ALTAIR NANOTECHNOLOGIES INC
Form 10-K
March 12, 2010
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, 2009

[_] TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE TRANSITION PERIOD FROM ________ TO __________

ALTAIR NANOTECHNOLOGIES INC.

(Exact name of registrant as specified in its charter)

Canada	1-12497	33-1084375
(State or other jurisdiction of incorporation)	(Commission File No.)	(IRS Employer Identification No.)

204 Edison Way
Reno, Nevada 89502-2306

(Address of principal executive offices, including zip code)

Registrant's telephone number, including area code: (775) 856-2500

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

Common Shares, no par value	NASDAQ Capital Market
(Title of Class)	(Name of each exchange on which registered)

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

Indicate by check mark whether 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 whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES [_] NO [_]

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Report or any amendment to this Report. [_]

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 "accelerated filer", "large accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act (Check one):

[_] Large Accelerated Filer [X] Accelerated Filer
[_] Non-accelerated Filer [_] Smaller reporting Company
(Do not check if a smaller reporting company)

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 common shares held by non-affiliates of the Registrant on June 30, 2009, based upon the closing stock price of the common shares on the NASDAQ Capital Market of $.95 per share on June 30, 2009, was approximately $79.4 million. Common Shares held by each officer and director and by each other person who may be deemed to be an affiliate of the Registrant have been excluded.

As of March 5, 2010, the Registrant had 105,400,728 common shares outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's Proxy Statement on Schedule 14A for the Registrant's 2010 Annual Meeting of Shareholders are incorporated by reference in Part III as specified.

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PART I

This Annual Report on Form 10-K for the year ended December 31, 2009 (this "Report") contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), that involve risks and uncertainties. Purchasers of any of the common shares (the "common shares") of Altair Nanotechnologies Inc. are cautioned that our actual results will differ (and may differ significantly) from the results discussed in the forward-looking statements. Factors that could cause or contribute to such differences include those factors discussed herein under "Item 1A. Risk Factors" and elsewhere in this Report generally. The reader is also encouraged to review other filings made by us with the Securities and Exchange Commission (the "SEC") describing other factors that may affect future results.

Unless the context requires otherwise, all references to "Altair," "we," "Altair Nanotechnologies Inc.," or the "Company" in this Report refer to Altair Nanotechnologies Inc. and all of its consolidated subsidiaries. Altair currently has one wholly owned subsidiary, Altair US Holdings, Inc., a Nevada corporation. Altair US Holdings, Inc. directly or indirectly wholly owns Altairnano, Inc., a Nevada corporation, Mineral Recovery Systems, Inc., a Nevada corporation and Fine Gold Recovery Systems, Inc., a Nevada corporation which was dissolved on December 30, 2008. AlSher Titania LLC, a Delaware limited liability company, is 70% owned by Altairnano, Inc. We have registered or are in the process of registering the following trademarks: Altair Nanotechnologies Inc®, Altair Nanomaterials, Inc.®, Altairnano®, TiNano® and Nanocheck®. Any other trademarks and service marks used in this Report are the property of their respective holders.

Item 1. Business

We are a Canadian corporation, with principal assets and operations in the United States, whose primary business is developing, manufacturing and selling our nano lithium titanate battery products and providing related design, installation and test services. Our primary focus is marketing our large-scale energy storage solutions to power companies and electric grid operators throughout the world. In addition, we market our battery products to the electric and hybrid-electric mass-transit markets.

We also provide contract research services on select projects where we can utilize our resources to develop intellectual property and/or new products and technology. Although contract services revenue comprised a significant portion of our total revenues in recent years accounting for 65%, 87%, and 55%, respectively in 2009, 2008 and 2007, we expect this percentage to decline as our battery sales increase.

