MECHANICAL TECHNOLOGY INC
Form 10-K
March 27, 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 DECEMBER 31, 2007

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE TRANSITION PERIOD FROM ____ TO _____

_____

Mechanical Technology, Incorporated

(Exact name of registrant as specified in its charter)

_____

New York	**0-6890**	**14-1462255**
(State or Other Jurisdiction of Incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**

431 New Karner Road, Albany, New York 12205

(Address of registrant's principal executive office)

(518) 533-2200

(Registrant's telephone number, including area code)

Securities Registered Pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common Stock ($0.01 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 X

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 (Section 229.405 of this chapter) is not contained herein, and will not be contained, to the best of the 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, a non-accelerated filer, or a smaller reporting company. See definition of "large accelerated filer", "accelerated filer", and "smaller reporting company" in Rule 12b-2 of the Exchange Act (check one):

Large Accelerated Filer	Accelerated Filer	Non-Accelerated Filer	Smaller reporting company X

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 voting and non-voting common equity held by non-affiliates as of June 30, 2007 (based on the last sale price of $1.26 per share for such stock reported by NASDAQ for that date) was $43,748,142. Such value excludes common stock held by executive officers, directors, and 10% or greater stockholders as of June 30, 2007. The identification of 10% or greater stockholders as of June 30, 2007 is based upon 13G and amended 13G reports publicly filed before June 30, 2007. This calculation does not reflect a determination that such parties are affiliates for any other purposes.

As of March 20, 2008, the Registrant had 38,179,888 shares of common stock outstanding.

Documents incorporated by reference: Portions of the registrant's Proxy Statement for its 2008 Annual Meeting of Stockholders are incorporated by reference into Part III of this Form 10-K.

PART I

Item 1: Business

Unless the context requires otherwise in this Annual Report, the terms "we", "us" and "our" refer to Mechanical Technology, Incorporated, a New York corporation, "MTI Micro" refers to MTI MicroFuel Cells, Inc., a Delaware corporation and our majority owned subsidiary, and "MTI Instruments" refers to MTI Instruments, Inc., a New York corporation and our wholly owned subsidiary. We have a registered trademark in the United States for "Mobion". Other trademarks, trade names, and service marks used in this Annual Report are the property of their respective owners.

We are developing and commercializing off-the-grid rechargeable power sources for portable electronics. We have developed a patented, proprietary direct methanol fuel cell technology platform called Mobion, which generates electrical power using up to 100% methanol as fuel. Our proprietary fuel cell power solution consists of two primary components integrated in an easily manufactured device: the direct methanol fuel cell power engine, which we refer to as our Mobion Chip, and methanol replacement cartridges. Our current Mobion Chip weighs less than one ounce and is small enough to fit in the palm of one's hand. The methanol used by the technology is fully biodegradable. We believe we are the only micro fuel cell developer to have demonstrated power density of over 50 mW/cm^2 with high energy efficiencies of 1.4 Wh/cc of methanol for handheld consumer electronic applications. For these reasons, we believe our technology offers a compelling alternative to current lithium-ion and similar rechargeable battery systems currently used by original equipment manufacturers and branded partners, or OEMs, in many handheld electronic devices, such as mobile phones (including smart phones) and mobile phone accessories, digital cameras, portable media players, PDAs, and GPS devices. We believe our platform will facilitate the development of numerous product advantages, including small size, environmental friendliness, and simplicity of design, all critical for commercialization in the consumer market, and can be implemented as three different product options: a compact external charging device, a snap-on or attached power accessory, or an embedded fuel cell power solution. We have strategic arrangements with Samsung Electronics and the Duracell division of the Gillette Company. Our goal is to become a leading provider of portable power for handheld electronic devices and we intend to commercialize Mobion products beginning in 2009.

Our Mobion technology eliminates the need for active water recirculation pumps or the inclusion of water as a fuel dilutant. The water required for the electrochemical process is transferred internally within the Mobion Chip from the site of water generation on the air-side of the cell. This internal flow of water takes place without the need for any pumps, complicated re-circulation loops or other micro-plumbing tools. Our Mobion technology is protected by a patent portfolio that includes over 90 U.S. patent applications covering five key technologies and manufacturing areas.

We also design, manufacture, and sell high-performance test and measurement instruments and systems serving three markets: general dimensional gauging, semiconductor, and aviation. These products consist of: electronic, computerized gauging instruments for position, displacement and vibration applications for the design, manufacturing and test markets; semiconductor products for wafer characterization; and engine balancing and vibration analysis systems for military and commercial aircraft.

The Portable Power Source Industry

Industry Background

Consumers demand portable electronics that offer an enhanced experience through expanded memory, improved display technologies, constant connectivity, robust software, and a reduced form factor. In addition, technological advances in semiconductor manufacturing, LED displays, memory costs and availability, wireless technologies, and software applications have resulted in a dramatic increase in the number of portable electronic devices, their usage, and power requirements. As a result of these consumer demands and technological advances, there are a number of handheld electronic devices, such as mobile phones (including smart phones) and mobile phone accessories, digital cameras, portable media players, PDAs, and GPS devices, that have been introduced into the market. Many of these devices provide consumers and mobile professionals with the ability to communicate any time, anywhere and have effectively enabled the creation of an “always-on” environment independent of the end user’s location. This trend towards increased functionality in portable electronic devices has led to a “power gap” in which the disparity between a device’s power supply, typically a rechargeable lithium-ion battery, and its power need are not being met. This power gap leads to a need for the end user to plug-in their devices to the electrical grid on a regular basis, which limits their ability to use these electronic devices where and when the need arises.

The Power Source Bottleneck

Improvements in rechargeable battery technology have not kept pace with the evolution of consumer electronic device performance. Over the last ten years, device performance as measured by silicon processor speed has increased by a factor of 128 times, while the energy density of lithium-ion technology has only doubled. We believe that further gains in lithium-ion technology for portable

electronics will be incremental at best, as any achievable benefits may be outweighed by the decreasing stability, availability, integrity, and relative safety of these higher energy output batteries. In addition to their performance shortfalls, lithium-ion battery technology poses an environmental risk as the various heavy metals incorporated in these batteries require special disposal to prevent contamination of waste disposal sites.

According to Frost and Sullivan, an independent research firm, the global battery market was approximately $14.3 billion in 2006 and is projected to increase to roughly $21.4 billion by 2012. The market for batteries can be divided into three segments: consumer, industrial, and military. Consumer battery sales represented approximately 81% of this market and are projected to represent an overwhelming majority of sales through at least 2012. The same study estimates that rechargeable batteries accounted for approximately $5.4 billion of this market in 2006.

OEMs are actively seeking improved power sources to replace existing rechargeable lithium-ion batteries and to power additional improvements to their mobile electronic devices. The development of new products using technologies that already exist, such as radio frequency technologies and 4G wireless capabilities, but cannot be effectively commercialized on mobile devices, will result from the availability of portable, compact, economical, rechargeable/replaceable higher energy density power sources, including micro fuel cells.

Our Solution

At the core of our solution is our proprietary Mobion Chip engine, a design architecture that embodies a reduction in the size, complexity, and cost of fuel cell construction, which results in a reliable, manufacturable, and affordable power solution that we believe provides improved energy density and portability over competing rechargeable battery technologies. Our proprietary fuel cell power solution consists of two primary components integrated in an easily manufactured device: the direct methanol fuel cell power engine, which we refer to as our Mobion Chip, and methanol replacement cartridges. Our Mobion Chip weighs less than one ounce and is small enough to fit in the palm of one’s hand. For these reasons, we believe that our Mobion platform is ideally suited to provide a replacement for rechargeable lithium-ion batteries. Based upon our ability to provide a compact, efficient, clean, safe, and long-lasting power source for lower power applications, we intend to initially target power solutions for applications, such as mobile phones (including smart phones) and mobile phone accessories, digital cameras, portable media players, PDAs, and GPS devices.

For handheld consumer electronic applications, we believe we are the only micro fuel cell developer to have demonstrated power density of over 50 mW/cm^2 with energy efficiencies of 1.4 Wh/cc of fuel, which is a direct result of our Mobion platform’s ability to use 100% methanol – a widely available, environmentally friendly, inexpensive, and biodegradable fuel. These advantages result in higher energy density and reduced size, cost, and complexity of our power solution offering consumers portable on-demand power, independence from power outlets, and freedom from the need to constantly recharge their devices.

Our Strategy

Our goal is to become a leading provider of portable power for handheld electronic devices. Key elements of our strategy designed to achieve this objective include the following:

Business Focus. We are focusing our efforts on the development and commercialization of our portable power source products. We believe this business provides a higher potential, higher growth opportunity than our test and measurement instrumentation business. We will continue to evaluate our test and measurement instrumentation business, which contributes positive operating results and cash flows, but may consider its

eventual sale or other disposition.

Design for Mass Manufacturing. Our portable power source products will be manufactured using standard processes, such as injection molding and automated test and assembly, which are broadly employed throughout the electronics manufacturing industry. In preparing Mobion for commercialization, our current Mobion Chip is injection molded and is being designed for mass manufacturing. In addition, we have continued integrating more functionality into our Mobion Chip while reducing its part count to one molded piece. Our current Mobion Chip is 9ccs in size, which is small enough to fit in the palm of a hand.

Outsource Manufacturing. We plan to outsource manufacturing to expand rapidly and diversify our production capacity. This strategy will allow us to maintain a variable cost model in which we do not incur most of our manufacturing costs until our proprietary fuel cell power solution has been shipped and billed to our customers. We intend to concentrate on our core competencies of research and development and product design. This approach should reduce our fixed capital expenditures and allow us to efficiently scale production.

Utilize our Technology to Provide Compelling Products. We plan to utilize our intellectual property portfolio and technological expertise

to develop and offer portable power source products across multiple electronic device markets. We intend to employ our technological expertise to reduce the overall size and weight of our portable power source products while increasing their ease of manufacturing, power capacity, and power duration and decreasing their cost. We believe that these efforts will enable us to meet customer expectations and to achieve our goal of supplying on a timely and cost-effective basis the most environmentally friendly portable power source products to our target markets. We believe our products will offer advantages in terms of performance, functionality, size, weight, and ease of use. We plan to continue enhancing our customer's industrial design alternatives and device functionality through innovative product development based on our existing capabilities and technological advances.

Capitalize on Growth Markets. We intend to capitalize on the growth of the electronic device markets, including new products that may be brought about by the convergence of computing, communications, and entertainment devices. We believe our portable power source products will address the growing need for portability, connectivity, and functionality in the evolving electronic device markets. We plan to offer these power solutions to OEM customers to enable them to offer products that have advantages in terms of size, weight, power duration, and environmental friendliness. We plan to utilize our existing technologies, as well as aggressively pursue new technologies and evolving markets that demand enhanced power solutions.

Develop Strong Customer Relationships. We plan to develop strong and long-lasting customer relationships with leading electronic device OEMs and to provide them with power solutions for their products. We believe that our portable power source products will enable our OEM customers to deliver a more positive user experience and to differentiate their products from those of their competitors. We will attempt to enhance the competitive position of our customers by providing them with innovative, distinctive, and high-quality portable power supply products on a timely and cost-effective basis. We will work continually to improve our portable power source products, to reduce costs, and to speed the delivery of our products. We will endeavor to streamline our designs and delivery processes through ongoing design, engineering, and production improvement efforts. We will also devote considerable effort to support our customers after the purchase of our portable power source products.

Pursue Strategic Relationships. We intend to develop and expand strategic relationships to enhance our ability to offer value-added customer solutions, penetrate new markets, and strengthen the technological leadership of our portable power source products.

Products

Portable Power Source Products

We are developing three product categories of our Mobion technology: (i) external power charger products, (ii) snap-on or attached power source products, and (iii) embedded power source products. In addition, we are working with our strategic partners and suppliers to develop disposable methanol cartridges that will be used to fuel our portable power source products. Through our alliance with Duracell, we are developing fuel cartridges that will be designed and branded for mass market commercialization. Duracell has experience in the sale and distribution of portable power through its battery products, as well as in the development, distribution, and sale of liquid products with similar safety and packaging requirements as the 100% methanol cartridges.

External Power Charger: Our design for an external power charger is a standalone device that uses a standard and widely used universal serial bus, or USB, interface as a power output connector that can be used to recharge handheld mobile devices. Our current design for the device is roughly the size of two decks of playing cards (see photo below) and employs a 100% methanol fuel cartridge, which occupies the same volume as a pack of chewing gum. Our current prototype external power charger provides up to one month of power for the typical mobile phone. It can be designed to enable a professional photographer to take over 5,000 pictures using a high end digital camera from a single fuel tank. Our device

is designed to provide 2.5 watts of power from its USB interface and also offer fast charge, ultra-long run time and self-charging modes.

Mobion external power charger prototypes

Snap-on or Attached Power Source Products: Similar to aftermarket battery attachments, our snap-on direct methanol fuel cell power solution is an attached power supply that is compatible with existing portable electronic devices and offers users extended run-time power. In this category, we envision a number of product applications, including attachments for digital cameras, portable media players, GPS devices, and other consumer and electronic products. Our initial design is a direct methanol fuel cell camera-grip (see photo below) that replaces comparable rechargeable lithium-ion battery-pack grips and is designed to provide twice as much energy as similar rechargeable lithium-ion battery-based products. Our Mobion direct methanol fuel cell camera grip allows photographers the benefits of extended usage plus the freedom to refill using a methanol cartridge rather than by plugging into a wall outlet.

Sample Mobion attached power source camera-grip prototype

Embedded power source products: Our goal is to produce direct methanol fuel cells that can be embedded into portable electronic devices in order to increase their run time and to provide fast charge capability by hot-swapping 100% methanol cartridges. We have developed an embedded fuel cell concept model (see photo below) designed for a smart phone and believe that this concept model highlights the anticipated future product direction for our portable power source products in the consumer market.

Concept model of a smart phone with an

embedded Mobion power source

Advantages of our Portable Power Source Products

We believe that our portable power source products will offer the following advantages:

- *Off-the-grid power source.* Our products provide users of consumer electronic devices with mobility by providing power without having to attach to a wall outlet to recharge their devices.
- *Small size and low weight.* The dimensions of our products will enable our OEM customers to reduce the overall size and weight of their products.
- *Power density.* Our products will have power density of over 50 mW/cm^2 and high energy efficiencies of 1.4 Wh/cc of methanol.

- *Power duration.* Our products will offer longer run time than currently available portable charging systems.
- *Ease of manufacturing.* Our products will be manufactured using traditional injection molding techniques that will easily transfer to mass-manufacturing production lines.
- *Safety.* Our products will utilize methanol fuel, which does not require storage under pressure or at low temperatures.
- *Environmentally friendly.* Our products will utilize fully biodegradable methanol fuel.

Codes and Standards

In 2004, we became the world's first company to obtain micro fuel cell safety compliance certifications for a fuel cell product from Underwriter's Laboratory and CSA International. In addition, we received United Nations packaging certification and our methanol cartridges were deemed compliant by the U.S. Department of Transportation for worldwide cargo shipment. Certification is required for every commercial product prior to its shipment. Based upon our previous experiences with these regulatory agencies, we do not anticipate delays associated with seeking Underwriter's Laboratory and CSA International product certifications for our commercial products, which are anticipated to begin shipping in 2009.

Also, we helped to develop a proposal adopted by the United Nations to provide methanol fuel cartridges a separate classification and we worked with other micro fuel cell companies, and the appropriate regulatory bodies, to generate the first draft of the international standards for methanol safety and use related to transport on commercial airplanes.

As a result of our industry coalition efforts, the International Civil Aviation Organization technical instructions and the International Air Transport Association Dangerous Goods Regulations now permit airline passengers and crew to carry on and use certain fuel cell power systems and fuel cell cartridges containing methanol. The U.S. Department of Transportation is currently reviewing the International Civil Aviation Organization and International Air Transport Association air transport regulations and issued a notice of proposed rulemaking on September 20, 2007 to adopt the International Civil Aviation Organization passenger allowance and harmonize the U.S. requirements with the international standard. The public comment period on these proposed rules closed on November 19, 2007. We expect the U.S. Department of Transportation to adopt its proposed rules during 2008.

Test and Measurement Instrumentation Products

We are a global supplier of computerized gauging instruments, metrology systems for semiconductor wafers, and jet engine balancing systems.

General Dimensional Gauging: Our gauging instruments employ fiber optic, laser, and capacitance technologies to make precision measurements in product design, production, and quality related processes. Our gauging instruments include capacitance gauging systems offering ultra-high precision measurement, a fiber-optic based vibration sensor system with extremely high frequency response, a high-speed laser sensor system utilizing the latest complementary metal-oxide semiconductor/charge-coupled device technology, and a stand-alone data acquisition system that incorporates multiple sensor technologies. These products are targeted towards the data storage, semiconductor, and automotive industries.

Semiconductor: Our family of wafer metrology systems range from manually operated units to fully automated systems, which test key wafer characteristics critical to producing high-quality chips used in the semiconductor industry. These units are used as quality control tools delivering highly precise measurements for thickness variations, bow, warp, resistivity, and flatness. These systems can be used on substrates varying widely in size and materials. Our wafer metrology systems include an automated wafer characterization system, a semi-automated, full wafer surface scanning system, and a device that provides for manual, non-contact measurements.

Jet Engine Balancing Systems: Our portable and test cell balance systems automatically collect and record aircraft engine vibration data, identify vibration or balance issues in an engine, and calculate a solution to the problem. These units are used by major aircraft engine manufacturers, the

U.S. Air Force, other military and commercial airlines and gas turbine manufacturers.

Technology

A fuel cell is an electrochemical energy conversion device, which is similar to a battery, that produces electricity from a liquid or gaseous fuel, such as methanol, and an oxidant, such as oxygen. Fuel cells are different from batteries in that they consume a reactant, which must be replenished, while batteries store electrical energy chemically in a closed system. Generally, the reactants flow in and reaction products flow out of the fuel cell. While the electrodes within a battery react and change as a battery is charged or discharged, a fuel cell's electrodes are catalytic and relatively stable.

The direct methanol fuel cell relies upon the reaction of water with methanol at the catalytic anode layer to release protons and electrons, and form carbon dioxide. The electrons pass through a circuit and generate electricity that can be used to power external devices. The protons generated through this reaction pass through the proton exchange membrane to the cathode, where they combine to form water. The anode and cathode layers of a direct methanol fuel cell are usually made of platinum particles and platinum ruthenium particles embedded on either side of a proton exchange membrane.

Methanol fuel cells need water at the anode and therefore pure methanol cannot be used without the provision of water via either active transport, such as the pumping of water generated at the cathode back to the anode layer (see Chart A), or a passive recirculation mechanism that incorporates pressurized internal ducts or piping. Without either an active or a passive recirculation mechanism, a direct methanol fuel cell would require the inclusion of water as a dilutant in the methanol fuel, which limits the energy content of the diluted fuel (see Chart B).

Direct Methanol Fuel Cell with Active Water Transport (Chart A)

Methanol Fuel Cell With Water As A Fuel Dilutant (Chart B)

Our Mobion technology eliminates the need for active water recirculation pumps or the inclusion of water as a fuel dilutant. The water required for reaction at the anode is transferred internally within the Mobion Chip from the site of water generation on the air-side of the cell through a proprietary, passive design that eliminates the need for water movement by external pumps, complicated re-circulation loops or other micro-plumbing tools (see Chart C).

Our Mobion Technology with 100% Methanol and Passive Water Recirculation (Chart C)

Our Mobion solution contains a passive water recirculation sub-system that allows for the consumption of 100% methanol, results in a reduced parts count design and offers the advantage of higher energy density than competing fuel cell technologies for portable electronic devices.

Strategic Agreements

On May 16, 2006, we entered into an alliance with Samsung Electronics Co., Ltd., or Samsung, to develop next-generation fuel cell prototypes for Samsung's mobile phone business. We developed, and together with Samsung we jointly tested and evaluated, our Mobion technology for several Samsung mobile phone applications. We are continuing to work with Samsung on a non-exclusive collaboration under which we continue to refine our Mobion baseline product design. We will share development updates with Samsung and loan them prototypes for evaluation. Samsung may also request changes to product specifications until December 2008 and may purchase commercial samples as soon as they become available.

On September 19, 2003, we entered into a strategic alliance agreement with the Duracell division of The Gillette Company, or Duracell, under which we agreed to work with Duracell to develop and commercialize complementary methanol fuel cell products to power mass market, high-volume portable consumer devices. The agreement provides for a multi-year partnership for the design, development, and commercialization of a low power direct methanol fuel cell power system and a compatible fuel refill system. The arrangement provides for us to receive a percentage of net revenues related to Duracell's sale of fuel refills for methanol fuel cells. The agreement gives Duracell the ability to make equity investments in MTI Micro. Duracell has made an initial $1.0 million investment in MTI Micro common stock and may make additional investments of up to $4.0 million, subject to agreed upon milestones related to technical and marketing progress. Any further investment by Duracell in MTI Micro will effectively dilute our ownership interest in MTI Micro, although we do not believe that such dilution will be substantial.

On August 1, 2004, we entered into a $6.1 million cost-shared development contract with the U.S. Department of Energy, or the DOE, for the development of manufacturing techniques and the optimization of our Mobion product solutions. Through February 2008, the DOE has authorized $5.5 million of spending on a cost-shared basis.

On December 13, 2007, we entered into an agreement with Trident Systems, Inc. to pursue opportunities to leverage our consumer market platform into low-power military markets. Teaming opportunities include demonstrations of unattended ground sensor prototypes powered by Mobion and evaluations and potential submissions of proposals for military programs.

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Manufacturing

We plan to outsource manufacturing of our portable power source products through third-party relationship contract manufacturers. We believe this strategy will provide us with a business model that allows us to concentrate on our core competencies of research and development and technological know-how and reduce our capital expenditures. In addition, this strategy will significantly reduce our working capital requirements for inventory because we will not incur most of our manufacturing costs until we have actually shipped our portable power source products to our customers and billed those customers for those products. To date, we have established an internal developmental pilot production line to test our design and engineering capabilities. Although we have developed an internal developmental pilot production line, we intend to rely upon third parties to forecast production requirements and have established the basic design, function, and performance of our in-house engineering capabilities to foster the successful commercialization of our products.

The commercialization of our Mobion power solution will depend upon our ability to reduce the costs of our portable power source products, as they are currently more expensive than existing rechargeable battery technologies. In addition, we continue to work on enhancing our Mobion power source, including our injection molded Mobion Chip, design to ensure its manufacturability (including engineering, verification and product testing), design for assembly, design for testability, and design for serviceability, all of which are critical to successful high-volume production.

We assemble and test our test and instrumentation measurement products at our facilities located in Albany, New York. We believe that our existing assembly and test capacity is sufficient to meet our current needs and short-term future requirements. We believe that most of the raw materials used in our test and measurement products are readily available from a variety of vendors.

Sales and Marketing

We plan to sell our portable power source products for incorporation into the products of our OEM customers or to be sold as accessories through them. We plan to generate sales to OEM customers through direct sales employees as well as outside sales representatives and distributors. We have recently established sales representatives in South Korea and Japan.

We build awareness in our target markets through a series of targeted campaigns, which include our website, e-mails, conferences, tradeshows, and other standard marketing efforts. In addition, we monitor developments in the portable power industry through subscriptions with well known firms such as Frost and Sullivan, a wide array of publications, active public relations, updates with industry analysts and the investment community, and speaking engagements.

We market our test and measurement instrumentation products through a combination of direct sales personnel and domestic and international distributors. We expect this business to continue to achieve double digit year over year growth.

Customers

We expect that our customers for our portable power source products will include a number of the world’s largest electronic device OEMs.

Sales of our test and measurement instrumentation products to Koyo, our Japanese distributor, and the U.S. Air Force accounted for 27.8% and 26.4%, respectively, of product revenue in 2007. In 2006, sales to the U.S. Air Force and Koyo accounted for 23.1% and 22.9%, respectively, of product revenue. No other customer accounted for more than 10% of our product revenue in either 2006 or 2007.

Competition

We expect that the primary competitive factor in our portable power source business will be market acceptance of our portable power source products as an alternative power source to conventional lithium-ion and other rechargeable batteries. Market acceptance of our portable power source products will depend on a wide variety of factors, including the compatibility of direct methanol fuel cell power sources with portable electronic devices and the market's assessment of the advantages offered by our products in terms of size, weight, power density and duration, safety, reliability, and environmental friendliness when measured against price disadvantages. We anticipate direct competition from large Asian-based companies and some of our potential OEM customers.

Competition in the sale of our measurement and instrumentation products is based on product quality, performance, price, and timely delivery. Our competitors for test and measurement instrumentation products include National Instruments, KLA-Tencor, Capacitec, Sigma Tech, Corning Tropel, Chadwick-Helmuth, ACES Systems, Micro-Epsilon, and Keyence.

Product Development

Over the past two years, we have developed and built a number of engineering prototypes used to validate our technology and to generate discussions with potential customers about the inclusion of our technology in new products. During the same period, we have created three generations of external power charger prototypes, each of which has shown a dramatic size reduction over the previous generation. Our latest external power charger prototype achieved a 60% reduction in volume over our first generation prototype.

We have improved the capabilities of our Mobion Chip technology during the last two years, which we expect will continue to evolve as we integrate greater functionality into our designs. This continuous iterative integration process is intended to reduce the size, simplify the design and construction, and reduce assembly complexity of our technology. We continue to improve the product design of the Mobion Chip and believe that future product generations will deliver performance improvements in terms of energy density, size, weight, and power duration and should be able to power wireless electronic devices for longer periods of time than rechargeable lithium-ion batteries.

Intellectual Property and Proprietary Rights

We rely on a combination of patent (both national and international), trade secret, trademark, and copyright protection to protect our intellectual property. Our strategy is to apply for patent protection for all significant design requirements. Additionally, we systematically analyze the existing intellectual property landscape for direct methanol fuel cells to determine where the greatest opportunities for developing intellectual property exist. We also enter into standard confidentiality agreements with our employees, consultants, vendors, partners and potential customers and seek to control access to and distribution of our proprietary information.

As of December 31, 2007, we had filed over 90 U.S. patent applications, 43 of which have been awarded. Of the awarded patents, 34 are assigned to us and 9 are assigned to Duracell as part of our strategic alliance agreement with them. We have filed 22 Patent Cooperation Treaty Applications and have filed for National Phase Patent Protection for 12 pieces of intellectual property in multiple countries, including Japan, the European Union, and South Korea. We have developed a portfolio of patent applications in areas including fuel cell systems, components, controls, manufacturing processes, and system packaging.

Research and Development

Our research and development team is responsible for advanced research, product planning, design and development, and quality assurance. Through our supply chain, we are also working with subcontractors in developing specific components of our technologies.

The primary objective of our research and development program is to advance the development of our direct methanol fuel cell technology to enhance the commercial value of our products and technology, as well as to develop next generation fuel cell products.

We have incurred research and development costs of approximately $9.7 million, $12.9 million and $11.8 million for the years ended December 31, 2005, 2006, and 2007, respectively. We expect to continue to invest in research and development in the future.

Employees

As of December 31, 2007, we had 107 employees compared with 132 as of December 31, 2006. Of these employees, 46 were involved in our portable power source business (including 25 scientists and engineers, of whom 18 had advanced degrees) and 46 were involved in our test and measurement instrumentation business. Fifteen of our employees are involved in corporate functions.

Properties

We presently lease two premises, one located at 325 Washington Avenue Extension, Albany, New York and the other at 431 New Karner Road, Albany, New York. Both leases expire at the end of 2009. The 325 Washington Avenue Extension premise consists of approximately 20,700 useable square feet of space, and the 431 New Karner Road consists of approximately 23,500 useable square feet of space. Together, the premises are adequate for our current and foreseeable needs.

Legal Proceedings

We are not currently involved in any legal proceeding that we believe would have a material adverse effect on our business or financial condition.

