecting surfaces at the sub-nanometer level. That's more than a number of our competitors generate in annual CMP slurry revenue.

Our product development process begins with our enabling team, whose mission is to determine what customers are going to need and want in future generations of semiconductor and data storage devices. Guided by the ITRS (which our people help develop) and a fundamental understanding of polishing mechanics and the interaction of tool, slurry, pad and pad conditioner, the enabling team operates in the world of "What if…?" and "How can we…?"

As a new technology progresses from theory to "drawing board", chip designers look for partners and suppliers to help produce the new design. In the competition among suppliers, we believe we are ahead of the game. Our enabling team gives us a headstart by discovering what works (and what doesn't), so our product development teams can devote their time and resources to refining that discovery for practical application.

► We develop and evaluate slurries and pads in cleanroom labs that replicate customer facilities.

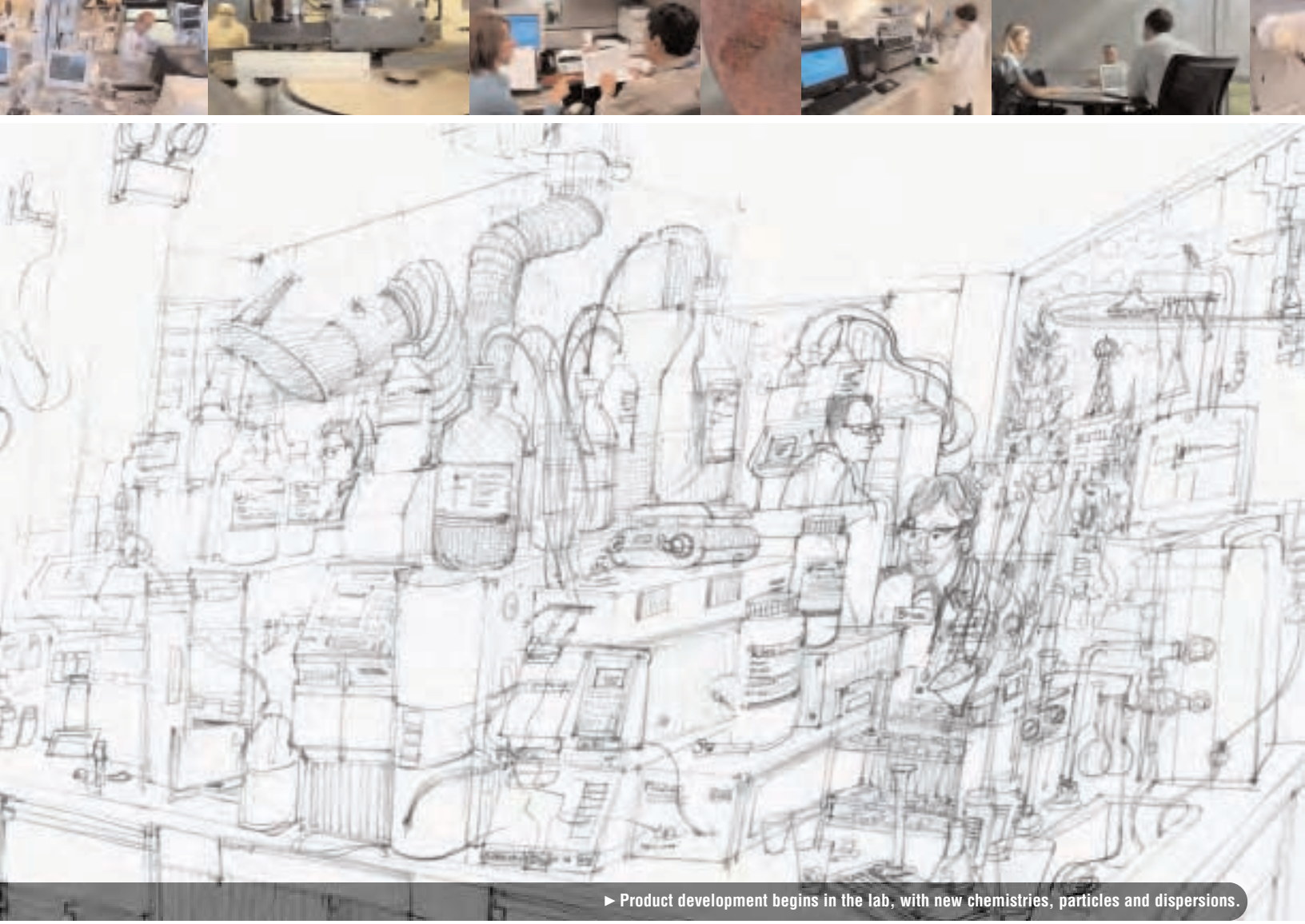
This dedication to R&D has allowed Cabot Microelectronics to develop a robust product portfolio. Our tungsten slurries are the industry standard and we enjoy a very strong position in that business today. To be able to meet customers' future needs as well, we continue enhancing our tungsten product line. We commercialized two new tungsten products in fiscal 2006, one of which is *tunable*. This means we can adjust its formula to precisely meet a customer's specifications for selectivity and polishing rate. This is becoming increasingly important as the industry moves away from "one size fits all" CMP processes.