Our Power and Energy Group

Primary Products

We are developing, marketing, producing and selling our proprietary rechargeable lithium ion batteries, which we refer to as our nano lithium titanate batteries. As explained in greater detail below, the principal features used to compare rechargeable batteries include charge and discharge rates, power and energy density, cycle and calendar life, operational safety and cleanliness, operating temperature range, and round trip efficiency. In laboratory and field tests, our nano lithium titanate batteries have performed extremely well in nearly all of these categories. In particular, our nano lithium titanate batteries show remarkable power, charge and discharge rates and cycle life, together with high functionality at both high and low temperatures. In some categories our batteries perform as much as an order of magnitude (a factor of 10) better than those of rechargeable batteries currently being used for our targeted applications. Battery uses requiring these strengths include electric utility services for frequency regulation, the integration of renewable energy generation sources into the grid, uninterruptible power supplies, hybrid electric and full electric vehicles particularly in the mass-transit market.

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Our Target Markets

Power and Grid Operators. Power companies and grid operators are seeking cost effective ways to ensure that electric power supply matches electric power demand. There is essentially no inventory of electricity. Power and grid operators are constantly trying to match the electricity generated with the load demanded. They are very good at forecasting from hour to hour the load expected, but they cannot project from minute to minute the exact load anticipated. To maintain proper frequency of the grid (60Hz in the U.S.), the generation and load must be balanced within very tight tolerances. Maintaining these tolerances is typically achieved through the use of auxiliary generators. If the load is either higher or lower than the power being generated, an auxiliary generator is either started or stopped. However, it takes these generators from generally seven to 15 minutes to ramp up to full efficient operation or to shut down. During that period the load may change directions and the grid operator then must direct another auxiliary generator to shut down or ramp up. This is a very inefficient process with the grid operators constantly chasing a variable load. The process of managing these very short-term changes in energy demand is referred to as "frequency regulation." The chart below depicts what a typical workday in the PJM Regional Transmission Organization that manages the electric grid in the Mid-Atlantic states region looks like and how our battery can help smooth out the fluctuations.

Electricity demand on a typical workday in the PJM electric grid covering the Mid-Atlantic states and District of Columbia

Utilities can address frequency regulation issues by maintaining on-line generating capacity at a level that is always higher than expected peak demand. However this is an expensive solution. Most U.S. utilities are required to maintain between 1% - 1.5% of their peak load capacity to provide frequency regulation. As an example, for the PJM Regional Transmission Organization, this requirement translates into a 900 megawatt daily requirement. In many foreign countries where the electric grid is not as well developed as it is in the U.S., utilities need to reserve up to 5% or more of their capacity strictly to provide frequency regulation. GTM Research estimated in an August 2009 report that the current market for ancillary services, including frequency regulation, is 7 Gigawatts in the U.S. and 38 Gigawatts globally. At the cost of $1 million per megawatt, this translates into a $38 billion global market. To reduce the costs of providing frequency regulation, utilities and grid operators are seeking "fast energy" storage systems. When supply exceeds demand for a short period, these systems accept a charge from the grid until operators reduce output; then when demand exceeds supply for a short period, these fast energy storage systems deliver electric energy back to the grid for a short period to give operators time to reroute energy from another power generator or power-up a new power source. Our large-scale nano lithium titanate battery systems are a fast storage energy system designed to respond in milliseconds and meet this need.

The need for a fast energy storage technology like our large-scale nano lithium titanate battery is enhanced by the increasing use of renewable energy sources. Photo Voltaic (PV) solar and wind power generation by nature are intermittent and unpredictable sources of energy that can fluctuate widely in a very short period of time. For example, it is not uncommon for a PV array to fluctuate +/- 50% in less than 90 seconds. With a small rooftop array, it isn't an issue, because the size of the generator is too small to matter. However, with a 50+ MW array, problems arise as the electric grid isn't currently built to handle this kind of a fluctuation. According to the Federal Energy Regulatory Commission, 29 states and the District of Columbia currently require the integration of renewables into the grid through legislated renewable portfolio standards. Many of these states have established targets requiring the integration of renewable generation sources equal to or exceeding 25% of total generation within the next decade. These levels are substantially higher than what is available today. The mandated adoption of these renewable energy generation systems is likely to increase the need for effective, efficient, clean energy storage technologies to provide frequency regulation services and maintain the reliability and stability of the associated electric grid systems.