Availability of Information

We make available through our website (http://www.mechtech.com), free of charge, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports, filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, as soon as reasonably practicable after such reports are electronically filed with, or furnished to, the SEC. These reports may be accessed through our website's Investor Relations page.

The public may read and copy any materials we file with the SEC at the SEC Public Reference Room at 100 F Street, NE, Room 1580, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. We file electronically with the SEC and the SEC maintains an Internet site (http://www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

Item 1A: Risk Factors

Factors Affecting Future Results

This Annual Report on Form 10-K and the documents we have filed with the SEC that are incorporated by reference into this Annual Report on Form 10-K contain forward-looking statements that involve risks and uncertainties. Any statements contained, or incorporated by reference, in this Form 10-K that are not statements of historical fact may be forward-looking statements. When we use the words “anticipate,” “estimate,” “plans,” “projects,” “continuing,” “ongoing,” “expects,” “management believes,” “we believe,” “we intend,” “should,” “could,” “may,” “will” and similar words or are identifying forward-looking statements. Forward-looking statements involve risks, uncertainties, estimates and assumptions which may cause our actual results, performance or achievements to be materially different from those expressed or implied by forward-looking statements. These factors include, among others:

- our history of recurring net losses and the risk of continued net losses;
- our independent auditors raising substantial concern about our ability to continue as a going concern;
- the potential delisting of our common stock from The Nasdaq Global Market;
- sales revenue growth of our test and measurement instrumentation business may not be achieved;
- the dependence of our test and measurement instrumentation business on a small number of customers and potential loss of government funding;
- risks related to developing Mobion direct methanol fuel cells and whether we will ever successfully develop reliable and commercially viable Mobion fuel cell solutions;
- our need to raise additional financing;
- risks relating to the market price of Plug Power common stock;
- the risk that current regulations will not be changed to permit methanol to be carried onto airplanes;
- our portable power source products or our customers’ products that utilize our portable power source products may not be accepted by the market;
- our inability to build and maintain relationships with our customers;
- our limited experience in manufacturing fuel cell systems on a commercial basis;
- our dependence on others for our production requirements for our portable power source products;
- our dependence on our manufacturing subcontractors to maintain high levels of productivity and satisfactory delivery schedules for our portable power source products;
- our dependence on third-party suppliers for most of the manufacturing equipment necessary to produce our portable power source products;
- our inability to obtain sufficient quantities of components and other materials, including platinum and ruthenium, necessary for the production of our portable power source products;
- our dependence on OEMs integrating Mobion fuel cell systems into their devices;
- our lack of long-term purchase commitments from our customers and the ability of our customers to cancel, reduce, or delay orders for our products;
- risks related to protection and infringement of intellectual property;
- our new technologies may not result in customer or market acceptance;
- our ability to commercialize our proposed portable power source solutions and develop new product solutions on a timely basis;
- our ability to develop and utilize new technologies that address the needs of our customers;
- intense competition in the direct methanol fuel cell and instrumentation businesses;
- change in policies by U.S. or foreign governments that hinder, disrupt or economically disadvantage international trade;
- the impact of future exchange rate fluctuations;
- uncertainty of the U.S. economy;
- the historical volatility of our stock price;
- the cyclical nature of the electronics industry;
- failure of our strategic alliances to achieve their objectives or perform as contemplated and the risk of cancellation or early termination of such alliance by either party;

- product liability or defects;
- risks related to the flammable nature of methanol as a fuel source;
- the loss of services of one or more of our key employees or the inability to hire, train, and retain key personnel;
- significant periodic and seasonal quarterly fluctuations in our results of operations; and
- other factors referred to under the caption “Risk Factors” below.

Except as may be required by applicable law, we do not undertake or intend to update or revise our forward-looking statements, and we assume no obligation to update any forward-looking statements contained in, or incorporated by reference into, this Annual Report on Form 10-K as a result of new information or future events or developments. Thus, assumptions should not be made that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements.

Risk Factors

Set forth below are certain risks and uncertainties that could adversely affect our results of operations or financial condition and cause our actual results to differ materially from those expressed in our forward-looking statements. Also refer to Factors Affecting Future Results.

We have incurred recurring net losses and anticipate continued net losses as we execute our commercialization plan for our portable power source business.

We have incurred recurring net losses, including net losses of $15.1 million in 2005, $13.7 million in 2006, and $9.6 million in 2007, which includes a net gain of $2.5 million from the sale of securities available for sale and a net gain of $3.0 million on derivatives in 2007. As a result of ongoing operating losses, we had an accumulated deficit of approximately $105.1 million as of December 31, 2007. We expect to continue to make significant expenditures and incur substantial expenses as we develop and commercialize our proposed portable power source products; develop our manufacturing, sales, and distribution networks; implement internal systems and infrastructure; and hire additional personnel. As a result, we expect to continue to incur continued significant losses as we execute our plan to commercialize our portable power source business and may never achieve or maintain profitability. We will be unable to satisfy our current obligations solely from cash generated from operations or become profitable until we successfully commercialize our portable power source business. If we continue to incur substantial losses and are unable to secure additional sources of funding, we could be forced to discontinue or curtail our business operations; sell assets at unfavorable prices; or merge, consolidate, or combine with a company with greater financial resources in a transaction that may be unfavorable to us.

We have received a going concern report from our independent auditors.

Our auditors have included an explanatory paragraph in their opinion that accompanies our audited consolidated financial statements as of December 31, 2007, indicating that our recurring losses from operations, net capital deficiency, and current liquidity position raise substantial doubt about our ability to continue as a going concern. The accompanying consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Our common stock may be delisted from The Nasdaq Global Market, which may adversely affect our ability to raise capital and stockholders' ability to sell their shares.

Nasdaq notified us on January 9, 2008 that our common stock could be delisted from The Nasdaq Global Market for failure to maintain a minimum bid price of $1.00 and that we had until July 7, 2008 to regain compliance with the listing standards of such market. To regain compliance, the closing bid price of our common stock must meet or exceed $1.00 per share for a minimum of 10 consecutive business days. If compliance is not regained, Nasdaq will notify us of its determination to delist our common stock, which we may appeal to its listings qualification panel. We may alternatively apply to transfer our common stock to The Nasdaq Capital Market if we satisfy all of its requirements, other than the minimum bid price, for initial inclusion on such market. If we elect to apply for such a transfer and if such application is approved, we will be afforded the remainder of a second 180 calendar day-period to regain compliance with the minimum bid price rule while listed on The Nasdaq Capital Market. A delisting from The Nasdaq Global Market may result in a decline of the price of our common stock and adversely affect our ability to raise capital through the sale of common stock.

We currently derive all of our product revenue from our test and measurement instrumentation business, but our principal focus is the development and commercialization of our portable power source business.

We currently derive all of our product revenue from our test and measurement instrumentation business, but our principal focus is the development and commercialization of our portable power source business. Our test and measurement instrumentation business is subject to a number of risks, including the following:

- a slow down or cancellation of sales to the military as a result of a potential redeployment of governmental funding;

- a failure to expand the business as a result of competition, a lack of brand awareness, or market saturation; and
- an inability to launch new products as a result of intensive competition, uncertainty of new technology development, and developmental timelines.

In addition, our test and measurement instrumentation products can be sold in quantity to a relatively few number of customers, resulting in a customer concentration risk. The loss of any significant portion of such customers or a material adverse change in the financial condition of any one of these customers could have a material adverse effect on our business.

We have not generated any product revenue from our portable power source business and currently have no portable power source commercial products.

We have not generated any product revenue from our portable power source business and currently have no portable power source commercial products. The successful development and commercialization of our portable power source products will depend on a number of factors, including the following:

- continuing our research and development efforts;
- finalizing the design of our portable power source products;
- securing OEM customers to incorporate our portable power source products into products sold by them;
- arranging for adequate manufacturing capabilities; and
- completing, refining, and managing our supply chain and distribution channels.

Additionally, our technology is new and complex, and there may be technical barriers to the development of our portable power source products. The development of our portable power source products may not succeed or may be significantly delayed. Our portable power source products will be produced through manufacturing arrangements that have not been finalized or tested on a commercial scale. If we fail to successfully develop or experience significant delays in the development of our portable power source products, or if there are significant delays in commercialization, we are unlikely to recover those losses, thus making it impossible for us to become profitable through the sales of these products. This would materially and adversely affect our business and financial condition. If adequate funds are not available, we may have to delay development or commercialization of our portable power source products or license to third parties the rights to commercialize products or technologies that we would otherwise seek to commercialize. Any of these factors could harm our business and financial condition.

Any revenue derived in the relatively near relating to our portable power source business likely will result from governmental contracts or other governmental funding. We can offer no assurance that we will be able to secure continued government funding. The loss of such contracts and the inability to obtain additionally contracts could materially harm our business.

We currently do not have sufficient funds to commercialize our portable power source products.

We will need additional funding to commercialize our portable power source business. If we are unable to secure the necessary additional funding or to raise funds from the sale of our test and measurement instrumentation business should we determine to do so, we may need to delay further commercialization plans. In order to conserve cash and extend operations while we pursue any additional necessary financing, we would be required to reduce operating expenses. There is no assurance that funds raised in any such a financing will be sufficient, that the financing will be available on terms favorable to us or to existing stockholders and at such times as required, or that we will be able to obtain the additional financing required for the continued operation and growth of our business. If we raise additional funds by issuing equity securities, our stockholders will experience dilution. Debt financing, if available, may involve restrictive covenants. Any debt financing or additional equity financing may contain terms that are not favorable to us or our stockholders. If we raise additional funds through collaboration and licensing arrangements with third parties, it may be necessary to relinquish some rights to our technologies or our products, or grant licenses on terms that are not favorable to us. If we are unable to raise adequate funds, we may have to liquidate some or all of our assets or delay, reduce the scope of or eliminate some or all of our research and development programs.

A primary asset of our company is the Plug Power common stock we own. As of December 31, 2007, we owned 1,137,166 shares of Plug Power common stock. Plug Power common stock is traded on The Nasdaq Global Market. The market price of the Plug Power common stock may fluctuate as a result of market conditions and other factors over which we have no control. Fluctuations in the market price of Plug Power's common stock may result in a reduction of resources available to fund operations, which could result in our requiring additional funding sooner than anticipated.

If current U.S. Department of Transportation, Federal Aviation Administration, and certain international regulations do not change, passengers will be unable to carry methanol in the passenger compartments of airplanes, which would adversely affect our sales and results of operations.

Current airline and Federal Aviation Administration regulations and certain international laws, regulations, and treaties limit the amount and concentration of methanol that any passenger can carry onboard passenger planes. We believe that these regulations must change for mass commercialization of Mobion technology products to be possible. The implementation by the U.S. Department of Transportation, the Federal Aviation Administration, and other similar international bodies of regulatory changes approved by the International Civil Aviation Organization will permit direct methanol fuel cell systems and refill cartridges to be carried in the passenger compartment of airplanes. If these regulations are not implemented, it would materially and adversely affect our ability to achieve mass commercialization of Mobion technology products and have a material adverse effect on our business plans, prospects, results of operations, and financial condition.

Our portable power source products may not be accepted by the market.

Any portable power source products that we develop may not achieve market acceptance. The development of a successful market for our proposed portable power source products and our ability to sell those products at favorable prices may be adversely affected by a number of factors, many of which are beyond our control, including the following:

- our failure to produce portable power source products that compete favorably against other products on the basis of price, quality, performance, and life;
- competition from conventional lithium-ion or other rechargeable battery systems;
- the ability of our technologies and product solutions to address the needs of the electronic device markets, the requirements of OEMs, and the preferences of end users;
- our ability to provide OEMs with portable power source products that provide advantages in terms of size, weight, peak power, power duration, reliability, durability, performance, and value-added features compared to alternative solutions; and
- our failure to develop and maintain successful relationships with OEMs, manufacturers, distributors, and others as well as strategic partners.

Target markets for our proposed portable power source products, such as those for smart phones, digital cameras, and portable media players, are volatile, cyclical, and rapidly changing and could continue to utilize existing technology or adopt other new competing technologies. The market for certain of these products depends in part upon the development and deployment of wireless and other technologies, which may or may not address the needs of users of these new products.

Many manufacturers of portable electronic devices have well-established relationships with competitive suppliers. Penetrating these markets will require us to offer better performance alternatives to existing solutions at competitive costs. The failure of any of our target markets to continue to expand, or our failure to penetrate these markets to a significant extent, will impede our sales growth. We cannot predict the growth rate of these markets or the market share we will achieve in these markets in the future.

If our proposed portable power source products fail to gain market acceptance, it could materially and adversely affect our business and financial condition.

Market acceptance of our customers' products that utilize our portable power source products may decline or may not develop and, as a result, our sales will be harmed.

We currently do not anticipate selling our portable power source products directly to end users. Instead, we plan to produce portable power source products that our OEM customers incorporate into their products. As a result, the success of our proposed portable power source products will depend upon the widespread market acceptance of the products of our OEM customers. We will not control or influence the manufacture, promotion, distribution, or pricing of the products that incorporate our portable power source products. Instead, we will depend on our OEM customers to manufacture and distribute products incorporating our portable power source products and to generate consumer demand through their marketing and promotional activities. Even if our technologies and products successfully meet our customers' price and performance goals, our sales would be harmed if our OEM customers do not achieve commercial success in selling their products to consumers that incorporate our portable power source products.

Any lack of adoption in the use of our portable power source products by OEM customers in the electronic device markets, the reduced demand for our OEM customers' products, or a slowdown in their markets would adversely affect our sales.

If we fail to build and maintain relationships with our customers and do not satisfy our customers, we may lose future sales and our revenue may stagnate or decline.

Because our success depends on the widespread market acceptance of our customers' products, we must develop and maintain our relationships with leading global OEMs of electronic devices, such as smart phones, digital cameras, and portable media players. In addition, we must identify areas of significant growth potential in other markets, establish relationships with OEMs in those markets, and assist them in developing products that use our portable power source products and technologies. Our failure to identify potential growth opportunities, particularly in new markets, or establish and maintain relationships with OEMs in those markets, would prevent our business from growing in those markets.

Our ability to meet the expectations of our customers will require us to provide portable power source products for customers on a timely and cost-effective basis and to maintain customer satisfaction with our product solutions. We must match our design and production capacity with customer demand, maintain satisfactory delivery schedules, and meet specific performance goals. If we are unable to achieve these goals for any reason, our customers could reduce their purchases from us and our sales would decline or fail to develop.

Our customer relationships also can be affected by factors affecting our customers that are unrelated to our performance. These factors can include a myriad of situations, including business reversals of customers, determinations by customers to change their product mix or abandon business segments, or mergers, consolidations, or acquisitions involving our customers.

We have no experience manufacturing portable power source products on a commercial scale.

To date, we have focused primarily on research, development, and pilot production, and we have no experience manufacturing any portable power source products on a commercial scale. Our pilot production efforts to date have been limited in scale. It is our intent to manufacture our portable power source products through OEM customers and third-party manufacturers. Failure to secure manufacturing capabilities could materially and adversely affect our business and financial condition.

We will rely on others for our production, and any interruptions of these arrangements could disrupt our ability to fill our customers' orders.

We plan to rely on others for all of our production requirements for our portable power source products. The majority of this manufacturing is anticipated to be conducted in Asia by manufacturing subcontractors that also perform services for numerous other companies. We do not expect to have a guaranteed level of production capacity with any of our manufacturing subcontractors. Qualifying new manufacturing subcontractors is time consuming and might result in unforeseen manufacturing and operations problems. The loss of our relationships with our manufacturing subcontractors or assemblers or their inability to conduct their manufacturing and assembly services for us as anticipated in terms of cost, quality, and timeliness could adversely affect our ability to fill customer orders in accordance with required delivery, quality, and performance requirements. If this were to occur, the resulting decline in revenue would harm our business.

We will depend on third parties to maintain satisfactory manufacturing yields and delivery schedules, and their inability to do so could increase our costs, disrupt our supply chain, and result in our inability to deliver our portable power source products, which would adversely affect our results of operations.

We will depend on our manufacturing subcontractors to maintain high levels of productivity and satisfactory delivery schedules for our portable power source products from manufacturing and assembly facilities likely located primarily in Asia. We plan to provide our manufacturing subcontractors with rolling forecasts of our production requirements. We do not, however, anticipate having long-term agreements with any of our manufacturing subcontractors that guarantee production capacity, prices, lead times, or delivery schedules. Our manufacturing subcontractors will serve other customers, many of which will have greater production requirements than we do. As a result, our manufacturing subcontractors could determine to prioritize production capacity for other customers or reduce or eliminate deliveries to us on short notice. We may experience lower than anticipated manufacturing yields and lengthening of delivery schedules. Lower than expected manufacturing yields could increase our costs or disrupt our supply chain. We may encounter lower manufacturing yields and longer delivery schedules while commencing volume production of any new products. Any of these problems could result in our inability to deliver our product solutions in a timely manner and adversely affect our operating results.

We plan to rely on third-party suppliers for most of our manufacturing equipment.

We plan to rely on third-party suppliers for most of the manufacturing equipment necessary to produce our portable power source products. The failure of suppliers to supply manufacturing equipment in a timely manner or on commercially reasonable terms could delay our commercialization plans and otherwise disrupt our production schedules or increase our manufacturing costs. Further, our orders with certain of our suppliers may represent a very small portion of their total orders. As a result, they may not give priority to our business, leading to potential delays in or cancellation of our orders. If any single-source supplier were to fail to supply our needs on a timely basis or cease providing us with key components, we would be required to substitute suppliers. We may have difficulty identifying a substitute supplier in a timely manner and on commercially reasonable terms. If this were to occur, our business would be harmed.

Shortages of components and raw materials may delay or reduce our sales and increase our costs, thereby harming our results of operations.

The inability to obtain sufficient quantities of components and other materials, including platinum and ruthenium, necessary for the production of our portable power source products could result in reduced or delayed sales or lost orders. Any delay in or loss of sales could adversely impact our operating results. Many of the materials used in the production of our portable power source products will be available only from a limited number of foreign suppliers, particularly suppliers located in Asia. In most cases, neither we nor our manufacturing subcontractors will

have long-term supply contracts with these suppliers. As a result, we will be subject to economic instability in these Asian countries as well as to increased costs, supply interruptions, and difficulties in obtaining materials. Our customers also may encounter difficulties or increased costs in obtaining the materials necessary to produce their products into which our product solutions are incorporated.

From time to time, materials and components necessary for our portable power source products or in other aspects of our customers' products may be subject to allocation because of shortages of these materials and components. Shortages in the future could cause delayed shipments, customer dissatisfaction, and lower revenue.

We will be subject to lengthy development periods and product acceptance cycles, which can result in development and engineering costs without any future revenue.

We plan to provide portable power source solutions that are incorporated by OEMs into the products they sell. OEMs will make the determination during their product development programs whether to incorporate our portable power source solutions or pursue other alternatives. This process may require us to make significant investments of time and resources in the design of portable power source solutions well before our customers introduce their products incorporating our product solutions and before we can be sure that we will generate any significant sales to our customers or even recover our investment. During a customer's entire product development process, we will face the risk that our portable power source products will fail to meet our customer's technical, performance, or cost requirements or that our products will be replaced by competitive products or alternative technological solutions. Even if we complete our design process in a manner satisfactory to our customer, the customer may decide to delay or terminate its product development efforts. The occurrence of any of these events could cause sales to not materialize, to be deferred, or to be cancelled, which would adversely affect our operating results.

We will not have long-term purchase commitments from our customers, and their ability to cancel, reduce, or delay orders could reduce our revenue and increase our costs.

Customers for our portable power source products will not provide us with firm, long-term volume purchase commitments, but instead will issue purchase orders to buy a specified number of units. As a result, customers may be able to cancel purchase orders or reduce or delay orders at any time. The cancellation, delay, or reduction of customer purchase orders could result in reduced revenue, excess inventory, and unabsorbed overhead. We currently have no presence in the electronic device markets. Our success in the electronic device markets will require us to establish the value added proposition of our products to OEMs that have traditionally used other portable power solutions. All of the markets we plan to serve are subject to severe competitive pressures, rapid technological change and product obsolescence, which may increase our inventory and overhead risks, resulting in increased costs.

Variability of customer requirements resulting in cancellations, reductions, or delays may adversely affect our operating results.

We will be required to provide rapid product turnaround and respond to short lead times. A variety of conditions, both specific to individual customers and generally affecting the demand for OEMs' products, may cause customers to cancel, reduce, or delay orders. Cancellations, reductions, or delays by a significant customer or by a group of customers could adversely affect our operating results. Customers may require rapid increases in production, which could strain our resources and reduce our margins.

If we are unable to adequately protect our intellectual property, our competitors and other third parties could produce products based on our intellectual property, which would substantially impair our ability to compete.

Our success and ability to compete depends in part upon our ability to maintain the proprietary nature of our technologies. We rely on a combination of patent, trade secret, copyright, and trademark law and license agreements, as well as nondisclosure agreements, to protect our intellectual property. These legal means, however, afford only limited protection and may not be adequate to protect our intellectual property rights. We cannot be certain that we were the first creator of inventions covered by pending patent applications or the first to file patent applications on these inventions. In addition, we cannot be sure that any of our pending patent applications will issue. The United States Patent and Trademark Office, or other foreign patent and trademark offices may deny or significantly narrow claims made under our patent applications and, even if issued, these patents may be successfully challenged, designed around, or may otherwise not provide us with any commercial protection.

We may in the future need to assert claims of infringement against third parties to protect our intellectual property. Regardless of the final outcome, any litigation to enforce our intellectual property rights in patents, copyrights, or trademarks could be highly unpredictable and result in substantial costs and diversion of resources, which could have a material and adverse effect on our business and financial condition. In the event of an adverse judgment, a court could hold that some or all of our asserted intellectual property rights are not infringed, or are invalid or unenforceable, and could award attorneys' fees to the other party.

We may become subject to claims of infringement or misappropriation of the intellectual property rights of others, which could prohibit us from selling our products, require us to obtain licenses from third parties or to develop non-infringing alternatives, and subject us to substantial monetary damages and injunctive relief.

We may receive notices from third parties that the manufacture, use, or sale of any products we develop infringes one or more claims of their patents. Moreover, because patent applications can take many years to issue, there may be currently pending applications, unknown to us, which may later result in issued patents that materially and adversely affect our business. Third parties could also assert infringement or misappropriation claims against us with respect to our future product offerings, if any. Whether or not such claims are valid, we cannot be certain that we have not infringed the intellectual property rights of such third parties. Any infringement or misappropriation claim could result in significant costs, substantial damages, and our inability to manufacture, market, or sell any of our product offerings that are found to infringe. Even if we were to prevail in any such action, the litigation

could result in substantial cost and diversion of resources that could materially and adversely affect our business. If a court determined, or if we independently discovered, that our product offerings violated third-party proprietary rights, there can be no assurance that we would be able to re-engineer our product offerings to avoid those rights or obtain a license under those rights on commercially reasonable terms, if at all. As a result, we could be prohibited from selling products that are found to infringe upon the rights of others. Even if obtaining a license were feasible, it may be costly and time-consuming. A court could also enter orders that temporarily, preliminarily, or permanently enjoin us from making, using, selling, offering to sell, or importing our portable power source products, or could enter orders mandating that we undertake certain remedial activities. Further, a court could order us to pay compensatory damages for such infringement, plus prejudgment interest, and could in addition treble the compensatory damages and award attorneys' fees. These damages could materially and adversely affect our business and financial condition.

Confidentiality agreements with employees and others may not adequately prevent disclosure of our trade secrets and other proprietary information, which could limit our ability to compete.

We rely on trade secrets to protect our proprietary technology and processes. Trade secrets are difficult to protect. We enter into confidentiality and intellectual property assignment agreements with our employees, consultants, and other advisors. These agreements generally require that the other party keep confidential and not disclose to third parties confidential information developed by the party or made known to the party by us during the course of the party's relationship with us. However, these agreements may not be honored and enforcing a claim that a party illegally obtained and is using our trade secrets is difficult, expensive and time-consuming, and the outcome is unpredictable. The failure to obtain and maintain trade secret protection could adversely affect our competitive position.

Our efforts to develop new technologies may not result in commercial success, which could cause a decline in our revenue and could harm our business.

Our research and development efforts with respect to our technologies may not result in customer or market acceptance. Some or all of those technologies may not successfully make the transition from the research and development lab to cost-effective production as a result of technology problems, competitive cost issues, yield problems, and other factors. Even when we successfully complete a research and development effort with respect to a particular technology, our customers may decide not to introduce or may terminate products utilizing the technology for a variety of reasons, including the following:

- difficulties with other suppliers of components for the products;
- superior technologies developed by our competitors and unfavorable comparisons of our solutions with these technologies;
- price considerations; and
- lack of anticipated or actual market demand for the products.

The nature of our business will require us to make continuing investments for new technologies. Significant expenses relating to one or more new technologies that ultimately prove to be unsuccessful for any reason could have a material adverse effect on us. In addition, any investments or acquisitions made to enhance our technologies may prove to be unsuccessful. If our efforts are unsuccessful, our business could be harmed.

We may not be able to enhance our product solutions and develop new product solutions in a timely manner.

Our future operating results will depend to a significant extent on our ability to provide new portable power source products that compare favorably with alternative solutions on the basis of time to introduction, cost, performance, and end-user preferences. Our success in attracting customers and developing business will depends on various factors, including the following:

- innovative development of new portable power source products for customer products;
- utilization of advances in technology;
- maintenance of quality standards;

- efficient and cost-effective solutions; and
- timely completion of the design and introduction of new portable power source products.

Our inability to commercialize our proposed portable power source solutions and develop new product solutions on a timely basis could harm our operating results and impede our growth.

If we do not keep pace with technological innovations, our products may not be competitive and our revenue and operating results may suffer.

Technological advances, the introduction of new products, and new design techniques could adversely affect our business prospects unless we are able to adapt to the changing conditions. Technological advances could render our proposed portable power source products obsolete, and we may not be able to respond effectively to the technological requirements of evolving markets. As a result, we will be required to expend substantial funds for and commit significant resources to

- continue research and development activities on portable power source products;
- hire additional engineering and other technical personnel; and
- purchase advanced design tools and test equipment.

Our business could be harmed if we are unable to develop and utilize new technologies that address the needs of our customers, or our competitors or customers do so more effectively than we do.

New technologically solutions that achieve significant market share could harm our business.

New portable power source solutions could be developed. Existing electronic devices also could be modified to allow for a different power source solution. Our business could be harmed if our products become noncompetitive as a result of a technological breakthrough that allows a new power source solution to displace our solution and achieve significant market acceptance.

Our inability to respond to changing technologies will harm our business.

The electronics industry is subject to constant technological change. Our future success will depend on our ability to respond appropriately to changing technologies and changes in product function and quality. If we rely on products and technologies that are not attractive to consumers, we may not be successful in capturing or retaining any significant market share. In addition, any new technologies utilized in our portable power source products may not perform as expected or as desired, in which event our adoption of such products or technologies may harm our business.

International sales and manufacturing risks could adversely affect our operating results.

We anticipate that the manufacturing and assembly operations for our portable power source products will be conducted primarily in Asia by manufacturing subcontractors. We also believe that many of our OEM customers will be located and much of our sales and distribution operations will be conducted in Asia. These international operations will expose us to various economic, political, and other risks that could adversely affect our operations and operating results, including the following:

- difficulties and costs of staffing and managing a multi-national organization;
- unexpected changes in regulatory requirements;
- differing labor regulations;
- potentially adverse tax consequences;
- tariffs and duties and other trade barrier restrictions;
- possible employee turnover or labor unrest;
- greater difficulty in collecting accounts receivable;
- the burdens and costs of compliance with a variety of foreign laws;
- potentially reduced protection for intellectual property rights; and
- political or economic instability in certain parts of the world.

The risks associated with international operations could negatively affect our operating results.