In our copper slurry business, our first and second generation products have made us the number one supplier. Although several competitors participate in this segment, we believe there is no clear number two. Designs for chips using copper wiring are introducing a variety of materials for the barrier layer, and these also require more design-specific solutions. Our research team is working extensively with these new materials and we see great opportunities for growth in barrier applications. In our third fiscal quarter, we reported commercial sales of our new barrier product for a not-yet-commercial 45nm application. Additionally, we recently launched our next-generation copper solution which incorporates new particle technology and improved performance.

Our dielectric business is built on both legacy products and new technology. Our next-generation tunable dielectric products incorporate new technology and novel chemistries to reduce scratching and improve planarity. We are working jointly with several customers to develop more advanced applications.

One of our most recent product innovations is our CMP polishing pad, which we believe represents a major technological breakthrough. Currently used in high volume manufacturing by semiconductor manufacturers, the pad is the result of extensive research to deliver a step change improvement in CMP pad life and pad-to-pad consistency. Our new pad is designed to offer enhanced performance, longer pad life and thus less down time, and lower cost to the end user. Our long-term goal is to develop slurry and pad consumable sets which we believe can enable significant improvements in CMP polishing performance and create synergies for customers.

We are excited about our extensive new product pipeline. And we are equally excited about the interest our customers are showing in our plans for meeting their future needs. We are working with several key customers to



► Product development begins in the lab, with new chemistries, particles and dispersions.

help them develop technology two and three nodes into the future. These leading edge producers came to us because they recognize the strength of our resources…the strength of a leader.

Standards of quality

Manufacturing an advanced chip can require up to 500 processing steps, of which 10 to 25 steps involve CMP. Many of these CMP steps occur late in the manufacturing process after much of the value has been added to the device, so any CMP quality issues can be very costly to our customers. And because customer processes are extremely sensitive to the CMP slurry, even minor variations can interrupt processing.

We engineer quality into our product design and insure that finished product performance is validated *before* it goes into commercialization and high volume manufacturing. We test from all angles, which means our development cycles may be relatively long. While we are seeking ways to shorten our development process, we know that rushing a product to market without adequate testing can compromise performance in a customer's fab. Making even the smallest change in a commercial semiconductor process costs the customer time and money, so the product must be right from the start. We believe our reputation for quality and performance gives us a clear competitive advantage.

Our manufacturing process is the second way in which we address quality. Through Six Sigma principles, we determine where we can reduce product variability and improve consistency and productivity. We captured a 12 percent productivity improvement over the first two years of our Six Sigma effort and we have set aggressive improvement targets for the future.

The scale of our manufacturing capability also allows us to provide our customers with a high quality product. Our factory in Japan is the world's largest CMP slurry plant, and our plant in Illinois is almost as large. These facilities, along with our other manufacturing sites, allow us to quickly and efficiently supply customers around the world. They also offer supply assurance to our customers in the event of a regional supply disruption. We believe our manufacturing capability is unique among our competitors…the capability of a leader.