Electric and Hybrid Electric Buses. Large cities, counties and transit authorities are increasingly turning to electric and hybrid electric buses to reduce pollution and reliance diesel fuel for their transportation systems. At this stage of the market development, electric and hybrid electric vehicles generally cost more than their conventional counterparts, although the upfront cost is partially offset by lower operating costs and a potentially longer operating life. Proterra LLC recently had one of its all electric buses using our batteries tested at the Altoona Test Track by Penn State University and demonstrated a 17.5 to 29.5 miles per gallon (mpg) fuel equivalent vs. a normal diesel bus that gets under 4 mpg. This difference translates into a fuel savings of about $350,000 over the life of the bus. This is in addition to the savings in maintenance costs over the life of the bus as a result of fewer mechanical systems and moving parts to maintain. We believe that cities, counties and mass transit operators are willing to accept the higher upfront costs in order to benefit from the expected savings in long-term operating costs and potentially longer operating life, as well as the environmental benefits.

Electric and hybrid electric buses require a significant amount of power, operate throughout the day, have a long expected life and run in all temperatures. The relative strengths of our nano lithium titanate batteries, including the high levels of power, rapid charge and discharge rates, long cycle life and ability to function at temperature extremes, are particularly well suited for electric and hybrid electric buses, giving us what we believe is a compelling competitive advantage in this market.

According to the Center of Globalization, Governance & Competitiveness, associated with Duke University, the global market for transit buses is currently a $3 billion market, and projected to grow by 59% by 2017. With the growing concern regarding the release of pollutants associated with burning fossil fuels, the attractiveness of all electric and hybrid electric buses is rapidly growing. Working with Proterra and other potential partners, we are attempting to establish our nano lithium titanate batteries as the power source of choice in this emerging market.

Military Uses. In the military market, we have focused on opportunities that allowed us to leverage our research efforts. For example, the M119 program we completed for the U.S. Army during 2009 has served us well in the advancement of our product safety testing and commercial development. In the near term, it has resulted in the development of a battery module that is an excellent fit for the Army's M119 Howitzer Program. If the current Army testing demonstrates our battery can safely power an artillery piece in a battlefield situation surrounded by high explosives and flying bullets, it will provide a strong endorsement for its use in much less stressful civilian environments. Our work with the Office of Naval Research to develop a 2.5 MW battery to serve as back-up on navy warships is also progressing well. We completed Phase I of a four phase program during 2009 and should complete Phase II in mid 2010 with Phase III anticipated to begin shortly after completion of Phase II.

Key Features of Our Nano Lithium Titanate Batteries

One of the principal advantages of our nano lithium titanate battery is its rapid charge and discharge rate. The charge rate is the rate at which a battery's energy is replenished, and a discharge rate at which the energy stored in a battery is transferred (or, in the case of self-discharge, leaked). Through the optimization of materials used in the negative electrode of our nano lithium titanate battery cells, our current cells are capable of recharge times of 10 minutes to 95% or more of initial battery capacity. The rapid recharge ability is important in our target markets of frequency regulation and mass-transit buses.

Our nano lithium titanate batteries also discharge rapidly, symmetrical with their charging ability. This balanced charge and discharge capability can be important in frequency regulation. If a battery cannot be charged at the same rate at which it discharges, then over time, with random high rate up and down regulation, a less capable battery system may ultimately be fully discharged and therefore incapable of further regulation.

Our nano lithium titanate batteries have both a longer cycle life and calendar life than commercially available rechargeable battery technologies such as conventional lithium ion, nickel-metal hydride (NiMH) batteries and nickel cadmium (NiCd) batteries. The ability of any rechargeable battery to store energy will diminish as a result of repeated charge/discharge cycles. A battery's "cycle life" is the number of times it can be charged and discharged without a significant reduction in its energy storage capacity. Our nano lithium titanate is termed a zero strain material, meaning that the material essentially does not change shape upon the entry and exit of a lithium ion into and from the material. Graphite, the most common material in conventional lithium ion batteries, will expand and contract as much as 8% with each charge/discharge cycle. This constant change in volume leads to significantly shorter calendar and cycle life than with our nano lithium titanate anodes. In a January 2007 test, we completed 25,000 deep charge/discharge cycles of our innovative cells. Even after 25,000 cycles, the cells still retained over 80% of their original charge capacity. This represents a significant improvement over conventional batteries, which typically retain that level of charge capacity only through approximately 1,000 to 3,000 deep charge/discharge cycles.