Our business may suffer if international trade is hindered, disrupted, or economically disadvantaged.

Political and economic conditions abroad may adversely affect the foreign production and sale of our portable power source products. Protectionist trade legislation in either the United States or foreign countries, such as a change in the current tariff structures, export or import compliance laws, or other trade policies, could adversely affect our ability to sell our portable power source products in foreign markets and to obtain materials or equipment from foreign suppliers.

Changes in policies by the U.S. or foreign governments resulting in, among other things, higher taxation, currency conversion limitations, restrictions on the transfer of funds, or the expropriation of private enterprises also could have a material adverse effect on us. Any actions by countries in which we conduct business to reverse policies that encourage foreign investment or foreign trade also could adversely affect our operating results. In addition, U.S. trade policies, such as “most favored nation” status and trade preferences for certain Asian nations could affect the attractiveness of our products to our U.S. customers and adversely impact our operating results.

Our operating results could be adversely affected by fluctuations in the value of the U.S. dollar against foreign currencies.

We plan to transact our portable power source business predominantly in U.S. dollars and bill and collect our sales in U.S. dollars. A weakening of the dollar could cause our overseas vendors to require renegotiation of either the prices or currency we pay for their goods and services. In the future, customers may negotiate pricing and make payments in non-U.S. currencies.

If our overseas vendors or customers require us to transact business in non-U.S. currencies, fluctuations in foreign currency exchange rates could affect our cost of goods, operating expenses, and operating margins and could result in exchange losses. In addition, currency devaluation can result in a loss to us if we hold deposits of that currency. Hedging foreign currencies can be difficult, especially if the currency is not freely traded. We cannot predict the impact of future exchange rate fluctuations on our operating results.

We expect that a majority of our manufacturing subcontractors will be located in Asia, increasing the risk that a natural disaster, labor strike, war, or political unrest in those countries would disrupt our operations.

We expect that a majority of our manufacturing subcontractors will be located in Asia. Events out of our control, such as earthquakes, fires, floods, or other natural disasters, or political unrest, war, labor strikes, or work stoppages in Asia could disrupt their operations, which would impact our business. In addition, there is political tension between Taiwan and China that could lead to hostilities. If any of these events occur, we may not be able to obtain alternative manufacturing capacity. Failure to secure alternative manufacturing capacity could cause a delay in the shipment of our products, which would cause our revenue to fluctuate or decline.

Continuing uncertainty of the U.S. economy may have serious implications for the growth and stability of our business and may negatively affect our stock price.

The revenue growth and profitability of our business will depend significantly on the overall demand for electronic devices. Softening demand in these markets caused by ongoing economic uncertainty may result in decreased revenue or earnings levels or growth rates. The U.S. economy has been historically cyclical, and market conditions continue to be challenging, which has resulted in individuals and companies delaying or reducing expenditures. Further delays or reductions in spending could have a material adverse effect on demand for our products, and consequently on our business, financial condition, results of operations, prospects, and stock price.

The electronics industry is cyclical and may result in fluctuations in our operating results.

The electronics industry has experienced significant economic downturns at various times. These downturns are characterized by diminished product demand, accelerated erosion of average selling prices, and production overcapacity. In addition, the electronics industry is cyclical in nature. We will seek to reduce our exposure to industry downturns and cyclicality by providing design and production services for leading companies in rapidly expanding industry segments. We may, however, experience substantial period-to-period fluctuations in future operating results because of general industry conditions or events occurring in the general economy.

Our strategic alliances may not achieve their objectives, and their failure to do so could impede our growth.

Our prospectus depends to a significant extent on our strategic allowances with Samsung and Gillette. In addition, we plan to explore additional strategic alliances designed to enhance or complement our technology or to work in conjunction with our technology; to provide necessary know-how, components, or supplies; and to develop, introduce, and distribute products utilizing our technology. Any strategic alliances may not achieve their intended objectives, may be cancelled by either party, and parties to our strategic alliances may not perform as contemplated. The failure of these alliances may impede our ability to introduce new products and enter new markets.

Product liability claims against us could result in adverse publicity and potentially significant monetary damages.

As a seller of consumer products using a flammable material such as methanol, we will face an inherent risk of exposure to product liability claims in the event injuries from product usage by customers. It is possible that our products could result in injury, whether by product malfunctions, defects, improper installation, or other causes. If such injuries or claims of injuries were to occur, we could incur monetary damages and our business could be adversely affected by any resulting negative publicity. The successful assertion of product liability claims against us could result in potentially significant monetary damages and, if our insurance protection is inadequate to cover these claims, could require us to make significant payments from our own resources.

We expect to face intense competition that could result in failing to gain market share and suffering reduced revenue from our portable power source products.

We plan to serve intensely competitive markets that are characterized by price erosion, rapid technological change, and competition from major domestic and international companies. This intense competition could result in pricing pressures, lower sales, reduced margins, and lower market share. Most of our competitors have greater market recognition, larger customer bases, and substantially greater financial, technical, marketing, distribution, and other resources than we possess and that afford them competitive advantages. As a result, they may be able to devote greater resources to the promotion and sale of products, to negotiate lower prices for raw materials and components, to deliver competitive products at lower prices, and to introduce new product solutions and

respond to customer requirements more quickly than we can. Our competitive position could suffer if one or more of our customers determine not to utilize our portable power source products and instead decide to contract with our competitors or to use alternative technologies.

Our ability to compete successfully will depend on a number of factors, both within and outside our control. These factors include the following:

- our success in designing and introducing new portable power source products;
- our ability to predict the evolving needs of our customers and to assist them in incorporating our technologies into their new products;
- our ability to meet our customer's requirements for small size, low weight, peak power, long power duration, ease of use, reliability, durability, and small form factor;
- the quality of our customer services;
- the rate at which customers incorporate our products into their own products;
- product or technology introductions by our competitors; and
- foreign currency fluctuations, which may cause a foreign competitor's products to be priced significantly lower than our products.

We depend on key personnel who would be difficult to replace, and our business will likely be harmed if we lose their services or cannot hire additional qualified personnel.

Our success will depend substantially on the efforts and abilities of our senior management and key personnel. The competition for qualified management and key personnel, especially engineers, is intense. Although we maintain noncompetition and nondisclosure covenants with most of our key personnel, we do not have employment agreements with most of them. The loss of services of one or more of our key employees or the inability to hire, train, and retain key personnel, especially engineers and technical support personnel, and capable sales and customer-support employees outside the United States, could delay the development and sale of our products, disrupt our business, and interfere with our ability to execute our business plan.

Our operating results may experience significant fluctuations.

In addition to the variability resulting from the short-term nature of our customers' commitments, other factors will contribute to significant periodic and seasonal quarterly fluctuations in our results of operations. These factors include the following:

- the cyclicality of the markets we serve;
- the timing and size of orders;
- the volume of orders relative to our capacity;
- product introductions and market acceptance of new products or new generations of products;
- evolution in the life cycles of our customers' products;
- timing of expenses in anticipation of future orders;
- changes in product mix;
- availability of manufacturing and assembly services;
- changes in cost and availability of labor and components;
- timely delivery of product solutions to customers;
- pricing and availability of competitive products;
- introduction of new technologies into the markets we serve;
- pressures on reducing selling prices;
- our success in serving new markets; and
- changes in economic conditions.

Accordingly, you should not rely on period-to-period comparisons as an indicator of our future performance. Negative or unanticipated fluctuations in our operating results may result in a decline in the price of our stock.

Item 2: Properties

We lease office, manufacturing and research and development space in the following locations:

Location	Segment	Primary Use	Approximate Number of Square Feet	Lease Expiration
Albany, NY	Test and Measurement	Manufacturing, office and sales	20,700	2009
Albany, NY	Instrumentation New Energy	Corporate headquarters, office and research and development	23,500	2009

We believe our facilities are generally well maintained and adequate for our current needs and for expansion, if required. We further believe that a lease renewal on reasonable terms for these properties may be achieved.

Item 3: Legal Proceedings

At any point in time, we may be involved in various lawsuits or other legal proceedings. Such lawsuits could arise from the sale of products or services or from other matters relating to its regular business activities, compliance with various governmental regulations and requirements, or other transactions or circumstances. We do not believe there are any such proceedings presently pending which could have a material adverse effect on our financial condition.

Item 4: Submission of Matters to a Vote of Security Holders

There were no matters submitted to a vote of our security holders during the fourth quarter of fiscal 2007.

PART II

Item 5: Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Price Range of Common Stock

Our common stock is traded on The Nasdaq Global Market under the symbol "MKTY". The following table sets forth the high and low sale prices of our common stock as reported by Nasdaq for the periods indicated:

	High	Low
Fiscal Year Ended December 31, 2006		
First Quarter	$ 3.90	$ 2.70
Second Quarter	5.00	2.00
Third Quarter	2.49	1.27
Fourth Quarter	2.96	1.55
Fiscal Year Ended December 31, 2007		
First Quarter	$ 1.93	$ 1.32
Second Quarter	1.80	1.20
Third Quarter	1.41	0.90
Fourth Quarter	1.35	0.72

Item 6: Selected Financial Data

The following table sets forth our summary consolidated financial data for the fiscal years ended December 31, 2005, 2006, and 2007, which was derived from our audited consolidated financial statements included elsewhere in this Annual Report on Form 10-K. We derived our summary consolidated financial data for the years ended December 31, 2003 and 2004 set forth in the following table from our audited consolidated financial statement not included in this report. You should read the following summary consolidated financial data together with the information under "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements, including the related notes thereto.

(In thousands, except per share data)	Years Ended December 31,				
	2003	2004	2005	2006	2007
Statement of Operations Data					
Product revenue	$ 5,547	$ 7,530	$ 6,012	$ 7,667	$ 9,028
Funded research and development revenue	2,311	1,040	1,829	489	1,556
Gain (loss) on derivatives	(6)	614	(10,407)	182	2,967
Net gain (loss) on sale of securities available for sale	7,483	3,626	10,125	4,289	2,549
(Loss) income from continuing operations before income taxes, equity in holdings' losses and minority interest	(1,731)	(9,121)	(14,949)	(12,980)	(7,609)
Income tax (expense) benefit	669	3,564	(1,587)	(1,895)	(2,548)
Minority interests in losses of consolidated subsidiary	490	1,366	1,442	1,208	582
Loss from continuing operations	(572)	(4,191)	(15,094)	(13,667)	(9,575)
Income from discontinued operations, net of taxes	13	—	—	—	—
Net (loss) income	$ (559)	$ (4,191)	$ (15,094)	$ (13,667)	$ (9,575)

Basic and Diluted (Loss) Earnings Per Share					
Loss from continuing operations	$ (0.02)	$ (0.14)	$ (0.49)	$ (0.43)	$ (0.25)
Income from discontinued operations	—	—	—	—	—
(Loss) earnings per share	$ (0.02)	$ (0.14)	$ (0.49)	$ (0.43)	$ (0.25)
Balance Sheet Data (as of period end):					
Working capital	$ 42,426	$ 34,812	$ 24,465	$ 20,820	$ 11,347
Securities available for sale	44,031	17,678	18,947	10,075	4,492
Securities available for sale – restricted	—	16,497	—	—	—
Total assets	65,838	66,830	41,267	33,811	18,716
Total long-term obligations	24	1,149	—	3,664	904
Total stockholders' equity	48,266	55,584	32,916	22,871	13,803

Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion of our financial condition and results of operations should be read in conjunction with our Consolidated Financial Statements and the related notes included elsewhere in this Annual Report. This discussion contains forward-looking statements, which involve risk and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of certain factors, including those discussed in Item 1A: "Risk Factors" and elsewhere in this Annual Report.

Overview

We are developing and commercializing off-the-grid rechargeable power sources for portable electronics. We have developed a patented, proprietary direct methanol fuel cell technology platform called Mobion, which generates electrical power using up to 100% methanol as fuel. Our proprietary fuel cell power solution consists of two primary components integrated in an easily manufactured device: the direct methanol fuel cell power engine, which we refer to as our Mobion Chip, and methanol replacement cartridges. Our Mobion Chip weighs less than one ounce and is small enough to fit in the palm of one's hand. The methanol used by the technology is fully biodegradable. We are currently the only micro fuel cell developer to have demonstrated power density of over 50 mW/cm^2 with high energy efficiencies of 1.4 Wh/cc of methanol. For these reasons, we believe our technology offers a compelling alternative to current lithium-ion and similar rechargeable battery systems currently used by original equipment manufacturers and branded partners, or OEMs, in many handheld electronic devices, such as mobile phones (including smart phones) and mobile phone accessories, digital cameras, portable media players, personal digital assistants, or PDAs, and global positioning systems, or GPS devices. We believe our platform will facilitate the development of numerous product advantages, including small size, environmental friendliness, and simplicity of design, all critical for commercialization in the consumer market, and can be implemented as three different product options: a compact external charging device, a snap-on or attached power accessory, or a lithium-ion battery replacement embedded fuel cell power solution. We intend to commercialize the Mobion platform in 2009.

Our Mobion technology eliminates the need for active water recirculation pumps or the inclusion of water as a fuel dilutant. The water required for the electrochemical process is transferred internally within the Mobion Chip from the site of water generation on the air-side of the cell. This internal flow of water takes place without the need for any pumps, complicated re-circulation loops or other micro-plumbing tools. Our Mobion technology is protected by a patent portfolio that includes over 90 U.S. patent applications covering five key technologies and manufacturing areas. Our goal is to become a leading provider of portable power for handheld electronic devices.

We also design, manufacture, and sell high-performance test and measurement instruments and systems serving three markets: general dimensional gauging, semiconductor, and aviation. These products consist of: electronic, computerized gauging instruments for position, displacement and vibration applications for the design, manufacturing and test markets; semiconductor products for wafer characterization; and engine balancing and vibration analysis systems for military and commercial aircraft.

Our cash requirements depend on numerous factors, including completion of our portable power source products development activities, our ability to commercialize our portable power source products, market acceptance of our portable power source products, and other factors. We expect to pursue the expansion of our operations through internal growth and strategic partnerships.

Several key indicators of our liquidity are summarized in the following table:

(Dollars in thousands)	Years ended December 31,		
	2005	**2006**	**2007**
Cash and cash equivalents	$ 11,230	$ 14,545	$ 7,650
Securities available for sale	18,947	10,075	4,492
Working capital	24,465	20,820	11,347
Net loss	(15,094)	(13,667)	(9,575)
Net cash used in operating activities	(12,572)	(12,706)	(11,683)

Purchase of property, plant and equipment	(1,004)	(1,574)	(414)

From inception through December 31, 2007, we have incurred an accumulated deficit of $105.1 million and we expect to incur losses for the foreseeable future as we continue micro fuel cell product development and commercialization programs. We expect that losses will fluctuate from year to year and that such fluctuations may be substantial as a result of, among other factors, sales of securities available for sale as well as the operating results of our businesses.

Results of Operations

Results of Operations for the Year Ended December 31, 2007 Compared to December 31, 2006.

Product Revenue: Product revenue in our test and measurement instrumentation business for 2007 increased by $1.4 million, or 17.8%, to $9.0 million for the fiscal year ended December 31, 2007 from $7.7 million for the fiscal year ended December 31, 2006. This performance was primarily the result of a $602,000 increase in activity by the U.S. Air Force, driven by the New PBS-4100 systems contract. Also contributing were increased purchases by our Japanese distributor (particularly OEM capacitance), as well as increased volume in semiconductor product shipments. Total product revenue for general dimensional gauging products increased by $298,000, or 7.2%, to $4.5 million, while total product revenue for semiconductor products increased by $364,000, or 71.2%, to $875,000.

In our test and measurement instrumentation business during 2007, the U.S. Air Force accounted for $2.4 million, or 26.3%, of product revenue while during 2006, the U.S. Air Force accounted for $1.8 million, or 23.1%, of product revenue. Additionally, during 2007, Koyo Precision, our Japanese distributor, represented $2.5 million, or 27.7%, of product revenue while during 2006, Koyo Precision represented $1.8 million, or 22.9%, of product revenue.

Information regarding government contracts included in product revenue is as follows:

(Dollars in thousands)						
			Revenue Year Ended December 31,		Revenue	Total Contract Orders Received to Date
Contract[1]	**Expiration**		**2006**	**2007**	**Contract to Date Dec. 31, 2007**	**Dec. 31, 2007**
$2.3 million Air Force New PBS-4100 Systems	07/28/2010 [2]	$	—	$ 1,596	$ 1,596	$ 1,596
$8.8 million Air Force Retrofit and Maintenance of PBS-4100 Systems	05/19/2008 [3]	$	1,417	$ 738	$ 7,365	$ 7,365

(1) Contract values represent maximum potential values and may not be representative of actual results.
(2) Date represents expiration of contract, including all three potential option extensions.
(3) Expiration date was extended during December 2007 from December 20, 2007 to May 19, 2008.

*Funded Research and Development Revenue:*Funded research and development revenue in our new energy business during 2007 increased by $1.1 million, or 218.2%, to $1.6 million for the year ended December 31, 2007 from $489,000 for the year ended December 31, 2006. The increase in revenue was primarily the result of billings under the DOE contract, which had its funding reinstated during May 2007 after it had been suspended during 2006. This DOE funding resumption contributed an additional $613,000 to revenue during 2007. Revenue during 2007 also included $418,000 from the SAFT contract, for which revenue recognition had been deferred until the delivery under the contract was accepted during the first quarter of 2007. Revenue recognized under the Samsung alliance agreement increased by $21,000 during 2007 over 2006.

(Dollars in thousands)		Revenue Year Ended December 31, 2006			Revenue Year Ended December 31, 2007			Revenue Contract to Date
Contract	**Expiration [1]**	**Revenue**	**Percent**		**Revenue**	**Percent**		**Dec. 31, 2007**
$3.0 million DOE[2]	09/30/08	$ 62	12.7	%	$ 675	43.4	% $	1,846
$1.0 million Samsung[3]	07/31/07	427	87.3		448	28.8		875
$418,000 SAFT[4]	12/31/06	—	—		418	26.9		418

$15,000 NCMS[5]	06/30/07		—	—			15	0.9			15
Total		$	489	100.0	%	$	1,556	100.0	%	$	3,154

(1) Dates represent expiration of contract, not date of final billing.

(2) The DOE contract is a cost share contract. DOE funding for this contract was suspended during January 2006 and reinstated during May 2007. During 2007, we received notifications from the DOE of funding releases totaling $1.0 million and also received an extension of the termination date for the contract from July 31, 2007 to September 30, 2008. During February 2008, we received notification from the DOE of a funding release of $500,000

(3) The Samsung contract is a research and prototype contract. This contract included one up-front payment of $750,000 and two milestone payments of $125,000 each for the delivery of prototypes. The contract was amended on October 22, 2007 as we agreed to issue a credit in the amount of the last invoice in recognition of our continuing collaboration with Samsung. Therefore, revenue under this contract totaled $875,000.

(4) The SAFT contract is a fixed price contract. This is a subcontract with SAFT under the U.S. Army CECOM contract. The purchase order received in connection with this subcontract was revised on November 14, 2006 eliminating one milestone. As a result, the contract value was reduced from $470,000 to $418,000 and the expiration date was extended from September 30, 2006 to December 31, 2006.

(5) This contract was a cost plus catalyst research contract with the National Center for Manufacturing Sciences, or NCMS.

*Cost of Product Revenue:*Cost of product revenue in our test and measurement instrumentation business increased by $530,000, or 18.3%, to $3.4 million during the year ended December 31, 2007 from $2.9 million during the year ended December 31, 2006. As a percentage of product revenue, the annual cost of product revenue remained relatively consistent with 2006, and this increase was consistent with the higher revenue during 2007.

Gross profit as a percentage of product revenue decreased by 0.2% to 62.0% for the year ended December 31, 2007, remaining relatively consistent with 2006.

Funded Research and Product Development Expenses: Funded research and development expenses in our new energy business increased $739,000, or 64.1%, to $1.9 million for the year ended December 31, 2007 from $1.2 million for the year ended December 31, 2006. While the active contracts were relatively consistent between periods, costs for the DOE contract increased $1.3 million, reflecting its reinstatement during May 2007, while costs for the Samsung contract increased by $22,000. These increases were partially offset by a decrease in costs for the SAFT contract of $576,000, as that contract was completed during the first quarter of 2007.

Unfunded Research and Product Development Expenses: Unfunded research and product development expenses decreased $1.9 million, or 16.1%, to $9.9 million for the year ended December 31, 2007 from $11.8 million for the year ended December 31, 2006. This decrease reflects a $2.2 million decrease in development costs related to (a) the DOE contract that resumed during May 2007, which related increase is reflected in funded research and product development expenses, and (b) cost savings from the decision to suspend work on our high power program during March 2007. This decrease was partially offset by a $317,000 increase in product development expenses in our test and measurement instrumentation business reflecting increased staffing and external product development costs focused on the development of the division's new stand-alone measurement and data acquisition solution, stand-alone laser head, as well as other precision measurement solutions.

*Selling, General and Administrative Expenses:*Selling, general and administrative expenses decreased by $1.3 million, or 13.2%, to $8.7 million for the year ended December 31, 2007 from $10.1 million for the year ended December 31, 2006. This decrease was primarily the result of (a) a $387,000 decrease in non-cash stock-based compensation charges reflecting the difference between sign on and promotion grants during 2006 compared with primarily annual compensation grants during 2007 and the reversal of expense during 2007 related to certain cancelled executive stock-based performance grants where performance goals were not met, (b) a $528,000 decrease in outside services, including audit, legal, and consulting fees, (c) a $345,000 decrease in recruiting and relocation costs, (d) a $178,000 increase in severance costs attributable to employees terminated as a result of our March 2007 restructuring, (e) a $632,000 decrease in wages and benefits, which was also attributable to our March 2007 restructuring, (f) a $227,000 decrease in other operating expenses, primarily insurance and laboratory operating fees, (g) a $647,000 increase related to a decrease in allocations of expense from SG&A to funded and unfunded research and development costs for overhead and other costs allocable to research and development programs, and (h) a $40,000 decrease in other expenses, net.

*Operating Loss:*Operating loss for the year ended December 31, 2007 compared with the operating loss for the year ended December 31, 2006 decreased by $4.4 million to $13.3 million, a 24.7% decrease, as a result of the factors noted above.

*Gain on Sale of Securities Available for Sale:*The gain on sale of securities available for sale for the year ended December 31, 2007 was $2.5 million compared with a gain of $4.3 million for the year ended December 31, 2006. During 2007, we sold 1,452,770 shares of Plug Power common stock at a weighted average price of $3.53 per share, with gross proceeds to us of $5.1 million.

Gain (loss) on Derivatives: We recorded a gain on derivative accounting of $3.0 million for the year ended December 31, 2007 and a gain of $182,000 on derivative accounting for the year ended December 31, 2006. Both the 2007 and 2006 gains are the result of derivative treatment of the freestanding warrants issued to investors in conjunction with our December 2006 capital raise.

Income Tax (Expense) Benefit: Our income tax rate for the year ended December 31, 2007 was 33%, while the income tax rate for the year ended December 31, 2006 was 15%. These tax rates were primarily the result of losses generated by operations, changes in the valuation allowance, state true-ups upon tax return filings, permanent deductible differences for the derivative valuation, and disproportionate effects of reclassification of gains on Plug Power security sales included in operating loss.

The valuation allowance against our deferred tax assets at December 31, 2007 was $22.3 million and at December 31, 2006 was $18.9 million. We determined that it was more likely than not that the ultimate recognition of certain deferred tax assets would not be realized.

Results of Operations for the Year Ended December 31, 2006 Compared to December 31, 2005.

*Product Revenue:*Product revenue in our test and measurement instrumentation business increased by $1.7 million, or 27.5%, to $7.7 million for the year ended December 31, 2006 from $6.0 million for the year ended December 31, 2005. This performance was primarily the result of (a) an increase of $1.5 million, or 55.0%, in dimensional gauging sales, particularly direct capacitance sales through our Japanese distributor, (b) increases in semiconductor sales of $200,000, as 18 manual, one automatic, and one semi-automated metrology

tool systems were sold during the year, compared to seven manual, one semi-automated, and four OEM systems during 2005, (c) commercial aviation equipment sales increases of $539,000, and (d) lower revenue from the U.S. Air Force of $611,000 as a result of fewer purchases of new equipment and reduced activity under the existing repair contract.

In our test and measurement instrumentation business, the U.S. Air Force accounted for $1.8 million, or 23.1%, of product revenue during the year ended December 31, 2006 compared with $2.4 million, or 39.7%, of product revenue during the year ended December 31, 2005. During 2006, Koyo Precision, our Japanese distributor, represented $1.8 million, or 22.9%, of product revenue.

Information regarding government contracts included in product revenue is as follows:

(Dollars in thousands)					
		Revenue Year Ended December 31,		Revenue Contract to Date	Total Contract Orders Received to Date
Contract	**Expiration**	**2005**	**2006**	**Dec. 31, 2006**	**Dec. 31, 2006**
$8.8 million Air Force Retrofit and Maintenance of PBS-4100 Systems	05/19/2008 (1)	$ 1,552	$ 1,417	$ 6,627	$ 6,637

(1) Expiration date was extended during December 2007 from December 20, 2007 to May 19, 2008.

Funded Research and Development Revenue: Funded research and development revenue in our new energy business decreased $1.3 million, or 73.3%, to $489,000 for the year ended December 31, 2006 from $1.8 million for the year ended December 31, 2005. The decrease in revenue was primarily the result of the suspension of previously approved DOE funding for 2006 and the completion of other programs that were active in 2005, including programs with the New York State Energy Research and Development Authority, the Army Research Labs, the Marine Corps, the Cabot Superior Micro Powders subcontract with the National Institute of Standards and Technology, and Harris. This decrease was partially offset by $427,000 of revenue recognized from the Samsung alliance agreement during 2006.

Information regarding government and private company development contracts included in funded research and development revenue is as follows:

(Dollars in thousands)		Revenue Year Ended December 31, 2005			Revenue Year Ended December 31, 2006			Revenue Contract to Date
Contract	**Expiration (1)**	**Revenue**	**Percent**		**Revenue**	**Percent**		**Dec. 31, 2006**
$3.0 million DOE(2)	07/31/07	$ 930	50.8	%	$ 62	12.7	%	$ 1,171
$1.3 million NYSERDA(3)	06/30/06	329	18.0		—	—		1,135
$1.0 million Samsung(4)	07/31/07	—	—		427	87.3		427
$418,000 SAFT(5)	12/31/06	—	—		—	—		—
$250,000 ARL	09/30/05	250	13.7		—	—		250
$210,000 NIST(6)	06/30/05	100	5.5		—	—		210
$150,000 Harris(7)	06/25/04	150	8.2		—	—		150
$70,000 Marine Corps	03/31/05	70	3.8		—	—		70
Total		$ 1,829	100.0	%	$ 489	100.0	%	$ 3,413

(1) Dates represent expiration of contract, not date of final billing.
(2) DOE funding for this cost shared contract was suspended during 2006.
(3) The total contract value for this cost shared contract is $1.3 million consisting of four Phases: Phase I for $500,000 was from March 12, 2002 through September 30, 2003; Phase II for $200,000 was from October 28, 2003 through October 31, 2004; Phase III for $348,000 was from August 23, 2004 through August 31, 2005; and Phase IV for $202,000 which commenced on December 14, 2004 and expired on June 30, 2006. Phases I, II, and III have been completed, while Phase IV expired before it was completed.
(4) Represents a research and prototype contract that includes one up-front payment of $750,000 and two milestone payments totaling $250,000 for the delivery of acceptable prototypes.
(5) Represents a fixed price subcontract with SAFT under the U.S. Army CECOM contract. The purchase order received in connection with this subcontract was revised on November 14, 2006 eliminating one milestone. As a result, the contract value was reduced from $470,000 to $418,000 and the expiration date was extended from September 30 to December 31, 2006.
(6) Represents a fixed price subcontract with CSMP under NIST and includes the original contract for $200,000 and a contract amendment for $10,000.
(7) Represents a fixed price contract that includes the original contract for $200,000, an amendment for $50,000, and a 2005 amendment reducing the contract by $100,000.