Connecting with customers

Semiconductor devices are extremely complex, requiring supplier collaboration from design concept through high volume manufacturing. Our goal is to be the source customers turn to for help with their CMP processing.

► Customer service advocates provide a full range of customer support.

Because of our extensive investment in technology, we can respond quickly to requests during a customer's design phase. For example, one major manufacturer was in process development with one of our new tunable slurries. When a design change required a modification, the customer was delighted when we were able to send a new slurry product in only three days. While this was an unusual situation, it highlights how we are able to serve our customers.

Our support doesn't end when the sale is complete. The CMP process is extremely complex. Problems can arise, seemingly out of nowhere. Customers want problems solved quickly, and with our global resources, we can respond immediately, deploying our applications engineers around the world. These experts draw on all our resources to help our customers get their manufacturing yields back up as soon as possible. In fact, even when our slurry is *not* the root cause, our customers know they can depend on us to help them solve a problem.

Some of our largest customers are in Taiwan, and we took an important step forward in our relationships with them when we began selling direct there last April. Our previous model, selling our products through a distributor, worked well when we entered the business and as we grew. But the scale of our business in Taiwan today means selling directly to customers makes sense. The transition went smoothly, and our customers can now take full advantage of the technical and support services we offer.

We believe partnerships between customer and supplier are becoming even more significant to the customer as technologies become more sophisticated. Many semiconductor manufacturers find they can't or don't want to solve CMP process design challenges by themselves. And, as many manufacturers are scaling back their technical resources, they may not be able to devote sufficient resources to a specialized field like CMP. Thus, customers are making partnership decisions earlier in the design process, based on the technical capability of the supplier. As the technology leader, we see this as a great opportunity.

By offering quality products backed by superior service and an eagerness to do what it takes to make our customers' lives easier, we believe we offer partnerships that satisfy many needs from design through implementation . . . partnerships with a leader.

► Continuous process manufacturing of pads yields cost, performance and quality advantages.

Growing the business

In addition to growing our core CMP business, we are exploring how we can use our expertise in perfecting surfaces at a sub-nanometer level to improve performance or increase productivity in areas adjacent to the semiconductor industry through our Engineered Surfaces Finishes (ESF) growth initiative.

In fiscal 2006, we purchased Surface Finishes, a small, state-of-the-art mechanical finishing company that provides a window into new market opportunities and customers with demanding finishing needs. We also made a larger acquisition when we purchased QED Technologies, whose unique and proprietary technology for finishing high-precision optics is helping to automate that industry. These acquisitions complement our ongoing internal development efforts.

Success in our ESF initiative will require technical expertise, business acumen and strategic thinking. We're excited by the prospects because we have those skills . . . the skills of a leader.

tungsten

Our tungsten slurries are used to polish tungsten in semiconductor chips used mainly in mature logic applications such as for automotive uses and in chipsets, and in memory, including MP3 players, cellphones, gaming devices and digital video recorders. Our next generation slurries are tunable, allowing customers greater flexibility, improved performance and a reduced cost of ownership.

Semi-Sperse®

W2K

dielectrics

These products are used to polish the oxide layers of a semiconductor chip. These layers insulate the wiring layers in both logic and memory chips. Our Semi-Sperse® product line was a pioneer solution for polishing oxide at 250nm, and, with our updated technology, continues to be used at advanced nodes. The SiLECT® product line, which uses an innovative abrasive, was developed to meet the needs of 90nm and 65nm technologies. Our newest line, iDIEL®, is used for advanced applications and can provide significant advantages in reducing defects.

Semi-Sperse®

SiLECT®

iDIEL

copper

The iCUE® line of copper and barrier slurries are used for polishing the most advanced logic chips, such as microprocessors used in computers, graphic systems, gaming systems and communication devices. We supply slurries that polish the copper films, as well as those that polish the barrier and advanced low K dielectric materials that separate the individual copper lines. Our iCUE products are used across the globe in advanced integrated circuit manufacturing for technology nodes from 180nm to 45nm.

iCue®

data storage

Used in polishing magnetic heads and hard disks, our slurries are designed to significantly improve the surface finish and planarity of hard disk drive components, enabling greater storage capacity.