Our nano lithium titanate also represents a breakthrough in low and high-temperature performance. Nearly 90% of room temperature charge retention is realized at -30°C from our nano lithium titanate battery cells. In contrast, common lithium ion technology possesses virtually no charging capabilities at this low temperature, and the other rechargeable battery types such as lead acid, NiMH and NiCd take 10 to 20 times longer to charge at this low temperature. This breakthrough performance at extreme temperatures is important in our target markets, in which large vehicles, large-scale fast storage batteries and military batteries are expected to function in a wide range of temperature conditions. Transit buses, for example, need to function equally well in the cold New England winters and the hot summers of the Southwest.

We also believe that relative safety is one of the strengths of our nano lithium titanate batteries. Any battery cell or large battery unit with lithium ion cell technology must take into account safety considerations, the most important of which is thermal runaway. Thermal runaway is the temperature at which the battery chemistry will break down causing the battery to overheat and potentially explode or catch fire. This temperature is often referred to as the critical temperature. Critical temperature for lithium ion battery cells using conventional graphite anodes is around 130° C, a direct result of chemical reaction between the graphite and the electrolyte. With our current nano lithium titanate anode in place of graphite and an appropriate cathode material, that critical temperature is near 180° C, an increase in safety margin of approximately 50° C. Materials we are working on in our lab are approaching 250oC before the critical temperature is reached. The batteries we and our partners are developing for high power applications often consist of dozens or even thousands of battery cells working together as part of a single modular battery unit. When a large number of cells are aggregated into a single battery unit, the likelihood of, and risks associated with, thermal runaway increase. In this context, we believe that the additional temperature margin our individual battery cells experience before reaching the critical temperature makes our battery cells better suited than competing lithium ion batteries for the high-power applications we are targeting.

The current generation of batteries made with our nano lithium titanate exhibit lower energy density at room temperatures than conventional lithium ion systems. Energy density is normally described as watt-hours per kilogram or watt-hours per liter and refers to the available energy per unit weight or per unit volume. A battery with high energy density will deliver more energy per unit weight or volume than a battery with lower energy density. Our batteries made with our nano lithium titanate have energy densities, watt-hours per kilogram, that are better than lead acid, NiCd and NiMH batteries and approximately 50-70% of conventional lithium ion batteries. This energy density disadvantage is significantly less compared to conventional lithium ion batteries as the operating temperature moves away from room temperature, particularly to colder environments, and less significant in environments such as large vehicles and utilities in which battery volume is not a significant issue. When the end use of the battery requires constant performance across a wide range of temperatures, such as the need for a hybrid bus to function comparably in both winter and summer, our nano lithium titanate cells may be the preferred solution. Also, conventional lithium ion batteries prefer to cycle between approximately 30% and 80% state of charge to achieve optimum cycle life. As a result, they only use about 50% of their nominal available energy.

Sources of Supply and Raw Materials

An important consideration as we begin to grow our revenue stream is to ensure that we have access to the various components and raw material we need to manufacture and assemble our various products. With a small product volume having multiple suppliers for each component is not practical. As we anticipate larger orders, establishing multiple sources for key components is becoming much more important to us.

We currently have a single contract manufacturer for our nano lithium titanate cells. We have experienced a product quality issue with this critical cell manufacturing supplier that has limited our supply of new cells. We are in active discussions with this supplier to identify the root cause of the quality problem and rectify it. The cells in question are under warranty, and although we do not expect a material financial impact, the delay in rectifying this problem, if it continues for an extended period, may have an adverse impact on the delivery of product sales during the first half of 2010. We are actively working with a second manufacturer and anticipate having them qualified and providing an additional source of cells by the end of 2010.