Cost of Product Revenue: Cost of product revenue in our test and measurement instrumentation business increased by $519,000, or 21.8%, to $2.9 million for the year ended December 31, 2006 from $2.4 million for the year ended December 31, 2005. This increase is consistent with higher product revenue during 2006 compared with 2005.

Gross profit as a percentage of product revenue increased by 1.8% to 62.2% for the year ended December 31, 2006. The improvement in gross margin during 2006 was primarily the result of a five point rise in average margins on capacitance product sales resulting from higher sales volume and improved pricing strategies.

*Funded Research and Product Development Expenses:*New energy funded research and product development expenses decreased by $2.4 million, or 67.6%, to $1.2 million for the year ended December 31, 2006 from $3.6 million for the year ended December 31, 2005. The decreased costs were attributable to active contracts during 2005, which were no longer active during 2006. During 2006, we had active contracts with Samsung, DOE and SAFT, while during 2005 we had active contracts with DOE, NYSERDA, SAFT, NIST, ARL, and the Marine Corps.

*Unfunded Research and Product Development Expenses:*Unfunded research and product development expenses increased by $5.7 million, or 92.4%, to $11.8 million for the year ended December 31, 2006 from $6.1 million for the year ended December 31, 2005. This increase reflected a $5.4 million increase in our new energy business related to increased internal costs for the development of micro fuel cell systems and costs in connection with developing prototypes and product intent prototypes, including a $512,000 non-cash charge for share-based compensation resulting from the adoption of SFAS No. 123R, which requires that the fair value of share-based compensation be expensed. This increase also included a $208,000 increase in product development expenses in our test and measurement instrumentation business for projects related to the development of a glass thickness gauge, improvements to the portable engine vibration and balancing system, and updated industrial balancing software.

*Selling, General and Administrative Expenses:*Selling, general and administrative expenses decreased by $815,000, or 7.5%, to $10.1 million for the year ended December 31, 2006 from $10.9 million for the year ended December 31, 2005. This decrease was primarily the result of (a) an $892,000 increase in non-cash equity compensation charges resulting from the adoption of SFAS No. 123R, which required that the fair value of share-based compensation be expensed, (b) a $1.1 million decrease in salaries and engineering management costs, partially a result of an increase in costs directly charged to research and product development and the elimination of the government systems group during the second quarter of 2005, (c) a $640,000 decrease related to increases in liquidations to unfunded research and development costs, which was a result of having charged more time to internal development projects for low power and high power technology platform developments, the development of prototypes for Samsung, and the development of the Mobion 30M product, (d) a $259,000 decrease in the Los Alamos National Laboratory license fees as a result of an amendment of the license agreement, which resulted in reduced minimum annual license payments, (e) a $152,000 decrease in depreciation costs primarily related to the renewal of the lease on our main office, (f) a $104,000 increase in commission costs at MTI Instruments, (g) a $131,000 increase in incentive compensation primarily related to new executive employment agreements, (h) a $261,000 increase in marketing costs as MTI Micro raised its emphasis on marketing and business development and MTI Instruments underwent a major rebranding campaign during 2006, and (i) a $39,000 decrease in other expenses, net.

*Operating Loss:*Operating loss increased by $2.6 million, or 17.5%, to $17.7 million for the year ended December 31, 2006 compared with the year ended December 31, 2005 as a result of the factors noted above.

*Gain on Sale of Securities Available for Sale:*The gain on sale of securities available for sale for the year ended December 31, 2006 was $4.3 million compared with $10.1 million for the year ended December 31, 2005. During the year ended December 31, 2006, we sold 1,103,500 shares of Plug Power common stock at a weighted average price of $5.66 per share, with gross proceeds to us of $6.2 million.

On June 24, 2005, Fletcher International Ltd., or Fletcher, notified us of its election to exercise in full its right to purchase from us an amount of common stock of Plug Power. As a result of this election, Fletcher purchased 1,799,791 shares of Plug Power common stock from us at a price of $0.7226 per share, with proceeds to us of $1.3 million. In connection with this exercise, we recognized a loss on this embedded derivative immediately prior to exercise of $7.2 million and a gain on the sale of Plug Power common shares of $9.6 million.

*Gain (loss) on Derivatives:*We recorded a gain on derivative accounting of $182,000 for the year ended December 31, 2006 and a loss of $10.4 million on derivative accounting for the year ended December 31, 2005. The 2006 gain was the result of derivative treatment of the freestanding warrants issued in conjunction with our December 2006 capital raise, while the 2005 result related to an embedded derivative for the purchase of Plug Power common stock, which was issued as part of the 2004 private placement transaction. The warrant derivative was valued using the Black-Scholes Pricing model, as was the embedded derivative prior to its exercise on June 24, 2005. Upon exercise, the embedded derivative was valued at its intrinsic value.

*Income Tax (Expense) Benefit:*Our income tax expense rate for the year ended December 31, 2006 was 15%, while the income tax expense rate for the year ended December 31, 2005 was 11%. These tax rates were primarily the result of losses generated by operations, changes in the valuation allowance, and disproportionate effects of reclassification of gains on Plug Power security sales included in operating loss.

The valuation allowance against our deferred tax assets at December 31, 2006 was $18.8 million and at December 31, 2005 was $10.9 million. We determined that it was more likely than not that the ultimate recognition of certain deferred tax assets would not be realized.

Liquidity and Capital Resources

We have incurred significant losses as we continue to fund the development and commercialization of our portable power source business. We expect that losses will fluctuate from year to year and that such fluctuations may be substantial as a result of, among other factors, sales of securities available for sale, our operating results, the availability of equity financing, including warrants issued in connection with the December 2006 capital raise, and the ability to attract government funding resources to offset research and development costs. As of December 31, 2007, we had an accumulated deficit of $105.1 million. During the year ended December 31, 2007, our results of operations resulted in a net loss of $9.6 million and cash used in operating activities totaling $11.7 million. This cash use in 2007 was funded primarily by cash and cash equivalents on hand as of December 31, 2006 of $14.5 million and proceeds from the sales of securities available for sale of $5.1 million. We expect to continue to incur losses as we seek to develop and commercialize our portable power source products and we expect to continue funding our operations from current cash and cash equivalents, the sales of securities available for sale, proceeds, if any, from equity financings, including warrants issued in connection with the December 2006 capital raise, and government funding. We expect to spend approximately $11.7 million on research and development of Mobion technology and $1.8 million in research and development on MTI Instruments' products during 2008.

Additional financing during 2008 may not be available to us on acceptable terms, if at all. Cash used to support operations is expected to total approximately $11.8 million and cash used for capital expenditures is expected to total approximately $1.1 million. Capital expenditures will consist of purchases of manufacturing and laboratory equipment, software, computer equipment, and furniture. Proceeds from our sale of securities available for sale are subject to fluctuations in the market value of Plug Power. We may also seek to supplement our resources through additional equity offerings, sales of assets (including MTI Instruments), and additional government revenue could also provide more resources.

As of December 31, 2007, we owned 1,137,166 shares of Plug Power common stock. Potential future sales of Plug Power securities will generate taxable income or loss, which is different from book income or loss, as a result of the tax bases in these assets being significantly different from their book bases. Book and tax bases as of December 31, 2007 are as follows:

		Average Book	**Average Tax**
Security	**Shares Held**	**Cost Basis**	**Cost Basis**
Plug Power	1,137,166	$ 1.78	$ 0.96

Plug Power stock is currently traded on The Nasdaq Global Market and is therefore subject to stock market conditions. When acquired, these securities were unregistered. Our Plug Power securities are considered "restricted securities" as defined in the securities laws and may not be sold in the future without registration under the Securities Act, unless in compliance with an available exemption from registration. While our Plug Power shares remain "restricted securities," these shares are now freely transferable in accordance with Rule 144(d) under the Securities Act, subject to the limitations associated with such rule.

Working capital was $11.3 million at December 31, 2007, a $9.5 million decrease from $20.8 million at December 31, 2006. This decrease was primarily the result of the use of cash in operations offset by proceeds from sale of securities available for sale.

At December 31, 2007, the Company's order backlog was $445,000, compared to $220,000 at December 31, 2006.

Our inventory turnover ratios and average accounts receivable days sales outstanding for the years ended December 31, 2006 and 2007 and their changes are as follows:

	Years Ended December 31,		
	2006	**2007**	**Change**
Inventory turnover	2.6	2.3	(0.3)
Average accounts receivable days sales outstanding	45	58	13

The decline in inventory turnover stemmed from a 13% higher year-end inventory balance needed to support new product initiatives as these products gain acceptance in their targeted markets, as well as maintenance of higher stock levels to support continued growth at strategic end-use customers.

The increase in average accounts receivable days sales outstanding in 2007 compared with 2006 was primarily attributable to our decision to grant our largest commercial customer 90-day payment terms.

Cash flow used by operating activities was $11.7 million during 2007 compared with $12.7 million during 2006. This cash use decrease of $1.0 million reflected a net decrease of $3.5 million in cash expenditures to fund operations coupled with net balance sheet changes, which increased cash expenditures by $2.5 million, reflecting the timing of cash receipts and payments, particularly recognition of

deferred revenue and payment of certain accrued liabilities.

Capital expenditures were $414,000 during 2007, a decrease of $1.2 million from the prior year. Capital expenditures during 2007 included computer equipment, software, and manufacturing and laboratory equipment. Outstanding commitments for capital expenditures as of December 31, 2007 totaled $35,000 and included expenditures for laboratory and computer equipment. We expect to finance these expenditures and other capital expenditures during 2008 with current cash and cash equivalents, the sale of securities available for sale, equity financing, and other sources, as appropriate and to the extent available.

During 2007, we sold 1,452,770 shares of Plug Power common stock with proceeds totaling $5.1 million and gains totaling $2.5 million. These proceeds reflect our previously announced strategy to raise additional capital through the sale of Plug Power stock to fund our micro fuel cell operations. We expect the net gains to be offset by our operating losses for purposes of computing taxable income. We estimate that as of December 31, 2007, our remaining net operating loss carry forwards were approximately $54 million.

Off-Balance Sheet Arrangements

Pursuant to a financing transaction between us and certain investors on December 15, 2006, we issued warrants to purchase up to an aggregate 3,027,778 shares of our common stock exercisable at any time until December 19, 2011 at an exercise price per share of $2.27. The shares issuable upon exercise of these warrants would be issued under a shelf registration statement covering the resale of such shares. The terms of the warrant agreement permits a cash settlement with the holders of the warrants if we are acquired by, or merge with, a private company. Because of the possibility of such a settlement, we have classified this agreement as an asset/liability derivative in accordance with SFAS No. 133 and EITF 00-19.

Critical Accounting Policies and Significant Judgments and Estimates

The following discussion and analysis of its financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. Note 2 to the consolidated financial statements includes a summary of our most significant accounting policies. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosure of assets and liabilities. On an on-going basis, we evaluate our estimates and judgments, including those related to revenue recognition, inventories, securities available for sale, income taxes, share-based compensation and derivatives. We base our estimates on historical experience and on various other factors that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. We review critical accounting estimates with the Audit Committee of our Board of Directors.

The significant accounting policies that we believe are most critical to aid in fully understanding and evaluating our reported financial results include the following:

Revenue Recognition: We recognize revenue from development contracts based upon the relationship of actual costs to estimated costs to complete the contract. These types of contracts typically provide development services to achieve a specific scientific result relating to direct methanol fuel cell technology. Some of these contracts require us to contribute to the development effort. The customers for these contracts are commercial customers and various state and federal government agencies. While government agencies are providing revenue, we do not expect the government to be a significant end user of the resulting products. Therefore, we do not reduce funded research and product development expense by the funding received. When it appears probable that estimated costs will exceed available funding on fixed price contracts and we are not successful in securing additional funding, we record the estimated additional expense before it is incurred.

We apply the guidance in SAB No. 104, *Revenue Recognition*, in the evaluation of commercially funded fuel cell research and prototype agreements in order to determine when to properly recognize income. Payments received in connection with commercial research and prototype agreements are deferred and recognized on a straight-line basis over the term of the agreement for service-related payments. For milestone and prototype delivery payments, if and when achieved, revenue is deferred and recognized on a straight-line basis over the remaining term of the agreement. When revenue qualifies for recognition it will be recorded as funded research and development revenue. The costs associated with research and prototype-producing activities are expensed as incurred. Expenses in an amount equal to revenue recognized are reclassified from unfunded research and product development to funded research and product development.

We also recognize revenue from product sales in accordance with SAB No. 104. Product revenue is recognized when there is persuasive evidence of an arrangement, delivery of the product to the customer or distributor has occurred, at which time title generally is passed to the customer or distributor, and we have determined that collection of a fixed fee is probable, all of which occur upon shipment of the product. If the product requires installation to be performed by us, all revenue related to the product is deferred and recognized upon the completion of the installation.

Inventory: Inventory is valued at the lower of cost or the current estimated market value of the inventory. We periodically review inventory quantities on hand and record a provision for excess or obsolete inventory based primarily on our estimated forecast of product demand, as well as based on historical usage. Demand and usage for products and materials can fluctuate significantly. A significant decrease in demand for our products could result in a short-term increase in the cost of inventory purchases and an increase of excess inventory quantities on hand. Therefore, although we make every effort to ensure the accuracy of our forecasts of future product demand, any significant unanticipated changes in demand could have a significant impact on the value of our inventory and our reported operating results.

Share-Based Payments: We grant options to purchase our common stock and award restricted stock to our employees and directors under our equity incentive plans. The benefits provided under these plans are share-based payments subject to the provisions of SFAS No. 123R, *Share-Based Payment,* and SEC Staff Accounting Bulletin 107, *Share-Based Payments*. Effective January 1, 2006, we use the fair value method to apply the provisions of FAS 123R with the modified prospective application, which provides for certain changes to the method for valuing share-based compensation. The valuation provisions of FAS 123R apply to new awards and to awards that are outstanding on the effective date and subsequently modified. Under the modified prospective application, prior periods are not revised for comparative purposes. Share-based compensation expense recognized under FAS 123R for the year ended December 31, 2007 was $1.6 million. At December 31, 2007, total unrecognized estimated compensation expense related to non-vested awards granted prior to that date was $1.6 million, which is expected to be recognized over a weighted average period of 1.31 years.

Upon adoption of FAS 123R, we began estimating the value of share-based awards on the date of grant using a Black-Scholes option-pricing model. Prior to the adoption of FAS 123R, the value of each share-based award was estimated on the date of grant using the Black-Scholes model for the pro forma information required to be disclosed under FAS 123. The determination of the fair value of share-based payment awards on the date of grant using an option-pricing model is affected by our stock price as well as assumptions regarding a number of complex and subjective variables. These variables include our expected stock price volatility over the term of the awards, actual and projected employee stock option exercise behaviors, risk-free interest rate and expected dividends.

If factors change and we employ different assumptions in the application of FAS 123R during future periods, the compensation expense that we record under FAS 123R may differ significantly from what we have recorded in the current period. Therefore, we believe it is important for investors to be aware of the high degree of subjectivity involved when using option-pricing models to estimate share-based compensation under FAS 123R. Option-pricing models were developed for use in estimating the value of traded options that have no vesting or hedging restrictions, are fully transferable and do not cause dilution. Because our share-based payments have characteristics significantly different from those of freely traded options, and because changes in the subjective input assumptions can materially affect our estimates of fair values, in our opinion, existing valuation models, including the Black-Scholes Option Pricing model, may not provide reliable measures of the fair values of our share-based compensation. Consequently, there is a risk that our estimates of the fair values of our share-based compensation awards on the grant dates may bear little resemblance to the intrinsic values realized upon the exercise, expiration, cancellation or forfeiture of those share-based payments in the future. Certain share-based payments, such as employee stock options, may expire worthless or otherwise result in zero intrinsic value as compared to the fair values originally estimated on the grant date and expensed in our financial statements. Alternatively, value may be realized from these instruments that are significantly in excess of the fair values originally estimated on the grant date and expensed in our financial statements. There is currently neither a market-based mechanism nor other practical application to verify the reliability and accuracy of the estimates stemming from these valuation models, nor a way to compare and adjust the estimates to actual values. Although the fair value of employee share-based awards is determined in accordance with FAS 123R and SAB 107 using a qualified option-pricing model, that value may not be indicative of the fair value observed in a willing buyer/willing seller market transaction. Estimates of share-based compensation expenses are significant to our financial statements, but these expenses are based on the aforementioned option valuation model and will never result in the payment of cash by us.

The guidance in FAS 123R and SAB 107 is still relatively new, and best practices are not well established. The application of these principles may be subject to further interpretation and refinement over time. There are significant differences among valuation models, and there is a possibility that we will adopt different valuation models in the future. This may result in a lack of consistency in future periods and materially affect the fair value estimate of share-based payments. It may also result in a lack of comparability with other companies that use different models, methods and assumptions.

Theoretical valuation models and market-based methods are evolving and may result in lower or higher fair value estimates for share-based compensation. The timing, readiness, adoption, general acceptance, reliability and testing of these methods is uncertain. Sophisticated mathematical models may require voluminous historical information, modeling expertise, financial analyses, correlation analyses, integrated software and databases, consulting fees, customization and testing for adequacy of internal controls.

For purposes of estimating the fair value of stock options granted during the year ended December 31, 2007 using the Black-Scholes model, we used the historical volatility of our stock for the expected volatility assumption input to the Black-Scholes model, consistent with the guidance in FAS 123R and SAB 107. The risk-free interest rate is based on the risk-free zero-coupon rate for a period consistent with the expected option term at the time of grant. We do not currently pay nor do we anticipate paying dividends,

but we are required to assume a dividend yield as an input to the Black-Scholes model. As such, we use a zero dividend rate. The expected option term is estimated using both historical term measures and projected termination estimates.

Income Taxes: As part of the process of preparing our consolidated financial statements, we are required to estimate our income taxes in each of the jurisdictions in which we operate. This process involves the estimation of our actual current tax exposure together with assessing temporary differences resulting from differing treatment of items for tax and accounting purposes. Included in this assessment is the determination of net operating loss carry forwards. These differences result in a net deferred tax asset. The Company must assess the likelihood that our deferred tax assets will be recovered from future taxable income and, to the extent that we believe that recovery is not likely, we must establish a valuation allowance.

Significant management judgment is required in determining our provision for income taxes, our deferred tax assets and liabilities and any valuation allowance recorded against our net deferred tax assets. We have recorded a valuation allowance due to uncertainties related to our ability to realize certain net deferred tax assets, primarily consisting of net operating losses being carried forward. In the event that actual results differ from these estimates or we adjust these estimates in future periods, we may need to adjust the recorded valuation allowance, which could materially impact our financial position and results of operations. We have recorded a full valuation allowance against our net deferred tax assets of $22.3 million as of December 31, 2007. This valuation allowance is due to uncertainties related to our ability to realize certain of these assets. The valuation allowance is based on estimates of the recoverability of certain net operating losses. In the event actual results differ from these estimates or we adjust these estimates in future periods we may need to adjust our valuation allowance which could materially impact our financial position and results of operations.

In June 2006, the FASB issued Interpretation No. 48, *Accounting for Uncertainty in Income Taxes, an Interpretation of FASB Statement No. 109*, which became effective for us beginning in fiscal 2007. FIN 48 addresses the determination of how tax benefits claimed or expected to be claimed on a tax return should be recorded in the financial statements. Under FIN 48, we must recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate resolution. The impact of our reassessment of our tax positions in accordance with FIN 48 did not have a material impact on our results of operations, financial condition or liquidity.

Derivative Instruments: We account for derivative instruments and embedded derivative instruments in accordance with SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities,* as amended. The amended standard requires an entity to recognize all derivatives as either assets or liabilities in the statement of financial position and measure these instruments at fair value. Fair value is estimated using the Black-Scholes Pricing model. We also follow EITF Issue No. 00-19, *Accounting for Derivative Financial Instruments Indexed to and Potentially Settled in, a Company's Own Stock*, which requires freestanding contracts that are settled in a company's own stock, including common stock warrants, to be designated as an equity instrument, asset or a liability. Under the provisions of EITF Issue No. 00-19, a contract designated as an asset or a liability must be carried at fair value, with any changes in fair value recorded in the results of operations. A contract designated as an equity instrument can be included in equity with no fair value adjustments required.

Our asset/liability derivatives are valued on a quarterly basis using the Black-Scholes Pricing model. Significant assumptions used in the valuation included exercise dates, closing prices for the Company's common stock, volatility of our common stock, and a proxy risk-free interest rate. Gains (losses) on derivatives are included in "Gain (loss) on derivatives" in the Consolidated Statement of Operations.

New Accounting Pronouncements

Effect of Recent Accounting Pronouncements:

In December 2007, the FASB issued SFAS No. 141R, *Business Combinations—a replacement of FASB Statement No. 141*, which significantly changes the principles and requirements for how the acquirer of a business recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed, and any noncontrolling interest in the acquiree. The statement also provides guidance for recognizing and measuring the goodwill acquired in the business combination and determines what information to disclose to enable users of the financial statements to evaluate the nature and financial effects of the business combination. SFAS No. 141R is effective prospectively, except for certain retrospective adjustments to deferred tax balances, for fiscal years beginning after December 15, 2008. This statement will be effective for the Company for fiscal year 2009. We have not yet determined the impact, if any, of this statement on our Consolidated Financial Statements.

In December 2007, the FASB issued SFAS No. 160, *Noncontrolling Interests in Consolidated Financial Statements—an amendments of ARB No. 51*. SFAS No. 160 requires that accounting and reporting for minority interests will be recharacterized as noncontrolling interests and classified as a component of equity. SFAS No. 160 also establishes reporting requirements that provide sufficient disclosures that clearly identify and distinguish between the interests of the parent and the interests of the noncontrolling owners. SFAS No. 160 applies to all entities that prepare consolidated financial statements, except not-for-profit organizations, but will affect only those entities that have an outstanding noncontrolling interest in one or more subsidiaries or that deconsolidate a

subsidiary. This statement is effective as of the beginning of an entity's first fiscal year beginning after December 15, 2008. This statement will be effective for us for our fiscal year beginning January 1, 2009. Based upon the December 31, 2007 balance sheet, the impact of adopting SFAS No. 160 would be to reclassify from $143,000 minority interests in consolidated subsidiaries to stockholders' equity as a separate component of stockholders' equity.

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities*. SFAS No. 159 provides companies with an option to report selected financial assets and financial liabilities at fair value. Unrealized gains and losses on items for which the fair value option has been elected are reported in earnings at each subsequent reporting date. SFAS No. 159 is effective beginning January 1, 2008. The adoption of the provisions of SFAS No. 159 is not expected to have a material effect on our Consolidated Financial Statements.

In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurements*. SFAS No. 157 establishes a common definition for fair value to be applied to United States generally accepted accounting principles guidance requiring use of fair value, establishes a framework for measuring fair value, and expands disclosure about such fair value measurements. This Statement is effective for fiscal years beginning after November 15, 2007. This statement will be effective for the Company for its fiscal year beginning January 1, 2008. The adoption of the provisions of SFAS No. 157 is not expected to have a material effect on our Consolidated Financial Statements.

In September 2006, the FASB issued SFAS No. 158, *Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans, an amendment of FASB Statements No. 87, 88, 106, and 132(R)*. Among other items, SFAS No. 158 requires recognition of the over-funded or under-funded status of an entity's defined benefit postretirement plan as an asset or liability in the financial statements, requires the measurement of defined benefit postretirement plan assets and obligations as of the end of the employer's fiscal year, and requires recognition of the funded status of defined benefit postretirement plans in other comprehensive income. This Statement is effective for fiscal years ending after December 15, 2006. Since we do not maintain any defined benefit or other postretirement plans, the adoption of this Statement for fiscal year 2007 did not have a material effect on our Consolidated Financial Statements.

In March 2006, the FASB issued SFAS No. 156, *Accounting for Servicing of Financial Assets*—an amendment of FASB *Statement No. 140,* which provides guidance on accounting for separately recognized servicing assets and servicing liabilities. In accordance with the provisions of SFAS No. 156, separately recognized servicing assets and servicing liabilities must be initially measured at fair value, if practicable. Subsequent to initial recognition, we may use either the amortization method or the fair value measurement method to account for servicing assets and servicing liabilities within the scope of this Statement. Our adoption of this Statement in fiscal year 2007 did not have a material effect on our Consolidated Financial Statements.

In February 2006, the FASB issued SFAS No. 155, *Accounting for Certain Hybrid Financial Instruments*—an amendment of FASB *Statements No. 133 and 140*, to permit fair value remeasurement for any hybrid financial instrument that contains an embedded derivative that otherwise would require bifurcation in accordance with the provisions of SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities.* Our adoption of this Statement in fiscal year 2007 did not have a material effect on our Consolidated Financial Statements.

Item 8: Financial Statements and Supplementary Data

The financial statements filed herewith are set forth on the Index to Consolidated Financial Statements on Page F-1 of the separate financial section, which follows page 41 of this report and are incorporated herein by reference.

Selected Quarterly Financial Data

(Unaudited and in thousands except per share amounts)	1st	2nd	3rd	4th
2006				
Product revenue	$ 1,513	$ 1,700	$ 1,693	$ 2,761
Funded research and development revenue	45	93	173	178
Gross profit – product revenue	974	974	1,043	1,776
Gross loss – funded research and development	(165)	(37)	(150)	(311)
Net loss	$ (3,431)	$ (3,222)	$ (3,678)	$ (3,336)
Loss per Share (Basic and Diluted):				
Net loss	$ (0.11)	$ (0.10)	$ (0.12)	$ (0.10)
2007				
Product revenue	$ 1,701	$ 2,275	$ 2,196	$ 2,856
Funded research and development revenue	615	353	357	231
Gross profit – product revenue	963	1,459	1,348	1,828
Gross profit (loss) – funded research and development	391	(151)	(334)	(241)
Net loss	$ (3,156)	$ (2,487)	$ (2,481)	$ (1,451)
Loss per Share (Basic and Diluted):				
Net loss	$ (0.08)	$ (0.07)	$ (0.07)	$ (0.03)

Item 9: Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A: Controls and Procedures

(a) Evaluation of Disclosure Controls and Procedures

Evaluation of Disclosure Controls and Procedures: Our management, with the participation of our chief executive officer and chief financial officer, evaluated the effectiveness of MTI's disclosure controls and procedures as of December 31, 2007. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. We recognize that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and we necessarily apply our judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the valuation of our disclosure controls and procedures as of December 31, 2007, our chief executive officer and chief financial officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control over Financial Reporting: There have been no changes in our internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act, during our fiscal quarter ended December 31, 2007 that have materially affected, or are reasonable likely to materially affect our internal control over financial reporting.

(b) Management's Report on Internal Control Over Financial Reporting

Management of our Company is responsible for establishing and maintaining adequate internal control over financial reporting, as that term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Under the supervision and with the participation of our management, including the principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting using the criteria set forth in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation using the criteria set forth in *Internal Control—Integrated Framework*, Management has concluded that our internal control over financial reporting was effective as of December 31, 2007.

This annual report does not include an attestation report of our registered public accounting firm regarding internal control over financial reporting. Our report was not subject to attestation by our registered public accounting firm pursuant to temporary rules of the SEC that permit us to provide only Management's report in this annual report.

/s/ Peng K. Lim
Chief Executive Officer
(Principal Executive Officer)

/s/ Cynthia A. Scheuer
Vice President and Chief Financial Officer
(Principal Financial Officer)

Item 9B: Other Information

None.

PART III

Item 10: Directors, Executive Officers and Corporate Governance

(a) Directors

Incorporated herein by reference is the information appearing under the captions “Information about our Directors” and “Compliance with Section 16(a) of the Securities Exchange Act of 1934” in our definitive Proxy Statement for our 2008 Annual Meeting of Stockholders to be filed with the SEC.