Lustra®

TRANSELE™

polishing pads

Our Epic® D100 pad is used to polish semiconductor devices during CMP processing. Able to polish either 200mm or 300mm wafers, and for use on copper, tungsten and dielectric applications, the properties of the pad material offer enhanced performance and longer pad life. Our continuous pad manufacturing process offers improved consistency across an individual pad and from pad to pad. The end result offers lower cost of ownership to the customer.

Epic®

engineered surface finishes (ESF)® growth initiative

Through ESF, the company is leveraging its expertise in CMP formulation, materials and polishing techniques for the semiconductor industry to address other demanding market applications requiring sub-nanometer control of surface shape and finish.

ESF

The Surface Finishes® business offers highly specialized optical polishing, low-stress grinding, lapping and other custom fabrication services for applications requiring extremely fine finishes to meet the most challenging specifications.

QED Technologies® polishes optics for high precision applications using these tools:

Magneto-Rheological Finishing (MRF)®
This system has the unique ability to predictively improve both shape and surface finish simultaneously. MRF is widely acknowledged as the best-in-class technology for final figuring of the highest precision optics.

Subaperture Stitching Interferometry (SSI)®
Interferometers measure the surface of an optic and traditionally are limited by the size and precision of the reference optic used. SSI is designed to remove those barriers, giving the user an accurate, complete map of the optical surface. This map is needed to produce the highest precision optics to the most exacting tolerances. In combination with MRF, SSI enables the transition from time-consuming, costly, labor-intensive processes to repeatable, efficient automation in producing precision optical surfaces.

QED Technologies®

Leadership team and officers

William P. Noglows
Chairman, President and Chief Executive Officer

H. Carol Bernstein
Vice President, Secretary and General Counsel

Yumiko Damashek
Managing Director, Japan

James DeHoniesto
Chief Information Officer

Jean Pol Delrue
Vice President, Global Sales

William S. Johnson
Vice President and Chief Financial Officer

Daniel J. Pike
Vice President, Corporate Development

Thomas S. Roman
Corporate Controller

Stephen R. Smith
Vice President, Marketing

Clifford L. Spiro
Vice President, Research and Development

Carmelina M. Stoklosa
Treasurer and Director, Finance

Adam F. Weisman
Vice President, Business Operations

Daniel S. Wobby
Vice President, Asia Pacific Region

Board of directors

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Chairman
President and Chief Executive Officer, Cabot Microelectronics Corporation

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Chancellor, University of California, Berkeley

John P. Frazee, Jr.
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Former Chairman and Chief Executive Officer, Nalco Chemical Company

Steven V. Wilkinson
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Albert Y.C. Yu
Chairman, OneAngstrom LLC; Former Senior Vice President, Intel Corporation

Corporate information

Corporate headquarters

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1.630.375.6631 *phone*
1.800.811.2756 *toll free*
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Investor information

Contact our offices by mail at the address above, by telephone at 1.630.499.2600 or at www.cabotcmp.com.

Stock information

Cabot Microelectronics is traded on NASDAQ under the symbol CCMP.

Stock transfer agent and registrar

Computershare Trust Company, N.A.
P.O. Box 43078
Providence RI 02940.3078
1.781.575.3400
www.computershare.com

Independent auditors

PricewaterhouseCoopers LLP
Chicago IL

Shareholder meeting

The Annual Meeting of Shareholders will be held at 8 a.m. Central Time on March 6, 2007, at Cabot Microelectronics Corporation, 870 N. Commons Drive, Aurora IL.

Form 10-K

A copy of the Cabot Microelectronics Annual Report on Form 10-K for the fiscal year ended September 30, 2006, filed with the Securities and Exchange Commission, is enclosed and also available without charge at www.cabotcmp.com.

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