(b) Executive Officers

Incorporated herein by reference is the information appearing under the captions “Executive Officers” and “Compliance with Section 16(a) of the Securities Exchange Act of 1934” in our definitive Proxy Statement for our 2008 Annual Meeting of Stockholders to be filed with the SEC.

Incorporated herein by reference is the information appearing under the caption “Board of Director Meetings and Committees – Audit Committee” in our definitive Proxy Statement for our 2008 Annual Meeting of Stockholders to be filed with the SEC.

Code of Ethics: We have adopted a Code of Ethics for employees, officers and directors. The Code of Ethics is intended to comply with Item 406 of Regulation S-K of the Exchange Act and with applicable rules of Nasdaq. A copy may be obtained at no charge by written request to the attention of our Secretary at 431 New Karner Road, Albany, New York 12205. A copy of the Code of Ethics is also available on our website at http://www.mechtech.com.

Item 11: Executive Compensation

Incorporated herein by reference is the information appearing under the caption “Executive Compensation” in the Company’s definitive Proxy Statement for our 2008 Annual Meeting of Stockholders to be filed with the SEC.

Item 12: Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Incorporated herein by reference is the information appearing under the caption “Principal Stockholders” in our definitive Proxy Statement for our 2008 Annual Meeting of Stockholders to be filed with the SEC.

Equity Compensation Plans

As of December 31, 2007, we have three equity compensation plans, each of which has been approved by our stockholders; the Mechanical Technology, Incorporated 1996 Stock Incentive Plan (the "1996 Plan"), 1999 Employee Stock Incentive Plan (the "1999 Plan") and 2006 Equity Incentive Plan (the "2006 Plan"), to which we refer collectively as the Plans. See Note 13 to the Consolidated Financial Statements referred to in Item 8 for a description of these Plans.

The following table presents information regarding these plans:

Plan Category	Number of Securities To Be Issued Upon Exercise of Outstanding Options, Warrants, Rights[1] (a)	Weighted Average Exercise Price of Outstanding Options, Warrants, Rights (b)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders	6,213,566	$ 3.24	1,265,733

(1) Under the 1996, 1999 and 2006 Plans, the securities available under the Plans for issuance and issuable pursuant to exercises of outstanding options may be adjusted in the event of a change in outstanding stock by reason of stock dividend, stock splits, reverse stock splits, etc.

Item 13: Certain Relationships and Related Transactions, and Director Independence

Incorporated herein by reference is the information appearing under the caption "Certain Relationships and Related Transactions" in our definitive Proxy Statement for the 2008 Annual Meeting of Stockholders to be filed with the SEC.

Item 14: Principal Accountant Fees and Services

Incorporated herein by reference is the information appearing under the caption "Independent Accountants" in our definitive Proxy Statement for the 2008 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission.

PART IV

Item 15: Exhibits, Financial Statement Schedules

15(a) (1) Financial Statements: The financial statements filed herewith are set forth on the Index to Consolidated Financial Statements on page F-1 of the separate financial section which accompanies this Report, which is incorporated herein by reference.

15(a) (2) Financial Statement Schedules: The following consolidated financial statement schedule for the years ended December 31, 2005, 2006, and 2007 is included pursuant to Item 15(d):

Report of Independent Registered Public Accounting Firm on Financial Statements Schedule;

Schedule II - Valuation and Qualifying Accounts.

All other financial statement schedules not listed have been omitted because they are either not required, not applicable, or the information has been included elsewhere in the consolidated financial statements or notes thereto.

15(a) (3) Exhibits: The exhibits listed in the Exhibit Index immediately preceding the exhibits are filed as part of this Annual Report on Form 10-K.

The following exhibits are filed as part of this Report:

Exhibit Number	Description
1.1	Placement Agreement dated December 15, 2006 with Rodman & Renshaw, LLC. (20)
3.1	Certificate of Incorporation of the registrant, as amended and restated.
3.3	By-Laws of the registrant, as amended and restated. (25)
4.1	Form of Common Stock Purchase Warrant to be issued by the Company. (20)
10.14	Mechanical Technology, Incorporated 1996 Stock Incentive Plan. (1)
10.30	Mechanical Technology, Incorporated 1999 Employee Stock Incentive Plan. (2)
10.38	Lease dated August 10, 1999 between Carl E. Touhey and Mechanical Technology, Inc. (3)

10.43	Lease dated April 2, 2001 between Kingfisher LLC and Mechanical Technology, Inc. (4)
10.44	First Amendment to lease dated March 13, 2003 between Kingfisher LLC and Mechanical Technology, Inc. (5)
10.119	Strategic Alliance Agreement, dated as of September 19, 2003, between The Gillette Company and MTI MicroFuel Cells Inc. (6)
10.121	Agreement, dated January 26, 2004, between Mechanical Technology, Inc. and Fletcher International, Ltd. (8)
10.122	Amendment No. 1 to the Main Agreement dated as of May 4, 2004 entered into by and between the registrant and Fletcher International, Ltd. (9)
10.123	Amendment to the Strategic Alliance Agreement between The Gillette Company and MTI MicroFuel Cells Inc. dated August 18, 2004. (10)
10.129	Summary of Changes in Compensation of Named Executive Officers of the Registrant.
10.130	Cash Compensation for Non-Management Directors of the Registrant.
10.131	Amendment No. 2 to the Strategic Alliance Agreement between The Gillette Company and MTI MicroFuel Cells Inc. dated June 20, 2005. (11)

10.132	Second Amendment to lease dated December 12, 2005 between Kingfisher, LLC and Mechanical Technology, Incorporated. (12)
10.135	Employment Agreement dated March 6, 2006 between Russel Marvin and MTI MicroFuel Cells Inc. (14)
10.136	Employment Agreement dated September 25, 2002 between Cynthia A. Scheuer and Mechanical Technology, Incorporated and MTI MicroFuel Cells Inc. (13)
10.137	Employment Agreement dated November 19, 2004 between Juan Becerra and MTI MicroFuel Cells Inc. (13)
10.139	Employment Agreement dated May 4, 2006 between Peng K. Lim and MTI MicroFuel Cells Inc. (16)
10.140	Form of Restricted Stock Agreement for the 1996 and 1999 Mechanical Technology, Inc. Stock Incentive Plans. (17)
10.141 (A)	Alliance Agreement dated May 16, 2006 between MTI MicroFuel Cells Inc. and Samsung Electronics Co., Ltd. (18)
10.142	Third Amendment to lease dated August 7, 2006 between Kingfisher, LLC and Mechanical Technology, Incorporated. (18)
10.143 (A)	Amendment No. 3 to the Strategic Alliance Agreement dated September 13, 2006, between MTI MicroFuel Cells Inc. and The Gillette Company. (19)
10.144	Form of Subscription Agreement. (20)
10.145	Mechanical Technology, Incorporated 2006 Equity Incentive Plan. (15)
10.146	Separation Agreement dated March 20, 2007 between Russel Marvin and MTI MicroFuel Cells Inc. (21)
10.147	Employment Agreement dated March 27, 2007 between Robert Kot and MTI Instruments, Inc. (22)
10.148	Fourth Amendment to lease dated August 6, 2007 between Kingfisher LLC and Mechanical Technology, Incorporated. (23)
10.150	Future Collaboration Agreement dated October 22, 2007 between MTI MicroFuel Cells Inc. and Samsung Electronics Co., Ltd. (24)
10.151	Employment Agreement dated April 3, 2006 between James K. Prueitt and MTI MicroFuel Cells Inc.
14.1	Code of Ethics. (13)
21	Subsidiaries of the Registrant. (7)
23.2	Consent of Independent Registered Public Accounting Firm – PricewaterhouseCoopers LLP.
31.1	Rule 13a-14(a)/15d-14(a) Certification of Peng K. Lim.
31.2	Rule 13a-14(a)/15d-14(a) Certification of Cynthia A. Scheuer.
32.1	Section 1350 Certification of Peng K. Lim.
32.2	Section 1350 Certification of Cynthia A. Scheuer.

Certain exhibits were previously filed (as indicated below) and are incorporated herein by reference. All other exhibits for which no other filing information is given are filed herewith:

(1) Filed as Appendix A to the registrant's Definitive Proxy Statement Schedule 14A filed November 19, 1996.

(2) Filed as an Exhibit to the registrant's Proxy Statement, Schedule 14A, dated February 13, 1999.
(3) Filed as an Exhibit to the registrant's Form 10-K Report for the fiscal year ended September 30, 1999.
(4) Filed as an Exhibit to our Form 10-K Report for the fiscal year ended September 30, 2001.
(5) Filed as an Exhibit to the registrant's Form 10-K Report for the year ended December 31, 2002.
(6) Filed as an Exhibit to the registrant's Form 10-Q Report for the fiscal quarter ended September 30, 2003.
(7) Filed as an Exhibit to the registrant's Form 10-K Report for the year ended December 31, 2003.
(8) Filed as an Exhibit to the registrant's Form 8-K Report dated January 27, 2004.
(9) Filed as an Exhibit to the registrant's Form 8-K Report dated May 4, 2004.
(10) Filed as an Exhibit to the registrant's Form 10-Q Report for the quarter ended September 30, 2004.
(11) Filed as an Exhibit to the registrant's Form 8-K Report dated June 20, 2005.
(12) Filed as an Exhibit to the registrant's Form 8-K Report dated December 12, 2005.
(13) Filed as an Exhibit to the registrant's Form 10-K Report for the year ended December 31, 2005.
(14) Filed as an Exhibit to the registrant's Form 8-K Report dated March 6, 2006.
(15) Filed as an Exhibit to the registrant's Proxy Statement, Schedule 14A, dated April 3, 2006.
(16) Filed as an Exhibit to the registrant's Form 8-K Report dated May 4, 2006.
(17) Filed as an Exhibit to the registrant's Form 8-K Report dated May 18, 2006.
(18) Filed as an Exhibit to the registrant's Form 10-Q Report for the quarter ended June 30, 2006.
(19) Filed as an Exhibit to the registrant's Form 10-Q Report for the quarter ended September 30, 2006.
(20) Filed as an Exhibit to the registrant's Form 8-K Report dated December 15, 2006.
(21) Filed as an Exhibit to the registrant's Form 8-K Report dated March 22, 2007.
(22) Filed as an Exhibit to the registrant's Form 8-K Report dated March 28, 2007.
(23) Filed as an Exhibit to the registrant's Form 10-Q Report for the quarter ended June 30, 2007.
(24) Filed as an Exhibit to the registrant's Form 8-K Report dated October 25, 2007.
(25) Filed as an Exhibit to the registrant's Form 8-K Report dated December 14, 2007.

(A) Certain portions of this exhibit have been omitted pursuant to a request for confidential treatment filed with the Securities and Exchange Commission.

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.

MECHANICAL TECHNOLOGY, INCORPORATED

Date: March 27, 2008

By: /s/ Peng K. Lim
Peng K. Lim
Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Peng K. Lim Peng K. Lim	Chief Executive Officer and Director	March 27, 2008
/s/ Cynthia A. Scheuer	Vice President, Chief Financial Officer, and Secretary	March 27, 2008
Cynthia A. Scheuer	(Principal Financial and Accounting Officer)	
/s/ Steven N. Fischer	Chairman and Director	March 27, 2008
Steven N. Fischer		
/s/ Thomas J. Marusak	Director	March 27, 2008
Thomas J. Marusak		
/s/ William P. Phelan	Director	March 27, 2008
William P. Phelan		
/s/ E. Dennis O'Connor	Director	March 27, 2008
E. Dennis O'Connor		
/s/ Walter L. Robb	Director	March 27, 2008
Dr. Walter L. Robb		

REPORT OF INDEPENDENT REGISTERED PUBLIC

ACCOUNTING FIRM ON FINANCIAL STATEMENT SCHEDULE

To the Board of Directors and Stockholders

of Mechanical Technology, Incorporated

Our audits of the consolidated financial statements referred to in our report dated February 28, 2008 appearing on page F-2 of this Form 10-K of Mechanical Technology, Incorporated, also included an audit of the financial statement schedule listed in Item 15(a)(2) of this Form 10-K. In our opinion, this financial statement schedule presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements.

/s/PricewaterhouseCoopers LLP

Buffalo, New York

February 28, 2008

MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES

VALUATION AND QUALIFYING ACCOUNTS

(DOLLARS IN THOUSANDS)

Description	Balance at Beginning of Period	Additions Charged to Costs and Expenses	Additions Charged to Other Accounts	Deductions	Balance at End of Period
Allowance for doubtful accounts (accounts receivable) for the years ended:					
December 31, 2005	$ 58	$ —	$ —	$ (58)	$ —
December 31, 2006	$ —	$ —	$ —	$ —	$ —
December 31, 2007	$ —	$ —	$ —	$ —	$ —
Includes accounts written off as uncollectible and recoveries.					
Valuation allowance for deferred tax assets for the years ended:					
December 31, 2005	$ 1,836	$ 9,087	$ —	$ —	$ 10,923
December 31, 2006	$ 10,923	$ 7,915	$ (23)	$ —	$ 18,815
December 31, 2007	$ 18,815	$ 3,518	$ —	$ —	$ 22,333
Inventory reserve for the years ended:					
December 31, 2005	$ 67	$ 75	$ 9	$ (103)	$ 48
December 31, 2006	$ 48	$ 136	$ (1)	$ (33)	$ 150
December 31, 2007	$ 150	$ 137	$ 28	$ 133	$ 182

MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of

Mechanical Technology, Incorporated:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, stockholders' equity and comprehensive income (loss), and of cash flows present fairly, in all material respects, the financial position of Mechanical Technology, Incorporated and its subsidiaries at December 31, 2006 and 2007, and the results of their operations and theircash flows for each of the three years in the period ended December 31, 2007in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has suffered recurring losses from operations and has a net capital deficiency that raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ PricewaterhouseCoopers LLP

Buffalo, New York

February 28, 2008

MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

December 31, 2006 and 2007

(Dollars in thousands)	December 31, 2006	2007
Assets		
Current Assets:		
Cash and cash equivalents	$ 14,545	$ 7,650
Securities available for sale	10,075	4,492
Accounts receivable	1,613	1,369
Inventories, net	1,216	1,373
Prepaid expenses and other current assets	442	329
Total Current Assets	27,891	15,213
Property, plant and equipment, net	2,926	2,159
Deferred income taxes	2,994	1,344
Total Assets	$ 33,811	$ 18,716
Liabilities and Stockholders' Equity		
Current Liabilities:		
Accounts payable	$ 651	$ 273
Accrued liabilities	2,470	2,121
Deferred revenue	866	117
Income taxes payable	90	11
Deferred income taxes	2,994	1,344
Total Current Liabilities	7,071	3,866
Long-Term Liabilities:		
Uncertain tax position liability	—	208
Derivative liability	3,664	696
Total Long-Term-Liabilities	3,664	904
Total Liabilities	10,735	4,770
Commitments and Contingencies		
Minority interests	205	143

Stockholders' Equity:		
Common stock, par value $0.01 per share, authorized 75,000,000; 46,084,678 issued in 2006 and 46,220,624 issued in 2007	461	462
Paid-in-capital	130,565	131,661
Accumulated deficit	(95,385)	(105,066)
Accumulated Other Comprehensive Income:		
Unrealized gain on securities available for sale, net of tax	984	500
Common stock in treasury, at cost, 8,040,736 shares in 2006 and 2007	(13,754)	(13,754)
Total Stockholders' Equity	22,871	13,803
Total Liabilities and Stockholders' Equity	$ 33,811	$ 18,716

The accompanying notes are an integral part of the consolidated financial statements.

MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS

For the Years Ended December 31, 2005, 2006, and 2007

(Dollars in thousands, except per share)	Years Ended December 31,		
	2005	**2006**	**2007**
Product revenue	$ 6,012	$ 7,667	$ 9,028
Funded research and development revenue	1,829	489	1,556
Total revenue	7,841	8,156	10,584
Operating costs and expenses:			
Cost of product revenue	2,381	2,900	3,430
Research and product development expenses:			
Funded research and product development	3,555	1,152	1,891
Unfunded research and product development	6,116	11,769	9,874
Total research and product development expenses	9,671	12,921	11,765
Selling, general and administrative expenses	10,887	10,072	8,738
Operating loss	(15,098)	(17,737)	(13,349)
Gain (loss) on derivatives	(10,407)	182	2,967
Gain on sale of securities available for sale	10,125	4,289	2,549
Other income, net	431	286	224
Loss before income taxes and minority interests	(14,949)	(12,980)	(7,609)
Income tax (expense)	(1,587)	(1,895)	(2,548)
Minority interests in losses of consolidated subsidiary	1,442	1,208	582
Net loss	$ (15,094)	$ (13,667)	$ (9,575)
Loss per Share (Basic and Diluted):			
Loss per share	$ (0.49)	$ (0.43)	$ (0.25)

The accompanying notes are an integral part of the consolidated financial statements.

MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

AND COMPREHENSIVE INCOME (LOSS)

For the Years Ended December 31, 2005, 2006, and 2007

(Dollars in thousands)	Years Ended December 31,		
	2005	**2006**	**2007**
Common Stock			
Balance, beginning	$ 387	$ 390	$ 461
Issuance of shares – private placement	1	—	—
Issuance of shares – capital	—	60	—
Issuance of shares – anti-dilution penalty	—	3	—
Issuance of shares – stock options	1	7	—
Issuance of shares – restricted stock	1	1	1
Balance, ending	$ 390	$ 461	$ 462
Paid-In Capital			
Balance, beginning	$ 121,033	$ 122,095	$ 130,565
Private placement, net of expenses	(45)	—	—
Capital raise and warrant issuance, net of expenses	—	6,250	—
Issuance of shares – stock options	325	1,181	59
Share-based compensation	1,083	2,406	1,558
MTI MicroFuel Cell investment	(301)	(1,284)	(521)
Elimination of unearned compensation due to change in accounting principle	—	(80)	—
Issuance of shares – anti-dilution penalty	—	(3)	—
Balance, ending	$ 122,095	$ 130,565	$ 131,661
Accumulated Deficit			
Balance, beginning	$ (66,624)	$ (81,718)	$ (95,385)
Cumulative effect of adoption of FIN 48	—	—	(106)
Net loss	(15,094)	(13,667)	(9,575)
Balance, ending	$ (81,718)	$ (95,385)	$ (105,066)
Accumulated Other Comprehensive Income (Loss):			
Unrealized Gain (loss) on Securities Available for Sale, Net of Taxes			

Balance, beginning	$ 14,542	$ 5,983	$ 984
Change in unrealized (loss) gain on securities available for sale (net of taxes of $0 in 2005, 2006, and 2007)	(3,620)	(3,212)	68
Less reclassification adjustment for gains included in net income (net of taxes of $3,293 in 2005, $1,913 in 2006 and $2,518 in 2007)	(4,939)	(1,787)	(552)
Balance, ending	$ 5,983	$ 984	$ 500
Restricted Stock Grants – Unearned Compensation			
Balance, beginning	—	(80)	—
Elimination of unearned compensation due to change in accounting principle	—	80	—
Issuance of shares	(125)	—	—
Grants amortization	45	—	—
Balance, ending	$ (80)	$ —	$ —
Treasury Stock			
Balance, beginning	$ (13,754)	$ (13,754)	$ (13,754)
Balance, ending	$ (13,754)	$ (13,754)	$ (13,754)
Total Stockholders' Equity	$ 32,916	$ 22,871	$ 13,803
Total Comprehensive (Loss):			
Net loss	$ (15,094)	$ (13,667)	$ (9,575)
Other comprehensive (loss):			
Reclassification adjustment for gains included in net income, net of taxes	(4,939)	(1,787)	(552)
Change in unrealized (loss) gain on securities available for sale, net of taxes	(3,620)	(3,212)	68
Total comprehensive (loss)	$ (23,653)	$ (18,666)	$ (10,059)

The accompanying notes are an integral part of the consolidated financial statements.

MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

For the Years Ended December 31, 2005, 2006, and 2007

(Dollars in thousands)	Years Ended December 31,		
	2005	**2006**	**2007**
Operating Activities			
Net loss	$ (15,094)	$ (13,667)	$ (9,575)
Adjustments to reconcile net loss to net cash used by operating activities:			
(Gain) loss on derivatives	10,407	(182)	(2,967)
Gain on sale of securities available for sale	(10,125)	(4,289)	(2,549)
Depreciation and amortization	1,253	1,101	1,129
Minority interests in losses of consolidated subsidiary	(1,442)	(1,208)	(582)
Allowance for bad debts	(58)	(1)	—
Loss on disposal of fixed assets	130	40	39
Deferred income taxes	1,617	1,890	2,518
Stock based compensation	1,003	2,406	1,558
Changes in operating assets and liabilities:			
Accounts receivable	832	(614)	244
Other receivables – related parties	—	3	—
Inventories	78	(158)	(157)
Prepaid expenses and other current assets	53	9	113
Accounts payable	362	277	(379)
Income taxes payable	25	25	23
Deferred revenue	(359)	746	(749)
Accrued liabilities - related parties	2	(2)	—
Accrued liabilities	(1,256)	918	(349)
Net cash used by operating activities	(12,572)	(12,706)	(11,683)
Investing Activities			
Purchases of property, plant and equipment	(1,004)	(1,574)	(414)
Proceeds from sale of property, plant and equipment	10	2	12
Proceeds from sale of securities available for sale	1,969	6,249	5,130
Net cash provided by investing activities	975	4,677	4,728

Financing Activities			
Gross proceeds from capital raise and warrants issued	—	10,900	—
Costs of private placement	(45)	—	—
Cost of capital raise	—	(744)	—
Proceeds from stock option exercises	327	1,188	60
Net cash provided by financing activities	282	11,344	60
(Decrease) increase in cash and cash equivalents	(11,315)	3,315	(6,895)
Cash and cash equivalents - beginning of year	22,545	11,230	14,545
Cash and cash equivalents - end of year	$ 11,230	$ 14,545	$ 7,650

The accompanying notes are an integral part of the consolidated financial statements.

MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Nature of Operations

Description of Business

Mechanical Technology, Incorporated, ("MTI" or the "Company"), a New York corporation, was incorporated in 1961. MTI operates in two segments; the new energy segment which is conducted through MTI MicroFuel Cells Inc. ("MTI Micro"), a majority owned subsidiary, and the test and measurement instrumentation segment, which is conducted through MTI Instruments, Inc. ("MTI Instruments"), a wholly owned subsidiary.

At its MTI Micro subsidiary, the Company's Mobion® cord-free power packs are being developed to replace current lithium ion and similar rechargeable battery systems in many handheld electronic devices for the military and consumer markets. Mobion® power packs are based on direct methanol fuel cell technology which has been recognized as enabling technology for advanced portable power sources by the scientific community and industry analysts. As the need for advancements in portable power increases, MTI Micro is developing Mobion® cord-free rechargeable power pack technology as a superior solution for powering the multi-billion dollar portable electronics market.

At its MTI Instruments subsidiary, the Company continues to be a worldwide supplier of precision non-contact physical measurement solutions, condition based monitoring systems, portable balancing equipment and semiconductor wafer inspection tools. MTI Instruments' products use a comprehensive array of technologies to solve complex real world applications in numerous industries including manufacturing, semiconductor, commercial/military aviation, automotive and data storage. The Company's products consist of electronic gauging instruments for position, displacement and vibration applications within the design, manufacturing/production, test and research markets; semiconductor products for wafer characterization of semi-insulating and semi-conducting wafers within the semiconductor industry; and engine balancing and vibration analysis systems for both military and commercial aircraft.

Liquidity and Going Concern

The Company has incurred significant losses as it continues to fund MTI Micro's direct methanol fuel cell product development and commercialization programs, and has an accumulated deficit of $105,066 thousand and working capital of $11,347 thousand at December 31, 2007. Because of these losses, limited current cash, cash equivalents and securities available for sale, negative cash flows and accumulated deficit, the report of the Company's independent registered public accounting firm for the year ended December 31, 2007 expressed substantial doubt about the Company's ability to continue as a going concern.

During 2007, the Company sold 1,452,770 shares of Plug Power Inc. ("Plug Power") common stock with proceeds totaling $5,130 thousand and gains totaling $2,549 thousand. These proceeds reflect the Company's previously announced strategy to raise additional capital through the sale

of Plug Power stock in order to fund MTI Micro operations.

Based on the Company's projected cash requirements for operations and capital expenditures for 2008 and its current cash, cash equivalents and marketable securities of $12,142 thousand at December 31, 2007, management believes it will have adequate resources to fund operations and capital expenditures for the next twelve months based on current cash and cash equivalents, current cash flow requirements, revenue and expense projections and the potential sale of securities available for sale at current market values.

However, the Company may need to do one or more of the following to raise additional resources, or reduce its cash requirements:

- reduce its current expenditure run-rate;
- sell additional shares of Plug Power;
- obtain additional government or private funding of the Company's direct methanol fuel cell research, development, manufacturing readiness and commercialization;
- sell operating divisions of the Company; or
- secure additional equity financing.

There is no guarantee that such resources will be available to the Company on terms acceptable to it, or at all, or that such resources will be received in a timely manner, if at all, or that the Company will be able to reduce its expenditure run-rate without materially and adversely affecting its business.

MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

2. Accounting Policies

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its majority-owned subsidiaries. All significant inter-company transactions are eliminated in consolidation.

Minority interest in subsidiaries consists of equity securities issued by a subsidiary of the Company. No gain or loss was recognized as a result of the issuance of these securities, and the Company owned a majority of the voting equity of the subsidiary both before and after the transactions. The Company reflects the impact of the equity securities issuances in its investment in subsidiary and additional paid-in-capital accounts for the dilution or anti-dilution of its ownership interest in the subsidiary.

Use of Estimates

The preparation of the consolidated financial statements in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP") which requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Fair Value of Financial Instruments

The Company's financial instruments consist of cash and cash equivalents, marketable securities, accounts receivable, unbilled contract costs and fees, derivatives and accounts payable. The estimated fair values of these financial instruments approximate their carrying values at December 31, 2006 and 2007. The estimated fair values have been determined through information obtained from market sources, where available, or Black-Scholes Option Pricing model valuations.

Accounting for Derivative Instruments

The Company accounts for derivative instruments and embedded derivative instruments in accordance with Statement of Financial Accounting Standards ("SFAS") No. 133 *Accounting for Derivative Instruments and Hedging Activities,* as amended. The amended standard requires an entity to recognize all derivatives as either assets or liabilities in the statement of financial position and measure these instruments at fair value. Fair value is estimated using the Black-Scholes Option Pricing model. The Company also follows Emerging Issues Task Force ("EITF") Issue No. 00-19, *Accounting for Derivative Financial Instruments Indexed to and Potentially Settled in, a Company's Own Stock*, which requires freestanding contracts that are settled in a company's own stock, including common stock warrants, to be designated as an equity instrument, asset or a liability. Under the provisions of EITF Issue No. 00-19, a contract designated as an asset or a liability must be carried at fair value, with any changes in fair value recorded in the results of operations. A contract designated as an equity instrument can be included in equity, with no fair value adjustments are required.

The asset/liability derivatives are valued on a quarterly basis using the Black-Scholes Option Pricing model. Significant assumptions used in the valuation include exercise dates, closing market prices for the Company's common stock, volatility of the Company's common stock, and proxy risk-free interest rates. Gains (losses) on derivatives are included in "Gain (loss) on derivatives" in the Consolidated Statement of Operations.

Accounts Receivable and Allowance for Doubtful Accounts

Trade accounts receivable are recorded at the invoiced amount and do not bear interest. An allowance for doubtful accounts, if necessary, represents the Company's best estimate of the amount of probable credit losses in its existing accounts receivable. The Company determines the allowance based on historical write-off experience and current exposures identified. The Company reviews its allowance for doubtful accounts monthly. Past due balances over 90 days and over a specified amount are reviewed individually for collectability. All other balances are reviewed on a pooled basis by type of receivable. Account balances are charged off against the allowance when the Company believes it is probable the receivable will not be recovered. The Company does not have any off-balance-sheet credit exposure related to its customers.

Inventories

Inventories are valued at the lower of cost (first-in, first-out) or market. The Company provides estimated inventory allowances for excess, slow moving and obsolete inventory as well as inventory whose carrying value is in excess of net realizable value.

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Property, Plant, and Equipment

Property, plant and equipment are stated at cost and depreciated using primarily the straight-line method over their estimated useful lives:

Leasehold improvements	Lesser of the life of the lease or the useful life of the improvement
Computers and related software	3 to 5 years
Machinery and equipment	3 to 10 years
Office furniture, equipment and fixtures	2 to 10 years

Significant additions or improvements extending assets' useful lives are capitalized; normal maintenance and repair costs are expensed as incurred. The costs of fully depreciated assets remaining in use are included in the respective asset and accumulated depreciation accounts. When items are sold or retired, related gains or losses are included in net (loss) income.

Income Taxes

The Company accounts for taxes in accordance with SFAS No. 109, *Accounting for Income Taxes* ("SFAS No. 109"), which requires the use of the asset and liability method of accounting for income taxes. Under the asset and liability method, deferred income taxes are recognized for the tax consequences of "temporary differences" by applying enacted statutory tax rates applicable for future years to differences between financial statement and tax bases of existing assets and liabilities. Under SFAS No. 109, the effect of tax rate changes on deferred taxes is recognized in the income tax provision in the period that includes the enactment date. The provision for taxes is reduced by investment and other tax credits in the years such credits become available. A valuation allowance is recorded to reduce the carrying amounts of deferred tax assets unless it is more likely than not those assets will be realized.

Effective January 1, 2007, the Company adopted the provisions of FASB Interpretation (FIN) No. 48, *Accounting for Uncertainty in Income Taxes—an Interpretation of FASB Statement No. 109*. FIN 48 contains a two-step approach to recognizing and measuring uncertain tax positions (tax contingencies) accounted for in accordance with SFAS No. 109. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount which is more than 50% likely of being realized upon ultimate settlement. The Company considers many factors when evaluating and estimating its tax positions and tax benefits, which may require periodic adjustments and which may not accurately forecast actual outcomes.

Revenue Recognition

The Company applies the guidance within SEC Staff Accounting Bulletin ("SAB") No. 104 *Revenue Recognition* ("SAB No. 104")in the evaluation of its contracts to determine when to properly recognize revenue. Under SAB No. 104, revenue is recognized when title and risk of loss have passed to the customer, there is persuasive evidence of an arrangement, the fee is fixed or determinable, delivery has occurred or services have been rendered, the sales price is determinable, and collectability is reasonably assured.

Product Revenue

Product revenue is recognized when there is persuasive evidence of an arrangement, the collection of a fixed fee is probable or determinable, delivery of the product to the customer or distributor has occurred, at which time title generally is passed to the customer or distributor, all of which generally occur upon shipment of the product. If the product requires installation to be performed by the Company, all revenue related to the product is deferred and recognized upon the completion of the installation. If the product requires specific customer acceptance, revenue is deferred until customer acceptance occurs or the acceptance provisions lapse, unless the Company can objectively and reliably demonstrate that the criteria specified in the acceptance provisions are satisfied.

MTI Instruments, a wholly-owned subsidiary of MTI, currently has distributor agreements in place for the international sale of general instrument and semiconductor products in certain global regions. Such agreements grant a distributor the right of first refusal to act as distributor for such products in the distributor's territory. In return, the distributor agrees to not market other products which are considered by MTI Instruments to be in direct competition with MTI Instruments' products. The distributor is allowed to purchase MTI Instruments' equipment at a price which is discounted off the published domestic/international list prices. Such list prices can be adjusted by MTI Instruments during the term of the distributor agreement, but MTI Instruments must provide advance notice at least 90 days before the price adjustment goes into effect. Generally, payment terms with the distributor are standard net 30 days; however, on occasion, extended payment terms have been granted. Title and risk of loss of the product passes to the distributor upon delivery to the independent carrier (standard "free-on-board" factory), and the distributor is responsible for any required training and/or service with the end-user. The sale (and subsequent payment) between MTI Instruments and the distributor is not contingent upon the successful resale of the product by the distributor. Distributor sales are covered by MTI Instruments' standard one-year warranty and there are no special return policies for distributors.

MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES

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Some of MTI Instruments' direct sales, particularly sales of semi-automatic and fully-automated semiconductor metrology equipment, or rack-mounted vibration systems, involve on-site customer acceptance and/or installation. In those instances, revenue recognition does not take place at time of shipment. Instead, MTI Instruments recognizes the sale after the unit is installed and/or an on-site acceptance is given by the customer. Agreed-upon acceptance terms and conditions, if any, are negotiated at the time of purchase.

Funded Research and Development Revenue

The Company performs funded research and development for government agencies under both cost reimbursement and fixed-price contracts. Cost reimbursement contracts provide for the reimbursement of allowable costs. On fixed-price contracts, revenue is generally recognized on the percentage of completion method based upon the proportion of costs incurred to the total estimated costs for the contract. Revenue from reimbursement contracts is recognized as the services are performed. In each type of contract, the Company generally receives periodic progress payments or payments upon reaching interim milestones. When the current estimates of total contract revenue for commercial development contracts indicate a loss, a provision for the entire loss on the contract is recorded. Any losses incurred in performing funded research and development projects are recognized as research and development expense as incurred. When government agencies are providing funding they do not expect the government to be the only significant end user of the resulting products. These contracts do not require delivery of products that meet defined performance specifications, but are best efforts arrangements to achieve overall research and development objectives. Included in accounts receivable are billed and unbilled work-in-progress on contracts. Billings in excess of contract revenues earned are recorded as deferred revenue. While the Company's accounting for government contract costs is subject to audit by the sponsoring entity, in the opinion of management, no material adjustments are expected as a result of such audits. Adjustments are recognized in the period made.

Commercial Research and Prototype Agreement Income

The Company also applies the guidance in SAB No. 104 in the evaluation of commercially funded fuel cell research and prototype agreements in order to determine when to properly recognize income. Payments received in connection with commercial research and prototype agreements are deferred and recognized on a straight-line basis over the term of the agreement for service-related payments, and for milestone and prototype delivery payments, if and when achieved, revenue is deferred and recognized on a straight-line basis over the remaining term of the agreement. Under this policy, when revenue qualifies for recognition it will be recorded in the Consolidated Statements of Operations in the line "Funded research and development revenue." The costs associated with research and prototype-producing activities are expensed as incurred. Expenses in an amount equal to revenues recognized are reclassified from "Unfunded research and product development" to "Funded research and product development" in the Consolidated Statements of Operations.

Information regarding MTI Micro's government and commercial funded research and development contracts is as follows:

Contract Name	Expiration [1]
$3,000 thousand DOE [2]	09/30/08
$1,250 thousand NYSERDA [3]	06/30/06
$1,000 thousand Samsung [4]	07/31/07
$418 thousand SAFT[5]	12/31/06
$250 thousand ARL	09/30/05
$210 thousand NIST[6]	06/30/05
$150 thousand Harris[7]	06/25/04
$70 thousand Marine Corps	03/31/05
$15 thousand NCMS[8]	06/30/07

(1) Dates represent expiration of contract, not date of final billing.

(2) The DOE contract is a cost share contract. DOE funding for this contract was suspended during January 2006 and reinstated during May 2007. During 2007, the Company received notifications from the DOE of funding releases totaling $1.0 million and also received an extension of the termination date for the contract from July 31, 2007 to September 30, 2008.

(3) The total contract value for this cost shared contract is $1.3 million consisting of four Phases: Phase I for $500,000 was from March 12, 2002 through September 30, 2003; Phase II for $200,000 was from October 28, 2003 through October 31, 2004; Phase III for $348,000 was from August 23, 2004 through August 31, 2005; and Phase IV for $202,000 which commenced on December 14, 2004 and expired on June 30, 2006. Phases I, II, and III have been completed, while. Phase IV expired before it was completed.

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(4) The Samsung contract is a research and prototype contract. This contract included one up-front payment of $750,000 and two milestone payments of $125,000 each for the delivery of prototypes. The contract was amended on October 22, 2007 as MTI Micro agreed to issue a credit in the amount of the last invoice in recognition of the Company's continuing collaboration with Samsung. Therefore, revenue under this contract totaled $875,000.

(5) The SAFT contract is a fixed price contract. This is a subcontract with SAFT under the U.S. Army CECOM contract. The purchase order received in connection with this subcontract was revised on November 14, 2006 eliminating one milestone. As a result, the contract value was reduced from $470,000 to $418,000 and the expiration date was extended from September 30, 2006 to December 31, 2006.

(6) Represents a fixed price subcontract with CSMP under NIST and includes the original contract for $200,000 and a contract amendment for $10,000.

(7) Represents a fixed price contract that includes the original contract for $200,000, an amendment for $50,000, and a 2005 amendment reducing the contract by $100,000.

(8) This contract was a cost plus catalyst research contract with the National Center for Manufacturing Sciences ("NCMS").

The Company's cost-shared contracts require that MTI Micro conduct research, deliver direct methanol fuel cell prototypes, and other deliverables pursuant to predefined work plans and schedules. For cost-shared contracts spanning multiple years, the following table summarizes as of December 31, 2007 the total expenditures incurred or expected to be incurred by MTI Micro along with the related funded research and development revenue received or expected to be received:

(Dollars in thousands)	**Total Contract Value**	
Contract	**Funded Expense**	**Funded Revenue**
DOE	$ 6,144	$ 3,000
NYSERDA	2,702	1,250

MTI Micro retains ownership of the intellectual property ("IP") generated by MTI Micro under each of its federal government contract and under the contract with Samsung. Each federal government agency retains a government use license and march-in rights if MTI Micro fails to commercialize technology generated under the contract. In addition, under the New York State Energy Research and Development Authority ("NYSERDA") contract, MTI Micro has the right to elect to retain any invention made under the NYSERDA contract within six months of invention. NYSERDA also retains rights to a government use license for New York State and its political subdivisions for any inventions made under the contract. Additionally, MTI Micro agreed to pay NYSERDA a royalty of 5.0% of the sales price of any product sold incorporating IP developed pursuant to the NYSERDA contract. If the product is manufactured by a New York State manufacturer, this royalty is reduced to 1.5%. Total royalties are subject to a cap equal to two times the total contract funds paid by NYSERDA to MTI Micro, and may potentially be reduced to reflect any New York State jobs created by MTI Micro.

Cost of Product Revenue

Cost of product revenue includes material, labor and overhead. Costs incurred in connection with funded research and development arrangements are included in funded research and product development expenses.

Deferred Revenue

Deferred revenue consists of payments received from customers in advance of services performed, completed installation or customer acceptance.

Warranty

The Company records a warranty reserve at the time product revenue is recorded based on a historical rate. The reserve is reviewed during the year and is adjusted, if appropriate, to reflect new product offerings or changes in experience. Actual warranty claims are tracked by product line.

Accounting for Goodwill and Other Intangible Assets

Intangible assets include patents and trade names. Goodwill and other intangible assets are accounted for in accordance with SFAS No. 142, *Goodwill and Other Intangible Assets*. Intangible assets with finite useful lives are amortized over those periods. Indefinite life intangible assets are tested for impairment annually, and will be tested for impairment between annual tests if an event occurs or circumstances change that would indicate that the carrying amount may be impaired. Definite life assets are tested for impairment whenever events or circumstances indicate that a carrying amount of an asset may not be recoverable. An impairment loss would be recognized when the carrying amount of an asset exceeds the estimated undiscounted cash flows used in determining the fair value of the asset. The amount of the impairment loss to be recorded is calculated by the excess of the assets carrying value over its fair value. Fair value is generally determined using a discounted cash flow analysis. Costs related to internally-developed intangible assets are expensed as incurred.

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Accounting for Impairment or Disposal of Long-Lived Assets

The Company accounts for impairment or disposal of long-lived assets in accordance with SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*. This Statement addresses financial accounting and reporting for the impairment or disposal of long-lived assets and specifies how impairment will be measured and how impaired assets will be classified in the consolidated financial statements. On a quarterly basis, the Company analyzes the status of its long-lived assets at each subsidiary for potential impairment. As of December 31, 2007, the Company does not believe that any of its long-lived assets have suffered any type of impairment that would require an adjustment to that asset's recorded value.

Cash and Cash Equivalents

Cash and cash equivalents consist of cash and highly liquid short-term investments with original maturities of less than three months.

Securities Available for Sale

Management determines the appropriate classification of its investments in marketable securities at the time of purchase and reevaluates such determinations at each balance sheet date. Marketable securities for which the Company does not have the intent or ability to hold to maturity are classified as available for sale. Securities available for sale are carried at fair value, with the unrealized gains and losses, net of income taxes, reported as a separate component of stockholders' equity. The Company has had no investments that qualify as trading or held to maturity. Realized gains and losses are included in the caption "Gain (loss) on sale of securities available for sale" in the Consolidated Statements of Operations. The cost of securities sold is based on the specific identification method.

Net (Loss) Income per Common Share

The Company reports net (loss) income per basic and diluted common share in accordance with SFAS No. 128, *Earnings Per Share*, which establishes standards for computing and presenting (loss) income per share. Basic earnings (loss) per common share are computed by dividing net (loss) income by the weighted average number of common shares outstanding during the reporting period. Diluted (loss) income per share reflects the potential dilution, if any, computed by dividing net (loss) income by the combination of dilutive common share equivalents, comprised of shares issuable under outstanding investment rights, warrants and the Company's share-based compensation plans, and the weighted average number of common shares outstanding during the reporting period. Dilutive common share equivalents include the dilutive effect of in-the-money stock options, which are calculated based on the average share price for each period using the treasury stock method. Under the treasury stock method, the exercise price of a stock option, the amount of compensation cost, if any, for future service that the Company has not yet recognized, and the amount of windfall tax benefits that would be recorded in additional paid-in capital, if any, when the stock option is exercised are assumed to be used to repurchase shares in the current period.

Share-Based Payments

The Company has three share-based employee compensation plans and MTI Micro has one share-based employee compensation plan, all of which are described more fully in Note 13, Stock Based Compensation.

In December 2004, the Financial Accounting Standards Board ("FASB") revised SFAS No. 123 ("FAS 123R"), *Share-Based Payment*, which establishes accounting for share-based awards exchanged for employee services and requires companies to expense the estimated fair value of these awards over the requisite employee service period. The accounting provisions of FAS 123R were adopted by the Company as of January 1, 2006. In March 2005, the SEC issued SAB 107, *Share-Based Payment* ("SAB 107") to assist filers by simplifying some of the implementation challenges of FAS 123R. In particular, SAB 107 provides supplemental implementation guidance on FAS 123R, including guidance on valuation methods, classification of compensation expense, inventory capitalization of share-based compensation cost, income tax effects, disclosures in Management's Discussion and Analysis and several other issues. The Company applied the principles of SAB 107 in conjunction with its adoption of FAS 123R.

Under FAS 123R, share-based compensation cost is measured at the grant date, based on the estimated fair value of the award, and is recognized as expense over the employee's requisite service period. The Company has awards with performance conditions, but no awards with market conditions. The Company adopted the provisions of FAS 123R on January 1, 2006, the first day of the Company's fiscal year, using the modified prospective application, which provided for certain changes to the method for valuing share-based compensation. Under the modified prospective application, prior periods were not revised for comparative purposes. The valuation provisions of FAS 123R apply to new awards and to awards that are outstanding on the effective date and subsequently modified or cancelled. Estimated compensation expense for awards outstanding at the effective date will be recognized over the remaining service period using the compensation cost calculated for pro forma disclosure purposes under the original FASB Statement No. 123, *Accounting for Stock-Based Compensation* ("FAS 123").

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In November 2005, the FASB issued Staff Position No. FAS 123(R)-3, *Transition Election Related to Accounting for Tax Effects of Share-Based Payment Awards*. The Company elected to adopt the alternative transition method provided in this FASB Staff Position for calculating the tax effects of share-based compensation pursuant to FAS 123R. This method included a simplified method to establish the beginning balance of the additional paid-in capital pool related to the tax effects of employee share-based compensation, which is available to absorb tax deficiencies recognized subsequent to the adoption of FAS 123R.

Prior to the adoption of FAS 123R, the Company accounted for stock-based awards to employees and directors using the intrinsic value method in accordance with Accounting Principles Board ("APB") Opinion No. 25, *Accounting for Stock Issued to Employees*, and related Interpretations as permitted under FAS 123. Under the intrinsic value method, stock-based compensation was typically only recognized by the Company due to modifications in option provisions, since the exercise price of the Company's and MTI Micro's common stock options granted to employees and directors generally equaled the fair market value of the underlying stock at the date of grant.

Stock-based compensation represents the cost related to stock-based awards granted to employees and directors. The Company measures stock-based compensation cost at grant date based on the estimated fair value of the award, and recognizes the cost as expense on a straight-line basis (net of estimated forfeitures) over the option's requisite service period. The Company estimates the fair value of stock-based awards using a Black-Scholes valuation model. Stock-based compensation expense is recorded in "Selling, general and administrative expenses" and "Unfunded research and product development expenses" in the Consolidated Statements of Operations based on the employees' respective functions.

The Company records deferred tax assets for awards that potentially can result in deductions on the Company's income tax returns based on the amount of compensation cost recognized and the Company's statutory tax rate. Differences between the deferred tax assets recognized for financial reporting purposes and the actual tax deduction reported on the Company's income tax return are recorded in Additional Paid-In Capital (if the tax deduction exceeds the deferred tax asset) or in the Consolidated Statement of Operations (if the deferred tax asset exceeds the tax deduction and no historical pool of windfall tax benefits exists). Since the adoption of FAS123R, no tax benefits have been recognized related to share-based compensation since the Company has incurred net operating losses and has established a full valuation allowanced to offset all potential tax benefits associated with these deferred tax assets. The Company continues to record the fair market value of stock options and warrants granted to non-employees and non-directors in exchange for services in accordance with EITF Issue No. 96-18, *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services*, in the Consolidated Statements of Operations.

Advertising

The costs of advertising are expensed as incurred. Advertising expense was approximately $45, $110, and $102 thousand for the years ended December 31, 2005, 2006, and 2007, respectively.

Concentration of Credit Risk

Financial instruments that subject the Company to concentrations of credit risk principally consist of cash equivalents, marketable securities, trade accounts receivable and unbilled contract costs.

The Company's trade accounts receivable and unbilled contract costs and fees are primarily from sales to commercial customers, the U.S. government and state agencies. The Company does not require collateral and has not historically experienced significant credit losses related to receivables or unbilled contract costs and fees from individual customers or groups of customers in any particular industry or geographic area.

The Company deposits its cash and invests in marketable securities primarily through commercial banks and investment companies. Credit exposure to any one entity is limited by Company policy.

Research and Development Costs

The Company expenses research and development costs as incurred.

Comprehensive (Loss) Income

Comprehensive (loss) income includes net (loss) income, as well as changes in stockholders' equity, other than those resulting from investments by stockholders (i.e., issuance or repurchase of common shares and dividends).

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Effect of Recent Accounting Pronouncements

In December 2007, the FASB issued SFAS No. 141R, *Business Combinations—a replacement of FASB Statement No. 141* ("SFAS No. 141R"), which significantly changes the principles and requirements for how the acquirer of a business recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed, and any noncontrolling interest in the acquiree. The statement also provides guidance for recognizing and measuring the goodwill acquired in the business combination and determines what information to disclose to enable users of the financial statements to evaluate the nature and financial effects of the business combination. SFAS No. 141R is effective prospectively, except for certain retrospective adjustments to deferred tax balances, for fiscal years beginning after December 15, 2008. This statement will be effective for the Company for fiscal year 2009. The Company has not yet determined the impact, if any, of this statement on its Consolidated Financial Statements.

In December 2007, the FASB issued SFAS No. 160, *Noncontrolling Interests in Consolidated Financial Statements—an amendments of ARB No. 51* ("SFAS No. 160"). SFAS No. 160 requires that accounting and reporting for minority interests will be recharacterized as noncontrolling interests and classified as a component of equity. SFAS No. 160 also establishes reporting requirements that provide sufficient disclosures that clearly identify and distinguish between the interests of the parent and the interests of the noncontrolling owners. SFAS No. 160 applies to all entities that prepare consolidated financial statements, except not-for-profit organizations, but will affect only those entities that have an outstanding noncontrolling interest in one or more subsidiaries or that deconsolidate a subsidiary. This statement is effective as of the beginning of an entity's first fiscal year beginning after December 15, 2008. This statement will be effective for the Company for its fiscal year beginning January 1, 2009. Based upon the December 31, 2007 balance sheet, the impact of adopting SFAS No. 160 would be to reclassify from $143 thousand minority interests in consolidated subsidiaries to stockholders' equity as a separate component of stockholders' equity.

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities* ("SFAS No. 159"). SFAS No. 159 provides companies with an option to report selected financial assets and financial liabilities at fair value. Unrealized gains and losses on items for which the fair value option has been elected are reported in earnings at each subsequent reporting date. SFAS No. 159 is effective beginning January 1, 2008. The adoption of the provisions of SFAS No. 159 is not expected to have a material effect on the Company's Consolidated Financial Statements.

In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurements* ("SFAS No. 157"). SFAS No. 157 establishes a common definition for fair value to be applied to United States generally accepted accounting principles guidance requiring use of fair value, establishes a framework for measuring fair value, and expands disclosure about such fair value measurements. This Statement is effective for fiscal years beginning after November 15, 2007. This statement will be effective for the Company for its fiscal year beginning January 1, 2008. The adoption of the provisions of SFAS No. 157 is not expected to have a material effect on the Company's Consolidated Financial Statements.

In September 2006, the FASB issued SFAS No. 158, *Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans, an amendment of FASB Statements No. 87, 88, 106, and 132(R)* ("SFAS No. 158"). Among other items, SFAS No. 158 requires recognition of the over-funded or under-funded status of an entity's defined benefit postretirement plan as an asset or liability in the financial statements, requires the measurement of defined benefit postretirement plan assets and obligations as of the end of the employer's fiscal year, and requires recognition of the funded status of defined benefit postretirement plans in other comprehensive income. This Statement is effective for fiscal years ending after December 15, 2006. Since the Company does not maintain any defined benefit or other postretirement plans, the adoption of this Statement for fiscal year 2007 did not have a material effect on the Company's Consolidated Financial Statements.

In March 2006, the FASB issued SFAS No. 156, *Accounting for Servicing of Financial Assets*—an amendment of FASB *Statement No. 140* ("SFAS No. 156") that provides guidance on accounting for separately recognized servicing assets and servicing liabilities. In accordance with the provisions of SFAS No. 156, separately recognized servicing assets and servicing liabilities must be initially measured at fair value, if practicable. Subsequent to initial recognition, the Company may use either the amortization method or the fair value measurement method to account for servicing assets and servicing liabilities within the scope of this Statement. The adoption of this Statement by the Company in fiscal year 2007 did not have a material effect on the Company's Consolidated Financial Statements.

In February 2006, the FASB issued SFAS No. 155, *Accounting for Certain Hybrid Financial Instruments*—an amendment of FASB *Statements No. 133 and 140* ("SFAS No. 155"), to permit fair value remeasurement for any hybrid financial instrument that contains an embedded derivative that otherwise would require bifurcation in accordance with the provisions of SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities.* The adoption of this Statement by the Company in fiscal year 2007 did not have a material effect on the Company's Consolidated Financial Statements.

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3. Accounts Receivable and Allowance for Doubtful Accounts

Receivables consist of the following at December 31:

(Dollars in thousands)	**2006**	**2007**
U.S. and State Government:		
Amount billable	$ 194	$ 0
Amount billed	9	79
Total U.S. and State Government	203	79
Commercial	1,410	1,290
Total	$ 1,613	$ 1,369

As of December 31, 2006 and 2007, the Company concluded that a reserve for doubtful trade accounts receivable was not considered necessary.

4. Issuance of Stock by Subsidiary

MTI Micro was formed on March 26, 2001 and as of December 31, 2007; the Company owns approximately 96% of MTI Micro’s outstanding common stock.

On December 31, 2005, as a result of an option exchange between the Company and MTI Micro, MTI Micro issued 105,701 shares of its common stock at a price of $2.22 per share to the Company as compensation for minority stockholder benefit in connection with the transaction. Additionally, on December 31, 2005, MTI Micro issued 1,103,604 shares of its common stock at a price of $2.22 per share to the Company in connection with the conversion of its $2,450 thousand loan receivable to equity.

On December 31, 2006, MTI Micro issued 3,772,727 shares of its common stock at a price of $1.10 per share to the Company in connection with the conversion of its $4,150 thousand loan receivable to equity; on December 1, 2006, MTI Micro issued 739 shares of its common stock at a price of $1.61 per share to the Company as compensation for the minority stockholder benefit in connection with the Company issuing

Company options to MTI Micro employees; on November 11, 2006, MTI Micro issued 1,960,506 shares of its common stock at a price of $1.06 per share to the Company in connection with the transfer of $2,070 thousand worth of Plug Power common stock to MTI Micro; on September 30, 2006, MTI Micro issued 2,574,627 shares of its common stock at a price of $1.34 per share to the Company in connection with the conversion of its $3,450 thousand loan receivable to equity; on September 1, 2006, MTI Micro issued 56,055 shares of its common stock at a price of $3.10 per share to the Company as compensation for the minority stockholder benefit in connection with the Company issuing Company options to MTI Micro employees; on May 27, 2006, MTI Micro issued 50,158 shares of its common stock at a price of $2.32 to the Company as compensation for the minority stockholder benefit in connection with the Company issuing Company options to MTI Micro employees; between April 11 and April 18, 2006, MTI Micro issued 1,662,400 shares of its common stock at a price of $2.50 per share to the Company in connection with the transfer of $4,156 thousand worth of Plug Power common stock to MTI Micro; and on March 31, 2006, MTI Micro issued 1,400,000 shares of its common stock at a price of $2.50 per share to the Company in connection with the conversion of its $3,500 thousand loan receivable to equity.

Between October 10 and October 25, 2007, MTI Micro issued 4,050,488 shares of its common stock at a price between $0.37 and $0.41 per share to the Company in connection with the transfer of $2,808 thousand worth of Plug Power common stock to MTI Micro; on November 16, 2007, MTI Micro issued 1,630,339 shares of its common stock at a price of $0.33 per share to the Company in connection with the transfer of $1,113 thousand worth of Plug Power common stock to MTI Micro; on September 1, 2007, MTI Micro issued 35,625 shares of its common stock at a price of $0.62 per share to the Company as compensation for the minority stockholder benefit in connection with the Company issuing Company options to MTI Micro employees; on September 30, 2007, MTI Micro issued 2,740,715 shares of its common stock at a price of $0.69 per share to the Company in connection with the conversion of its $1,900 thousand loan receivable to equity; on June 1, 2007, MTI Micro issued 8,653 shares of its common stock at a price of $0.94 per share to the Company as compensation for the minority stockholder benefit in connection with the Company issuing Company options to MTI Micro employees; on June 30, 2007, MTI Micro issued 6,083,334 shares of its common stock at a price of $0.60 per share to the Company in connection with the conversion of its $3,650 thousand loan receivable to equity; on March 1, 2007, MTI Micro issued 682 shares of its common stock at a price of $0.98 per share to the Company as compensation for the minority stockholder benefit in connection with the Company issuing Company options to MTI Micro employees; and on March 31, 2007, MTI Micro issued 4,243,721 shares of its common stock at a price of $0.84 per share to the Company in connection with the conversion of its $3,550 thousand loan receivable to equity.

The decrease in the Company’s paid-in-capital of $301, $1,284, and $521 thousand in 2005, 2006, and 2007, respectively, represents the changes in the Company’s equity investment in MTI Micro, which resulted from the anti-dilutive impact of the Company’s investments

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into MTI Micro stock.

5. Inventories

Inventories, net consist of the following at December 31:

(Dollars in thousands)	2006	2007
Finished goods	$ 279	$ 467
Work in process	238	168
Raw materials, net	699	738
	$ 1,216	$ 1,373

6. Property, Plant and Equipment

Property, plant and equipment consist of the following at December 31:

(Dollars in thousands)	2006	2007
Leasehold improvements	$ 1,213	$ 1,213
Computers and related software	2,186	2,241
Machinery and equipment	3,625	3,895
Office furniture and fixtures	303	303
	7,327	7,652
Less accumulated depreciation	4,401	5,493
	$ 2,926	$ 2,159

Depreciation expense was $1,253, $1,101, and $1,129 thousand for 2005, 2006, and 2007, respectively. Repairs and maintenance expense was $105, $75, and $82 thousand for 2005, 2006, and 2007, respectively.

7. Securities Available for Sale

Securities available for sale are classified as current assets and accumulated net unrealized gains (losses) are charged to other comprehensive income (loss).

The principal components of the Company's securities available for sale consist of the following at:

(Dollars in thousands, except stock price and share data)

				Quoted Market Price			
Security	**Book Basis**	**Unrealized Gain**	**Recorded Fair Value**	**Per NASDAQ**	**Ownership**		**Shares**
December 31, 2006							
Plug Power	$ 4,602	$ 5,473	$ 10,075	$ 3.89	2.99	%	2,589,936
December 31, 2007							
Plug Power	$ 2,021	$ 2,471	$ 4,492	$ 3.95	1.29	%	1,137,166

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The book basis roll forward of Plug Power securities as of December 31 is as follows:

(Dollars in thousands)	2006	2007
Securities available for sale, beginning of period	$ 6,562	$ 10,075
Sale of shares	(1,960)	(8,054)
Securities book basis	4,602	2,021
Unrealized gain on securities available for sale	5,473	2,471
Securities available for sale, end of period	$ 10,075	$ 4,492

Accumulated unrealized gains related to securities available for sale for each of the years ended December 31 are as follows:

(Dollars in thousands)	2006	2007
Accumulated unrealized gains	$ 5,473	$ 2,471
Accumulated deferred tax expense on unrealized gains	(4,489)	(1,971)
Accumulated net unrealized gains	$ 984	$ 500

Realized gains related to Plug Power securities available for sale sold during each of the years ended December 31 are as follows:

(Dollars in thousands, except shares)	2006	2007
Shares sold	1,103,500	1,452,770
Proceeds	$ 6,249	$ 5,130
Total net gain on sales	$ 4,289	$ 2,549

The Company regularly reviews its securities available for sale to determine if any declines in value of those securities available for sale are other than temporary. The Company assesses whether declines in the value of its securities in publicly traded companies, measured by comparison of the current market price of the securities to the carrying value of the Company's securities, are considered to be other than temporary based on factors that include the length of time carrying value exceeds fair market value, the Company's assessment of the financial condition and the near term prospects of the companies and the Company's intent with respect to the securities.

8. Income Taxes

Income tax (expense) benefit for each of the years ended December 31 consists of the following:

(Dollars in thousands)	2005	2006	2007
Operations before minority interest			
Federal	$ —	$ —	$ —
State	54	(5)	(30)

Deferred	(1,641)	(1,890)	(2,518)
Total	$ (1,587)	$ (1,895)	$ (2,548)

Income tax benefit (expense) allocated directly to stockholders' equity for each of the years ended December 31 is as follows:

(Dollars in thousands)	2005	2006	2007
Change in unrealized (gain) loss on securities available for sale:			
Deferred tax benefit (expense)	$ 1,448	$ 1,285	$ (27)
Valuation allowance (expense)	(1,448)	(1,285)	27
Tax effect of reclassification adjustment for gains included in net income (loss)	3,293	1,913	2,518
Expenses for employee stock options recognized differently for financial reporting/tax purposes:			
Federal tax benefit	87	—	—
Valuation allowance (expense)	(87)	—	—
	$ 3,293	$ 1,913	$ 2,518

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The significant components of deferred income tax (expense) benefit from operations before minority interest for each of the years ended December 31 consists of the following:

(Dollars in thousands)	2005	2006	2007
Deferred tax benefit (expense)	$ 238	$ 1,158	$ 1,181
Net operating loss carry forward	5,673	3,983	3,069
Valuation allowance	(4,259)	(5,118)	(4,250)
Disproportionate tax effect of reclassification adjustment for gains included in net income (loss)	(3,293)	(1,913)	(2,518)
	$ (1,641)	$ (1,890)	$ (2,518)

The Company's effective income tax rate from operations before minority interest differed from the Federal statutory rate for each of the years ended December 31 is as follows:

	2005	2006	2007
Federal statutory tax rate	34 %	34 %	34 %
State taxes, net of federal tax effect	3	3	1
Change in valuation allowance	(29)	(37)	(56)
Disproportionate tax effect of reclassification adjustment for gains included in net income (loss)	(19)	(13)	(28)
Permanent tax difference on derivative valuation	—	—	16
Other, net	—	(2)	—
Tax Rate	(11)%	(15)%	(33)%

Pre-tax loss before minority interests was $14,949, $12,980, and $7,609 thousand for 2005, 2006, and 2007, respectively. The deferred tax assets and liabilities as of December 31 consist of the following tax effects relating to temporary differences and carry forwards:

(Dollars in thousands)	2006	2007
Current deferred tax (liabilities) assets:		
Inventory valuation	$ 60	$ 73
Inventory capitalization	14	13
Securities available for sale	(3,039)	(1,362)
Vacation pay	161	147
Warranty and other sale obligations	8	29
Other reserves and accruals	58	56
	(2,738)	(1,044)

Valuation allowance	(256)	(300)
Net current deferred tax liabilities	$ (2,994)	$ (1,344)
Noncurrent deferred tax assets (liabilities):		
Net operating loss	$ 19,661	$ 21,037
Property, plant and equipment	(239)	27
Stock options	1,379	1,800
Other	239	—
Research and development tax credit	459	459
Alternative minimum tax credit	54	54
	21,553	23,377

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Valuation allowance	(18,559)	(22,033)
Non-current net deferred tax assets	$ 2,994	$ 1,344

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The valuation allowance at December 31, 2006 and 2007 was $18,815 and $22,333 thousand, respectively. The net change in the valuation allowance was $7,892 thousand in 2006 and $3,518 thousand in 2007. The valuation allowance at December 31, 2006 and 2007 reflects the estimate that it is more likely than not that the net deferred tax assets may not be realized. In addition to changes in valuation allowance of $4,250 thousand reflected in continuing operations, the valuation allowance was increased by $1,201 thousand reflected in stockholders' equity and decreased by $1,933 thousand as a result of the adoption of FIN 48.

At December 31, 2007, the Company has unused Federal net operating loss carry forwards of approximately $53,918 thousand. Of these carry forwards, $1,325 thousand represents windfall tax benefits from stock option transactions, the tax effect of which are not included in the Company's net deferred tax assets. The Federal net operating loss carry forwards, if unused, will begin to expire in 2010. As of December 31, 2007, the Company has approximately $459 thousand of research and development tax credit carry forwards, which begin to expire in 2018, and approximately $54 thousand of alternative minimum tax credit carry forwards, which have no expiration date. Deferred tax assets and liabilities are determined based on the temporary differences between the financial statement and tax bases of assets and liabilities as measured by the enacted tax rates

The Company adopted the provisions of FIN 48 on January 1, 2007, the first day of its 2007 fiscal year. As a result of the implementation of FIN 48, the Company recorded a $106 thousand increase in the net liability for uncertain tax positions, which was recorded as an adjustment to the Company's opening balance of retained earnings on January 1, 2007. Additionally, the same tax position that triggered the Company's FIN 48 adoption charge caused the Company to reclassify $80 thousand from current income taxes payable to non-current liabilities for uncertain tax positions.

A reconciliation of the beginning and ending amount of unrecognized tax benefits for 2007 is as follows:

(Dollars in thousands)	
Balance as of January 1, 2007	$ 2,024
Additions for tax positions related to the current year	—
Additions for tax positions of prior years	20
Reductions for tax positions of prior years	—
Settlements	—
Balance as of December 31, 2007	$ 2,044

In future periods, if $1,836 thousand of these unrecognized benefits become supportable, the Company may not recognize a change in its effective rate as long as it remains in a full valuation allowance position, $208 thousand of these unrecognized tax benefits would affect the Company's effective tax rate if recognized. Included in the balance of unrecognized tax benefits at January 1, 2007 is $239 thousand related to tax positions for which it is reasonably possible that the total amounts could significantly change during the next twelve months. This amount

represents unrecognized tax benefits comprising potential recognition for tax purposes of losses in a partnership in which the Company held a minority stake. In accordance with the Company's accounting policy, it recognizes interest and penalties related to uncertain tax positions as a component of tax expense. This policy did not change as a result of the adoption of FIN 48. As of January 1, 2007, accrued interest included in Uncertain Tax Position Liability totaled $34 thousand. During the year ended December 31, 2007, the Company recognized $15 thousand in potential interest expense on uncertain tax positions, and the Company's Consolidated Balance Sheet as of that date includes total interest of $49 thousand associated with these positions.

The Company files income tax returns, including returns for its subsidiaries, with federal and state jurisdictions. The Company is no longer subject to IRS examination for its federal returns for any periods prior to 2003, although carryforward attributes that were generated prior to 2004 may still be adjusted upon examination by the IRS if they either have been or will be used in a future period. The Company has an ongoing tax examination by New York State for the years 2002 through 2004. The Company does not believe that the net outcome of this examination will have a material impact on its financial statements.

9. Accrued Liabilities

Accrued liabilities consist of the following at December 31:

(Dollars in thousands)	**2006**	**2007**
Salaries, wages and related expenses	$ 781	$ 937
Acquisition and disposition costs	363	363
Legal and professional fees	311	230
Warranty and other sale obligations	19	72
Commissions	139	95
Other	857	424
	$ 2,470	$ 2,121

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10. Stockholders' Equity

Common Shares

Changes in common shares are as follows for the years ended December 31:

	2005	2006	2007
Balance, beginning	38,650,949	38,965,937	46,084,678
Issuance of shares for stock option exercises	148,575	719,791	85,946
Issuance of shares for private placement shares	66,413	—	—
Issuance of shares for restricted and unrestricted stock grants	100,000	76,080	55,000
Issuance of shares for capital raise	—	6,055,556	—
Issuance of shares for anti-dilution penalty	—	267,314	—
Forfeiture of restricted stock grants	—	—	(5,000)
Balance, ending	38,965,937	46,084,678	46,220,624

Treasury Stock

Changes in treasury stock are as follows for the years ended December 31:

	2005	2006	2007
Balance, beginning	8,040,736	8,040,736	8,040,736
Balance, ending	8,040,736	8,040,736	8,040,736

Sale of Common Stock

Capital Raise: On December 15, 2006, the Company entered into agreements with certain investors to sell 6,055,556 shares of common stock and warrants to purchase 3,027,778 shares of common stock for an aggregate purchase price of $10,900 thousand. The common stock and warrants were sold in units, with each unit consisting of 100 shares of common stock and a warrant to purchase 50 shares of common stock, at an exercise price of $2.27 per share. Each non-certificated unit was sold at a negotiated price of $180.00. The shares of common stock and warrants are immediately separable and were issued separately (see Warrants Issued below). The common stock, the warrants and shares issuable upon exercise of the warrants are registered with the SEC on the Company's filed and effective registration statement.

In connection with the 2006 capital raise, in December 2006, the Company paid Rodman & Renshaw, LLC placement fees, recorded in equity against the proceeds of the capital raise, of $570 thousand.

Private Placement: The Company entered into a financing transaction with Fletcher on January 29, 2004 and amended the terms of such transaction on May 4, 2004. Fletcher purchased 2,680,671 shares of the Company's common stock for $18,000 thousand pursuant to such financing transaction – 1,418,842 shares at $7.048 per share and 1,261,829 shares at $6.34 per share. In addition, Fletcher had the right to purchase an additional $20,000 thousand of the Company's common stock, on one or more occasions, at a price of $6.023 (adjusted from $6.34) per share at any time prior to December 31, 2006. Fletcher had the right to receive Company shares without payment upon the occurrence of certain events, including but not limited to, failing to register for resale with the SEC shares purchased by Fletcher on the agreed upon time table, a restatement of the Company's financial statements, change of control of the Company and issuance of securities at a price below Fletcher's purchase price. The Company has filed registration statements covering all of the shares purchased by Fletcher.

The Company filed a registration statement on January 6, 2005 covering the resale of 1,261,829 shares of the Company's common stock purchased by Fletcher on December 22, 2004. The Company failed to meet its contractual obligation with Fletcher to have such registration statement declared effective by March 22, 2005 and therefore under the terms of the Fletcher agreement the Company was required to issue additional shares of common stock to Fletcher and the exercise price for the Fletcher additional investment rights has been reduced to $6.023 per share. The Company was required to issue a number of shares of common stock that resulted in Fletcher having effectively made its December 2004 investment at a price per share that was lower than the actual price paid. The Company refers to this reduced exercise price as the "deemed exercise price." More specifically, for each month during which the Company failed to satisfy the registration requirement, the deemed exercise price was reduced by $0.317 per share. As a consequence, on April 20, 2005 the Company issued 66,413 shares of common stock to Fletcher without any additional payment required by Fletcher, representing a deemed exercise price for Fletcher's December 2004 investment of $6.023 per share.

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In addition, since the Company was required to file a registration statement covering the resale of any such additional shares issued to Fletcher, the Company amended the registration statement initially filed in January 2005 to include the additional 66,413 shares of common stock. That registration statement, covering the resale of 1,328,242 shares of common stock, was declared effective by the SEC on April 21, 2005.

Dilutive Issuances: If, after December 31, 2004 and ending December 31, 2006, the Company issued any equity securities at a price below $7.048 as it relates to the initial $10,000 thousand investment and $6.34 as it relates to any additional investments which have been made, the exercise price for the additional investment rights would be adjusted to provide Fletcher "weighted average" anti-dilution protection and the Company would have to issue to Fletcher a number of additional shares such that all prior investments will have been effectively made at such adjusted exercise price.

On December 7, 2006, Fletcher agreed to lower the dilutive issuance provision by 25% of the original calculation for the remainder of the provision's original term and in connection with the issuance of common stock in the Company's December 2006 capital raise, the Company issued Fletcher 267,314 of its common shares. Through a release dated January 5, 2007, between the Company and Fletcher, the Company is not required to register these shares with the SEC since these shares may be sold by Fletcher pursuant to Rule 144(k) under the Securities Act of 1933, as amended.

The Company does not presently have any outstanding agreements with Fletcher concerning additional investment rights or dilutive stock issuance.

Warrants Issued

On December 20, 2006, the Company issued warrants to investors to purchase 3,027,778 shares of the Company's common stock at an exercise price of $2.27 per share. These warrants will be fair valued by the Company until expiration or exercise of the warrants. The warrants became exercisable on June 20, 2007 and expire on December 19, 2011.

Reservation of Shares

The Company has reserved common shares for future issuance as follows as of December 31, 2007:

Stock options outstanding	6,213,566
Stock options available for issuance	1,265,733
Warrants outstanding	3,027,778
Number of common shares reserved	10,507,077

Completion of Option Exchange with MTI Micro Option Holders

On December 30, 2005, the Company issued options to acquire 1,021,213 shares of MTI common stock, par value $0.01 per share, to certain employees, officers and directors of MTI and MTI Micro who previously held MTI Micro options (the "Optionees"). The options have an exercise price per share of $2.80 (the closing price of the Company's common stock on December 30, 2005). The Company issued the options pursuant to a November 28, 2005 stock option exchange offer. MTI Micro options outstanding for a purchase of a total of 2,392,947 shares of MTI Micro common stock, par value $0.01 per share, were tendered by the Optionees and then cancelled by MTI Micro as a result of this exchange. Each option is exercisable for one share of MTI common stock. The exchange rate was one option for each two MTI Micro options, rounded down to the nearest whole option, or if an individual had an MTI Micro option balance in excess of 150,000 options, then at a rate of one option for each four MTI Micro options in excess of 150,000 options. The exchange was accounted for in accordance with EITF 00-23 Issue 1, *Issues Related to the Accounting for Stock Compensation under APB Opinion No. 25 and FASB Interpretation No. 44* and no compensation expense was recorded.

11. Retirement Plan

The Company maintains a voluntary savings and retirement plan under Internal Revenue Code Section 401(k) covering substantially all employees. Employees must complete six months of service and have attained the age of twenty-one prior to becoming eligible for participation in the plan. The Company plan allows eligible employees to contribute a percentage of their compensation on a pre-tax basis and the Company matches employee contributions dollar for dollar up to a discretionary amount, currently 4%, of the employee's salary, subject to annual tax deduction limitations. Company matching contributions vest at a rate of 25% annually for each year of service completed. Company matching contributions were $272, $269, and $283 thousand for 2005, 2006, and 2007, respectively. The Company may also make additional discretionary contributions in amounts as determined by management and the Board of Directors. There were no additional discretionary contributions by the Company for the years 2005, 2006, or 2007.

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12. Earnings per Share

The following table sets forth the reconciliation of the numerators and denominators of the basic and diluted per share computations for continuing operations for the years ended December 31:

(Dollars in thousands, except shares)	2005	2006	2007
Numerator:			
Net loss	$ (15,094)	$ (13,667)	$ (9,575)
Denominator:			
Basic EPS:			
Common shares outstanding, beginning of period	30,610,213	30,925,201	38,043,942
Weighted average common shares issued during the period	127,395	700,267	72,887
Weighted average restricted shares forfeited during the period	—	—	(2,877)
Less Weighted average non-vested restricted stock	—	(3,123)	(5,575)
Denominator for basic earnings per common shares –			
Weighted average common shares	30,737,608	31,622,345	38,108,377
Diluted EPS:			
Common shares outstanding, beginning of period	30,610,213	30,925,201	38,043,942
Weighted average common shares issued during the period	127,395	700,267	72,887
Weighted average restricted shares forfeited during the period	—	—	(2,877)
Less Weighted average non-vested restricted stock due to anti-dilutive effect	—	(3,123)	(5,575)
Denominator for diluted earnings per common shares –			
Weighted average common shares	30,737,608	31,622,345	38,108,377

Not included in the computation of earnings per share-assuming dilution for the year ended December 31, 2005 were options to purchase 5,041,242 shares of the Company's common stock, additional investment rights to purchase approximately 3,320,604 shares of the Company's common stock, warrants to purchase 28,377 shares of the Company's common stock and options to purchase 78,461 shares of MTI Micro's common stock. These potentially dilutive items were excluded because the Company incurred a loss for this period and their inclusion would be anti-dilutive. The additional investment rights expired on December 31, 2006.

Not included in the computation of earnings per share-assuming dilution for the year ended December 31, 2006 were options to purchase 5,509,194 shares of the Company's common stock, 5,000 unvested restricted shares of the Company's common stock and options to purchase 33,668 shares of MTI Micro's common stock. These potentially dilutive items were excluded because the Company incurred a loss for this period and their inclusion would be anti-dilutive. The MTI options expire between January 4, 2007 and November 9, 2016, while the MTI Micro options expire between September 29, 2012 and September 18, 2015. The Company also has 3,027,778 warrants outstanding as of December 31, 2006; however, these were excluded in the computation earnings per share because they were not eligible to be exercised until June 20, 2007.

Not included in the computation of earnings per share-assuming dilution for the year ended December 31, 2007 were options to purchase 6,213,566 shares of the Company's common stock, warrants to purchase 3,027,778 shares of the Company's stock, 5,000 unvested restricted shares of the Company's common stock and options to purchase 22,668 shares of MTI Micro's common stock. These potentially dilutive items were excluded because the Company incurred a loss for this period and their inclusion would be anti-dilutive.

13. Stock Based Compensation

MTI Option Plans

Stock-based incentive awards are provided to employees and directors under the terms of the Company's 1996 Stock Incentive Plan ("1996 Plan"), 1999 Employee Stock Incentive Plan ("1999 Plan") and 2006 Equity Incentive Plan ("2006 Plan"), the (collectively, the "Plans"). Awards under the Plans have generally included at-the-money options and restricted stock grants. MTI Micro also issued awards under the MTI MicroFuel Cells Inc. 2001 Employee, Director and Consultant Stock Option Plan ("2001 MTI Micro Plan"). During 2005, MTI Micro ceased making grants under the 2001 MTI Micro Plan and determined that it would make no new awards under this plan in the future.

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The 1996 Plan was approved by stockholders during December 1996. The 1996 Plan provided an initial aggregate number of 500,000 shares of common stock to be awarded or issued. The number of shares available to be awarded under the 1996 Plan and awards outstanding were adjusted for stock splits and rights offerings. The number of shares which may be awarded under the 1996 Plan was 3,746,813 during 2005, 2006, and 2007. Under the 1996 Plan, the Board of Directors was authorized to issue stock options, stock appreciation rights, restricted stock, and other stock-based incentives to officers, employees and others.

The 1999 Plan was adopted by the Company's Board of Directors and approved by stockholders on March 18, 1999. The 1999 Plan provides that an initial aggregate number of 1,000,000 shares of common stock may be awarded or issued. The number of shares which may be awarded under the 1999 Plan and awards outstanding have been adjusted for stock splits, and during 2005, 2006, and 2007, the total number of shares which may be awarded under the 1999 Plan was 4,500,000 shares. Under the 1999 Plan, the Board of Directors is authorized to issue stock-based awards to officers, employees and others.

The 2006 Plan was adopted by the Company's Board of Directors on March 16, 2006 and approved by stockholders on May 18, 2006. The 2006 Plan provides that an initial aggregate number of 2,000,000 shares of common stock may be awarded or issued. The number of shares which may be awarded under the 2006 Plan and awards outstanding will be adjusted for stock splits and other similar events. Under the 2006 Plan, the Board of Directors is authorized to issue stock options, stock appreciation rights, restricted stock, and other stock-based incentives to officers, employees and others.

Stock-based compensation expense for the year ended December 31, 2007 was generated from stock options and restricted stock grants. Stock options are awards which allow holders to purchase shares of the Company's common stock at a fixed price. Stock options issued to employees generally vest 25% per year beginning one year after grant. Options issued to non-employee members of the MTI Board of Directors generally vest upon grant. Certain options granted may be fully or partially exercisable immediately, may vest on other than a four year schedule or vest upon attainment of specific performance criteria. Restricted stock awards generally vest one year after the date of grant; however, certain awards may vest immediately or vest upon attainment of specific performance criteria. Option exercise prices are generally equivalent to the closing market value price of the Company's common stock on the date of grant. Unexercised options generally terminate either seven or ten years after date of grant.

Share-Based Compensation Information under FAS 123 and APB 25

Prior to January 1, 2006, the Company had elected to follow APB Opinion No. 25, *Accounting for Stock Issued to Employees ("APB Opinion No. 25")* and related Interpretations in accounting for employee stock-based compensation and to provide the disclosures required under FAS 123. APB Opinion No. 25 requires no recognition of compensation expense for most of the stock-based compensation arrangements provided by

the Company, namely, broad-based employee option grants where the exercise price is equal to market value at the date of grant. However, APB Opinion No. 25 requires recognition of compensation expense for variable award plans over the vesting periods of such plans, based upon the then-current market values of the underlying stock. In contrast, FAS 123 requires recognition of compensation expense for grants of stock, stock options, and other equity instruments, over the vesting periods of such grants, based on the estimated grant-date fair values of those grants. Under the intrinsic-value-based method, compensation cost is the excess, if any, of the market value of the stock at grant over the amount an employee must pay to acquire the stock.

During 2005, the Company awarded 50,000 shares each of common stock and restricted common stock which vested over a one-year period. Presented below is a summary of compensation expense related to the intrinsic value of performance-based, time-based and unrestricted awards, which is included in the summary of the Company's compensation expense under all share-based awards, for the Plans which was recorded in the financial statement line "Selling, general and administrative expenses" for the year ended December 31:

(Dollars in thousands)	**2005**
Stock	$ 124
Restricted stock	45
Stock options	633
Total stock-based compensation expense	$ 802

The 2005 stock-based compensation expense included $438 thousand of stock-based compensation expense recorded as a result of accelerating the vesting and/or extending the time to exercise options after termination but not in excess of the original contractual life of the options. These changes were made in connection with employment, termination and change in status (employee to consultant) arrangements.

Pro Forma Information under FAS 123 for Periods Prior to Fiscal 2006

Prior to adopting the provisions of FAS 123R, the Company recorded estimated compensation expense for employee stock options based upon their intrinsic value on the date of grant pursuant to APB Opinion No. 25 and provided the required pro forma

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disclosures of FAS 123. Because the Company generally established the exercise price based on the fair market value of the Company's stock at the date of grant, the stock options generally had no intrinsic value upon grant, and therefore compensation expense was recorded primarily for grant modifications prior to adopting FAS 123R. Each accounting period, the Company reported the potential dilutive impact of stock options in its diluted earnings per common share using the treasury-stock method. Out-of-the-money stock options (i.e., the average stock price during the period was below the strike price of the stock option) were not included in diluted earnings per common share as their effect was anti-dilutive.

For purposes of pro forma disclosures under FAS 123 for the year ended December 31, 2005, the estimated fair value of the stock options was assumed to be amortized to expense over the stock options' vesting periods. The pro forma effects of recognizing estimated compensation expense under the fair value method on net (loss) and (loss) per common share for the year ended December 31 was as follows:

(Dollars in thousands, except per share data)	**2005**
Net loss, as reported	$ (15,094)
Add: Total stock-based employee compensation expense already recorded in financial statements, net of related tax effects	1,003
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards, net of related tax effects	(2,963)
Pro forma net loss	$ (17,054)
Loss per Share:	
Basic and diluted - as reported	$ (0.49)
Basic and diluted - pro forma	$ (0.55)

	2005
Fair value of each option granted	$ 2.85
Number of options granted	1,467,880
Fair value of all options granted	$ 4,187,301

The fair value of options granted, which is amortized to expense over the option vesting period in determining the pro forma impact, is estimated on the date of grant using the Black-Scholes Option Pricing model with the following weighted average assumptions for each of the year ended December 31:

	2005	
Expected life of option	5	years

Risk-free interest rate	4.28	%
Expected volatility of the Company's stock	77.3	%
Expected dividend yield on the Company's stock	0	%

The weighted average grant-date fair value of stock awarded and vested for each of the year ended December 31 is as follows:

	2005
Fair value of each share granted	$ 2.49
Number of shares granted	50,000
Fair value of all shares granted	$ 124,500

The weighted average grant-date fair value of restricted stock awarded for each of the year ended December 31 is as follows:

	2005
Fair value of each restricted share granted	$ 2.49
Number of restricted shares granted	50,000
Fair value of all restricted shares granted	$ 124,500

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Share-Based Compensation Information under FAS 123R

As discussed in Note 2 “Significant Accounting Policies,” effective January 1, 2006, the Company adopted the fair value recognition provisions for stock-based awards granted to employees using the modified prospective application method provided by FAS 123R. Stock-based compensation cost is measured at grant date, based on the fair value of the award, and is recognized as expense over the employee requisite service period.

The Company estimates the fair value of stock options using a Black-Scholes valuation model consistent with the provisions of FAS 123R and SAB 107. Key inputs and assumptions used to estimate the fair value of stock options include the grant price of the award, the expected option term, volatility of the Company’s stock, an appropriate risk-free rate, and the Company’s dividend yield. Estimates of fair value are not intended to predict actual future events or the value ultimately realized by employees who receive equity awards, and subsequent events are not indicative of the reasonableness of the original estimates of fair value made by the Company.

The fair value of each stock option grant was estimated at the date of grant using a Black-Scholes Option Pricing model. The following table presents the weighted-average assumptions used for options granted:

	2006		2007	
Option term (years) [A]	4.26		3.61	
Volatility [B]	73.14	%	72.76	%
Risk-free interest rate range [C]	4.60 - 5.29	%	3.23 - 5.04	%
Dividend yield [D]	0	%	0	%
Weighted-average fair value per option granted	$ 2.51		$ 0.77	

[A] The option term is the number of years that the Company estimates, based upon historical experience and the full contractual term of the options outstanding, those options will be outstanding prior to exercise.

[B] The expected stock price volatility as of the grant date is based on the historical volatility of the Company’s common stock price over a period corresponding to the expected term of the option, adjusted for activity that is not expected to occur in the future.

[C] The risk-free interest rate is the implied yield on U.S. Treasury zero coupon issues with a remaining term equal to the expected term used as the assumption in the model.

[D] The dividend yield assumption is based on the Company’s history and expectation of future dividend payouts, which may be subject to substantial change in the future.

Share-based compensation expense recognized in the Consolidated Statements of Operations is based on awards ultimately expected to vest, therefore, awards are reduced for estimated forfeitures. FAS 123R requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

Stock-Based Compensation Expense – All Accounting Treatments

Total share-based compensation expense, related to all of the Company's share-based awards, recognized for the years ended December 31, was comprised as follows:

(Dollars in thousands, except EPS)	**2005**	**2006**	**2007**
Unfunded research and product development	$ —	$ 512	$ 216
Selling, general and administrative[B]	1,003	1,894	1,342
Share-based compensation expense before taxes	1,003	2,406	1,558
Related income tax benefits [A]	—	—	—
Share-based compensation expense, net of taxes	$ 1,003	$ 2,406	$ 1,558
Impact on basic and diluted EPS		$ (0.08)	$ (0.04)

[A]Income tax effect is zero due to the Company maintaining a full valuation allowance.

[B] Compensation expense for the year ended December 31, 2005 was calculated under APB 25.

As of January 1, 2006, the adoption of FAS 123R resulted in the elimination of unearned compensation related to restricted stock (contra equity account) against additional paid-in capital totaling approximately $80 thousand. Total unrecognized compensation costs related to non-vested awards as of December 31, 2007 is $1,595 thousand and is expected to be recognized over a weighted-average vesting period of approximately 1.31 years.

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Presented below is a summary of the Company's stock option plans' activity for the years ended December 31:

	2005	2006	2007
Shares under option, beginning	3,752,063	5,041,242	5,509,194
Granted	1,467,880	1,564,750	1,853,750
Exercised	(148,575)	(719,791)	(85,946)
Canceled/Forfeited	(10,126)	(175,099)	(520,921)
Expired	(20,000)	(201,908)	(542,511)
Shares under option, ending	5,041,242	5,509,194	6,213,566
Options exercisable	4,197,029	4,053,286	4,628,348
Remaining shares available for granting of options	1,363,214	2,096,159	1,265,733

The weighted average exercise price is as follows for each of the years ended December 31:

	2005	2006	2007
Shares under option, beginning	$ 4.06	$ 3.76	$ 4.04
Granted	$ 2.85	$ 4.04	$ 1.37
Exercised	$ 2.20	$ 1.65	$ 0.70
Canceled/Forfeited	$ 4.26	$ 4.29	$ 3.55
Expired	$ 6.17	$ 5.30	$ 5.13
Shares under option, ending	$ 3.76	$ 4.04	$ 3.24
Options exercisable, ending	$ 3.85	$ 4.12	$ 3.55

The following table summarizes information for options outstanding and exercisable at December 31, 2007:

Outstanding Options				Options Exercisable	
Exercise Price Range	Number	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price	Number	Weighted Average Exercise Price
$ 0.76 - $ 1.13	154,000	4.9	$ 0.88	75,000	$ 0.92
$ 1.23 - $ 1.78	1,982,700	5.6	$1.40	1,035,825	$1.46
$ 1.91 - $ 2.83	1,163,199	4.8	$2.58	1,113,254	$2.58
$ 2.86 - $ 4.17	1,308,667	4.9	$ 3.63	1,214,144	$ 3.63

$ 4.30	- $ 6.28	1,402,500	4.9	$ 5.20	987,625	$ 5.52
$ 9.25	- $ 12.97	202,500	2.1	$ 10.55	202,500	$ 10.55
		6,213,566	5.0	$ 3.24	4,628,348	$ 3.55

The aggregate intrinsic value (i.e. the difference between the closing stock price and the price to be paid by the option holder to exercise the option) is zero for both the Company's outstanding and exercisable options as of December 31, 2007. The amounts are based on the Company's closing stock price of $0.75 as of December 31, 2007.

The total intrinsic value of options exercised during the years ended December 31, 2005, 2006, and 2007 was $217, $1,307, and $44 thousand, respectively. The total cash received by the Company as a result of stock option exercises for the year ended December 31, 2007 was approximately $60 thousand. In connection with these exercises, there was no tax benefit or expense realized by the Company for the year ended December 31, 2007. The Company settles employee stock option exercises with newly issued shares of Company common stock.

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The number and weighted average grant-date fair value of unvested restricted stock for the period ended December 31, 2007 is as follows:

	Number	Weighted Average Grant-Date Fair Value
Unvested restricted stock, beginning	5,000	$ 4.05
Granted	55,000	1.34
Forfeited	(5,000)	4.05
Vested	(50,000)	1.34
Unvested restricted stock, ending	5,000	$ 1.34

The aggregate intrinsic value of restricted stock vested during the year ended December 31, 2007 was $67 thousand.

MTI Micro Option Plan

The 2001 MTI Micro Plan was approved by MTI Micro's stockholders in 2001 and provided an initial aggregate number of 1,766,000 shares of MTI Micro common stock to be awarded. The number of shares which may be awarded under the 2001 MTI Micro Plan and awards outstanding have been adjusted for a 2004 reverse stock split, and during 2005, 2006, and 2007, the total number of shares which may be awarded under the 2001 MTI Micro Plan were 3,416,667 shares. Under the 2001 MTI Micro Plan, the MTI Micro Board of Directors was authorized to award stock options to officers, directors, employees and consultants. No further grants will be made under this plan.

Options issued to employees generally vest 25% per year beginning one year after grant. Option exercise prices were determined by MTI Micro's Board of Directors. Unexercised options generally terminate ten years after date of grant. Up until January 1, 2006, MTI Micro followed APB Opinion No. 25 and related Interpretations, in accounting for employee stock-based compensation and to provide the disclosures required under SFAS No. 123. APB Opinion No. 25 requires no recognition of compensation expense for most of the stock-based compensation arrangements provided by MTI Micro, namely, broad-based employee stock purchase plans and option grants where the exercise price is equal to or not less than the market value at the date of grant. However, APB Opinion No. 25 requires recognition of compensation expense for variable award plans over the vesting periods of such plans, based upon the then-current market values of the underlying stock. As of January 1, 2006, MTI Micro is accounting for employee stock-based compensation under FAS 123R.

Presented below is a summary of compensation expense, which is included in the summary of the Company's compensation expense under all share-based awards above, for the MTI Micro plan:

(Dollars in thousands)	2005	2006	2007
Stock options	$ 201	$ 25	$ 12

Total stock-based compensation expense	$ 201	$ 25	$ 12

Presented below is a summary of the 2001 MTI Micro stock option plans activity for the years ended December 31:

	2005	2006	2007
Shares under option, beginning	2,876,881	78,461	33,668
Granted	358,000	—	—
Exercised	(10)	—	—
Canceled/Forfeited	(3,156,410)	(44,793)	(11,000)
Shares under option, ending	78,461	33,668	22,668
Options exercisable	35,752	17,003	18,626
Remaining shares available for granting of options	3,280,403	3,325,196	3,336,196

The weighted average exercise price for MTI Micro options is as follows for each of the years ended December 31:

	2005	2006	2007
Shares under option, beginning	$ 3.00	$ 3.22	$ 3.61
Granted	3.68	—	—
Exercised	2.55	—	—
Canceled/Forfeited	3.12	2.93	3.42
Shares under option, ending	3.22	3.61	3.70
Options exercisable, ending	2.93	3.57	3.63

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The fair value of MTI Micro options granted in 2005, which is amortized to expense over the option vesting period in determining the pro forma impact, was estimated on the date of grant using the Black-Scholes Option Pricing model with the following weighted average assumptions for the year ended December 31:

	2005	
Expected life of option	5	years
Risk-free interest rate	4.28	%
Expected volatility of the MTI Micro's stock	77.3	%
Expected dividend yield on MTI Micro's stock	0	%

The weighted average fair value of MTI Micro options granted for the year ended December 31 is as follows:

	2005
Fair value of each option granted	$ 3.68
Fair value of all options granted	$ 930,890

In accordance with SFAS No. 123, the weighted average fair value of stock options granted is required to be based on a theoretical statistical model using the preceding Black-Scholes Option Pricing model assumptions.

Outstanding Options				**Options Exercisable**	
Exercise Price Range	**Number**	**Weighted Average Remaining Contractual Life**	**Weighted Average Exercise Price**	**Number**	**Weighted Average Exercise Price**
$ 2.39 - $ 2.55	6,500	6.4	$ 2.44	5,375	$ 2.45
$ 2.76 - $ 3.80	4,501	5.7	$ 3.03	4,501	$ 3.03
$ 4.06 - $ 4.66	11,667	6.2	$ 4.66	8,750	$ 4.66
	22,668	6.2	$ 3.70	18,626	$ 3.63

Based upon an estimated common stock price of $0.51 at December 31, 2007, the intrinsic value of all MTI Micro's outstanding and exercisable options are zero, since all exercise prices are above the estimated common stock fair value price.

On December 30, 2005, the Company granted options to acquire 1,021,213 shares of MTI common stock, par value $0.01 per share, to certain Optionees. The options have an exercise price per share of $2.80 (the closing price of the Company's common stock on December 30, 2005). The

Company issued the options pursuant to a November 28, 2005 stock option exchange offer. MTI Micro options outstanding for a purchase of a total of 2,392,947 shares of MTI Micro common stock, par value $0.01 per share, were tendered by the Optionees and then cancelled by MTI Micro as a result of this exchange. Each option is exercisable for one share of MTI common stock. The exchange rate was one option for each two MTI Micro options, rounded down to the nearest whole option, or if an individual had an MTI Micro option balance in excess of 150,000 options, then at a rate of one option for each four MTI Micro options in excess of 150,000 options. The exchange was accounted for in accordance with EITF 00-23 Issue 1 and no compensation expense was recorded.

14. Cash Flows - Supplemental Information

(Dollars in thousands)	Years Ended December 31,		
	2005	**2006**	**2007**
Non-Cash Investing and Financing Activities:			
Change in investment and paid-in capital resulting from other investors' activity in MTI Micro stock	$ (301)	$ (1,284)	$ (521)
Cash Payments:			
Taxes paid (tax refunds), net	37	3	(10)

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15. Derivatives

The Company held or has outstanding as of December 31, the following derivative financial instruments:

	2006	2007	Expiration
Derivatives issued:			
Warrants, exercisable beginning June 20, 2007, to purchase the Company's common stock issued to three investors at a purchase price of $2.27 per share	3,027,778	3,027,778	12/19/2011

Plug Power Investment Right Derivative: The Company placed 2,700,000 shares of Plug Power common stock in escrow that was available for purchase by Fletcher in certain instances. Fletcher could, on one or multiple occasions, from June 1, 2005 to December 31, 2006, exercise its right to purchase from the Company a number of shares of Plug Power common stock totaling $10,000 thousand divided by the prevailing price (as defined below) per share of Plug Power common stock, but only to the extent of the number of shares remaining in escrow. Commencing immediately after the SEC declared effective on May 20, 2004 the registration statement relating to shares of the Company's common stock owned by Fletcher, the Company had the right to have 250,000 of such shares released from escrow to the Company, on a monthly basis, in the event that on any day during such month, the prevailing price of the Company's common stock exceeds $6.343 (which price may have been adjusted to reflect stock splits, recombinations, stock dividends or the like).

The exercise price for the Plug Power investment right was $10,000 thousand less the positive difference between $18,000 thousand and the product of the sum of 2,680,671 shares multiplied by the prevailing price per share of the Company's common stock on the date Fletcher elected to exercise such right, all divided by the quotient obtained by dividing $10,000 thousand by the prevailing price of Plug Power common stock on the date.

Fletcher elected to exercise such right. As used herein, a prevailing price is the average of the daily volume-weighted average price per share of common stock during the sixty-business-day period ending three days prior to the date Fletcher elects to exercise such right, provided however that the price may not exceed the average of the daily volume-weighted average prices for any ten business days within such sixty-business day period.

On June 24, 2005, Fletcher notified the Company of their election to exercise in full its right to purchase from the Company certain shares of common stock of Plug Power. As a result of this election, Fletcher purchased 1,799,791 shares of Plug Power common stock from the Company

at a price of $0.7226 per share, with proceeds to the Company of $1,301 thousand. This transaction closed on June 28, 2005 and, in connection with this exercise, the Company recognized a loss based on the intrinsic value of the derivative immediately prior to exercise of $7,173 thousand and a gain on the sale based on the fair value of the underlying Plug Power common shares of $9,635 thousand.

Warrant Derivative to Purchase MTI Common Stock: The warrants issued during the Company's December 2006 capital raise were legally freestanding, detachable and transferable by the holders. The features of the warrant allowed both straight cash exercises as well as cashless exercises. Due primarily to a stipulation in the warrant agreement which allowed a potential cash settlement with the holders if the Company was acquired by, or merged with a private company, these warrants were classified as an asset/liability derivative in accordance with SFAS No. 133 (paragraph 11) and EITF 00-19.

The estimated fair value of this warrant at the date issued was $1.27 per share, using a Black-Scholes Option Pricing model and assumptions similar to those used for valuing the Company's employee share-based compensation. The fair value of the derivative is recorded in the "Derivative Liability" line on its financial statements, and is valued quarterly using the Black-Scholes Option Pricing Model. The assumptions used for the valuations as of December 31 were as follows:

	2006		**2007**	
Expected life of option (days)	1,815		1,450	
Risk-free interest rate	4.70	%	3.45	%
Expected volatility of stock	80.34	%	73.46	%
Expected dividend yield	None		None	

The Company recognizes changes in fair value in its Consolidated Statements of Operations in the line titled "Gain on derivatives."

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16. Commitments and Contingencies

Lawrence Litigation

On September 9, 1998, Barbara Lawrence, the Lawrence Group, Inc. ("Lawrence") and certain other Lawrence-related entities ("Plaintiffs") initially filed suit in the United States Bankruptcy Court for the Northern District of New York ("Bankruptcy Court") and the United States District Court for the Northern District of New York ("District Court"), which were subsequently consolidated in the District Court, against First Albany Corporation, now known as Broadpoint Capital, Inc. ("BCI"), the Company, Dale Church, Edward Dohring, Beno Sternlicht, Alan Goldberg and George McNamee (Church, Dohring, Sternlicht, Goldberg and McNamee are former Directors of the Company), Marty Mastroianni (former President and Chief Operating Officer of the Company) and 33 other individuals ("Defendants") who purchased a total of 820,909 shares(2,462,727 post-split) of the Company's stock from the Plaintiffs. The case concerns the Defendants' 1997 purchase of the Company's common stock from the Plaintiffs at the price of $2.25 per share ($0.75 per share post split). BCI acted as Placement Agent in connection with the negotiation and sale of the shares, including in proceedings before the Bankruptcy Court, which approved the sale in September 1997.

Plaintiffs claim that the Defendants failed to disclose material inside information to the Plaintiffs in connection with the sale and that the $2.25 per share ($0.75 per share post split) purchase price was unfair. Plaintiffs are seeking damages of $5 million plus punitive damages and costs. In April 1999, Defendants filed a motion to dismiss the amended complaint, which was denied by the Bankruptcy Court. On appeal in October 2000, Plaintiffs' claims were dismissed by the District Court. In November 2000, Plaintiffs filed an appeal of that dismissal with the United States Court of Appeals for the Second Circuit. In June 2002, the Second Circuit Court of Appeals reversed the District Court decision in part and remanded the case for further consideration of the Plaintiffs' claims as motions to modify the Bankruptcy Court sale order. The Plaintiffs' claims have now been referred back to Bankruptcy Court for such consideration. By order and decision dated September 30, 2003, the Bankruptcy Court allowed certain limited discovery to proceed, and this process is still underway.

The Company believes the claims have no merit and intends to defend them vigorously. The Company cannot predict theoutcome of the claims nor reasonably estimate a range of possible loss given the current status of the litigation. Accordingly, no amounts have been reserved for this matter.

Leases

The Company and its subsidiaries lease certain manufacturing, laboratory and office facilities. The leases generally provide for the Company to pay either an increase over a base year level for taxes, maintenance, insurance and other costs of the leased properties or the Company's allocated share of insurance, taxes, maintenance and other costs of leased properties. The leases contain renewal provisions.

Future minimum rental payments required under non-cancelable operating leases are (dollars in thousands): $694 in 2008, $659 in 2009, $1 in 2010 and $0 in 2011 and 2012. Rent expense under all leases was $746, $748, and $687 thousand for 2005, 2006, and 2007, respectively. Contingent rent included in the rent expense was $11, $3, and $3 thousand for 2005, 2006, and 2007, respectively.

Warranties

Below is a reconciliation of changes in product warranty liabilities at December 31:

(Dollars in thousands)	**2006**	**2007**
Balance, beginning of period	$ 20	$ 19
Accruals for warranties issued	25	126
Accruals related to pre-existing warranties (including changes in estimates)	(12)	—
Settlements made (in cash or in kind)	(14)	(73)
Balance, end of period	$ 19	$ 72

Licenses

On January 24, 2008, the Company cancelled its non-exclusive licensing agreement with Los Alamos National Laboratory (“LANL”) covering certain direct methanol fuel cell technology. This agreement, which was last amended on May 17, 2006, prescribed annual license fees ranging from $35,000 in 2008 to $100,000 in 2019. The Company paid a one-time fee of $50,000 to cancel the agreement, and no future royalties will be paid. The Company cancelled this agreement because it no longer considers the direct methanol fuel cell technology licensed from LANL to be applicable to its future products.

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Under the NYSERDA contract, MTI Micro agreed to pay NYSERDA a royalty of 5.0% of the sales price of any product sold incorporating IP developed pursuant to the NYSERDA contract. If the product is manufactured by a New York State manufacturer, this royalty is reduced to 1.5%. Total royalties are subject to a cap equal to two times the total contract funds paid by NYSERDA to MTI Micro, and may be reduced to reflect any New York State jobs created by MTI Micro.

Employment Agreements

The Company has employment agreements with certain employees that provide severance payments, certain other payments, accelerated vesting and exercise extension periods of certain options upon termination of employment under certain circumstances, as defined in the applicable agreements. As of December 31, 2007, the Company's potential minimum obligation to these employees was approximately $753 thousand.

Contract Losses

During 2005, MTI Micro entered into a fixed price contract with Saft America, Inc. ("SAFT") under the U.S. Army CECOM contract. The total fixed price to be paid at the completion was amended on November 14, 2006 from $470 thousand to $418 thousand, in recognition of the elimination of Milestone 4. As of December 31, 2006, MTI Micro forecasted costs in excess of this revised contract value of $66 thousand, and accrued this amount for the anticipated cost overrun for this project. The project was completed during February 2007.

17. Related Party Transactions

Management believes transactions among related parties are as fair to the Company as obtainable from unaffiliated third parties.

The Company purchases materials from E.I. du Pont de Nemours and Company ("DuPont"), a stockholder in MTI Micro. Such purchases totaled $130 for the year ended December 31, 2005.

During the Company's December 2006 capital raise, Sidney V. Gold, a stockholder in MTI Micro, purchased 5,000 units consisting of 500,000 shares of the Company's common stock and warrants exercisable for five years to purchase an additional 250,000 shares of its common stock at $2.27 per share. The purchase price per unit was $180.00.

18. Geographic and Segment Information

The Company sells its products on a worldwide basis with its principal markets listed in the table below where information on product revenue and funded research and development revenue is summarized by geographic area for the Company as a whole for each of the years ended December 31:

(Dollars in thousands)	2005	2006	2007
Product revenue:			
United States	$ 4,751	$ 4,737	$ 5,453
Japan	628	1,762	2,516
Singapore	31	355	286
Other Pacific Rim	202	279	307
Europe	96	175	161
Rest of World	304	359	305
Total product revenue	$ 6,012	$ 7,667	$ 9,028
Funded research and development revenue:			
South Korea	$ —	$ 427	$ 448
United States	1,829	62	1,108
Total funded research and development revenue	$ 1,829	$ 489	$ 1,556
Total revenue	$ 7,841	$ 8,156	$ 10,584

Revenues are attributed to regions based on the location of customers.

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The Company operates in two business segments**,** New Energyand Test and Measurement Instrumentation. The New energy segment is focused on commercializing direct methanol fuel cells. The Test and measurement Instrumentation segment designs, manufactures, markets and services computer-based balancing systems for aircraft engines, high performance test and measurement instruments and systems, and wafer characterization tools for the semiconductor industry. The Company's principal operations are located in North America.

The accounting policies of the new energy and test and measurement instrumentation segments are similar to those described in the summary of significant accounting policies (See Note 2). The Company evaluates performance based on profit or loss from operations before income taxes, accounting changes, items management does not deem relevant to segment performance, and interest income and expense. Inter-segment sales are not significant.

Total product revenues contributed by the test and measurement instrumentation products segment and their percentage of total product revenue for each of the years ended December 31 are shown below:

(Dollars in thousands)	**2005**		**2006**		**2007**	
	Sales	%	Sales	%	Sales	%
Aviation	$ 3,013	50.12 %	$ 2,990	39.00 %	$ 3,664	40.58 %
General Gauging	2,688	44.71	4,165	54.32	4,489	49.72
Semiconductor	311	5.17	512	6.68	875	9.70
Total	$ 6,012	100.00 %	$ 7,667	100.00 %	$ 9,028	100.00 %
Total Foreign-Based Revenue	$ 1,261	20.97 %	$ 2,930	38.22 %	$ 3,557	39.40 %

In the test and measurement instrumentation segment, the U.S. Air Force accounted for $2,385 thousand or 30.4% of total revenue in 2005, $1,774 thousand or 23.1% of total product revenue in 2006, and $2,375 thousand or 26.3% of total product revenue in 2007. Sales to a Japanese distributor accounted for $1,757 thousand or 22.9% of total product revenue in 2006, and $2,501 thousand or 27.7% of total product revenue in 2007.

In the new energy Segment, the DOE accounted for $930 thousand or 11.9% of total funded research and development revenue in 2005, $63 thousand or 12.8% of total funded research and development revenue in 2006, and $675 thousand or 43.4% of total funded research and development revenue in 2007. Samsung accounted for $426 thousand or 87.2% of total funded research and development revenue in 2006 and $448 thousand or 28.9% of total funded research and development revenue in 2007, while SAFT accounted for $418 thousand or 26.8% of total funded research and development revenue in 2007.

Summarized financial information concerning the Company's reportable segments is shown in the following table. The "Other" column includes corporate related items and items such as income taxes or unusual items, which are not allocated to reportable segments. The "Reconciling Items" column includes minority interests in a consolidated subsidiary. In addition, segments' non-cash items include any depreciation and amortization in reported profit or loss. The new energy segment figures include the Company's MFC operations, equity securities of Plug Power, gains on the sale of these securities, and (losses) gains related to the embedded derivative for the purchase of Plug Power common stock.

(Dollars in thousands)

Year Ended December 31, 2005	New Energy	Test and Measurement Instrumentation	Other	Reconciling Items	Consolidated Totals
Product revenue	$ —	$ 6,012	$ —	$ —	$ 6,012
Funded research and development revenue	1,829	—	—	—	1,829
Research and product development expenses	8,546	1,125	—	—	9,671
Selling, general and administrative expenses	3,772	2,188	4,927	—	10,887
Gain on securities available for sale	10,125	—	—	—	10,125
Loss on derivatives	(10,407)	—	—	—	(10,407)
Segment (loss) profit from continuing operations before income taxes, equity in holdings' losses and minority interests	(13,708)	(74)	(1,167)	—	(14,949)
Segment (loss) profit	(13,708)	(74)	(2,754)	1,442	(15,094)
Total assets	20,996	1,962	18,309	—	41,267
Securities available for sale	18,947	—	—	—	18,947
Capital expenditures	783	123	98	—	1,004
Depreciation and amortization	576	69	608	—	1,253

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(Dollars in thousands)	New Energy	Test and Measurement Instrumentation	Other	Reconciling Items	Consolidated Totals
Year Ended December 31, 2006					
Product revenue	$ —	$ 7,667	$ —	$ —	$ 7,667
Funded research and development revenue	489	—		—	489
Research and product development expenses	11,588	1,333		—	12,921
Selling, general and administrative expenses	2,733	2,457	4,882	—	10,072
Gain on securities available for sale	4,289	—	—	—	4,289
Segment (loss) profit from continuing operations before income taxes, equity in holdings' losses and minority interests	(12,847)	662	(795)	—	(12,980)
Segment (loss) profit	(12,847)	662	(2,690)	1,208	(13,667)
Total assets	15,565	2,782	15,464	—	33,811
Securities available for sale	10,075	—		—	10,075
Capital expenditures	1,284	200	90	—	1,574
Depreciation and amortization	604	94	403	—	1,101

(Dollars in thousands)	New Energy	Test and Measurement Instrumentation	Other	Reconciling Items	Consolidated Totals
Year Ended December 31, 2007					
Product revenue	$ —	$ 9,028	$ —	$ —	$ 9,028
Funded research and development revenue	1,556	—	—	—	1,556
Research and product development expenses	10,115	1,650	—	—	11,765
Selling, general and administrative expenses	1,921	2,650	4,167	—	8,738
Gain on securities available for sale	2,549	—	—	—	2,549
Segment (loss) profit from continuing operations before income taxes, equity in holdings' losses and minority interests	(11,189)	789	2,791	—	(7,609)
Segment (loss) profit	(11,189)	789	243	582	(9,575)
Total assets	8,128	3,018	7,570	—	18,716
Securities available for sale	4,492	—	—	—	4,492

Capital expenditures	212	177	25	—	414
Depreciation and amortization	715	117	297	—	1,129

The following table presents the details of “Other” segment (loss) profit for each of the years ended December 31:

(Dollars in thousands)	**2005**	**2006**	**2007**
Corporate and other (expenses) income:			
Depreciation and amortization	$ (608)	$ (403)	$ (297)
Interest income	309	486	413
Gain on derivatives	—	182	2,967
Income tax (expense) benefit	(1,587)	(1,895)	(2,548)
Other expense, net	(868)	(1,060)	(292)
Total (expense) income	$ (2,754)	$ (2,690)	$ 243

19. Restructuring

In March 2007, the Company announced the suspension of MTI Micro’s high power direct methanol fuel cell program in response to decreased funding and sales opportunities in the military market. In connection with this action, the Company accrued restructuring charges of $344 thousand pre-tax, consisting primarily of cash-based employee severance and benefit costs related to the reduction of 23 positions within its new energy segment and Corporate staff. Restructuring expenses were classified as selling, general and administrative expenses within the Company’s Consolidated Statements of Operations for the period. As of December 31, 2007, all employees participating in this reduction in force had been terminated. For the year ended December 31, 2007, the Company paid $330 thousand in employee severance, benefits and job placement assistance costs. The remaining accrual at December 31, 2007 was $10 thousand, reflecting a $3 thousand reduction in estimated remaining liability from the Company’s original restructuring accrual due to benefit elections made by employees participating in this action. This remaining liability is expected to be paid by the end of the first quarter of 2008.