Two raw materials are key components in the manufacture of our nano lithium titanate powder that is the basic building block of our battery products, namely compounds of lithium and titanium. We currently source our lithium compound from two of the largest producers in the world and do not foresee any problems in scaling up our purchases as our volume of business increases. We source our titanium compound from a single provider who is a global leader in the field, and we are in the process of identifying and qualifying a second supplier for this key material. At this point we are not anticipating any problems or disruptions to our supply of these raw material compounds.

All of the other components and materials used in the manufacture of our nano lithium titanate battery products are readily available from multiple suppliers.

Key Business Developments in Power and Energy

Frequency Regulation. As part of a multi-year development program with AES Energy Storage, LLC (“AES”), a subsidiary of global power leader The AES Corporation, we delivered a 2 megawatt battery system, consisting of two 53-foot container-sized 1MW units, to AES in late 2007. AES successfully completed testing of this 2 megawatt battery system in May 2008. The test consisted of AES connecting the battery to the electrical grid at a substation in Indiana and then performing a number of stringent tests to determine if it was capable of providing the services required. These tests were designed and overseen by KEMA, Inc., an independent outside engineering company, and demonstrated that the battery performed well in every respect, meeting or exceeding all expectations. Since then, one of the 1MW units has been put into commercial operation in Pennsylvania and performed flawlessly. We understand from AES that they are in the process of moving the second 1MW unit to a location in Texas to provide the same kind

of service in that location.

Since May 2008, we have been refining our energy storage solution for the electrical power industry and meeting with potential customers. Because of the significant cost and customization involved in the purchase and sale of a multi-megawatt battery storage system, lead times are long in this industry. However, we are in active negotiations with a number of potential purchasers and have begun building and storing inventory in anticipation of early 2010 orders.

Hybrid Electric and All Electric Buses. After extensive testing of numerous battery technologies over a two-year period, Proterra, LLC, a Golden, Colorado-based leading designer and manufacturer of heavy-duty drive systems, energy storage systems, vehicle control systems and transit buses, selected our nano lithium titanate battery to power its electric and hybrid electric buses. In August 2009, we signed a $900,000 contract with Proterra to deliver battery modules to them. Of this amount, $616,000 was recognized in 2009 with the balance of $284,000 to be delivered in 2010. The modules will be used by Proterra for building several electric and hybrid electric buses for municipalities and transportation authorities within the United States. The buses are predominately all-electric, 35-foot Proterra FCBE 35 transit buses. Proterra's initial product, its 35' all-electric transit bus, has been designed from the ground up to enable transit agencies to replace conventional diesel buses on a one-for-one basis with the world's first all-electric buses. This is accomplished by combining Proterra's light-weight composite body, highly efficient ProDriveTM, advanced TerraVoltTM energy storage system (powered by our batteries) and on-route rooftop FastChargingTM station to charge the batteries in 6-10 minutes. The vehicle achieves upwards of 17 miles per gallon diesel fuel equivalent fully loaded with 68 passengers – 400+% better than a comparable diesel bus. Currently, 23 public transit agencies in 11 states (California, Colorado, Florida, Illinois, Nevada, New Jersey, New York, North Carolina, South Carolina, Texas, Washington) and the District of Columbia have submitted grant requests to obtain funds to purchase Proterra buses and charging stations. Additionally, Proterra is negotiating agreements to supply its buses to several international customers. As Proterra continues to ramp up its business, we anticipate the development of a longer-term mutually beneficial relationship with them.

Military Relationships. In January 2008, we entered into a development agreement with the Office of Naval Research for $2,490,000. This is a cost reimbursement agreement whereby we developed a proof of concept battery system consisting of two 50-80 kilowatt hour batteries. Successful completion of this development work is required to qualify for further military grants with the Office of Naval Research ("ONR"). All testing associated with ONR Phase I was successfully completed in November 2008. We entered into Phase II in May of 2009 and expect to successfully complete all work in this phase in the second quarter of 2010. The U.S. Congress appropriated funds for Phase III in the fall of 2008 and for Phase IV in December, 2009. We anticipate entering into a contract for Phase III with ONR in mid 2010 and beginning work shortly after completion of Phase II. During 2008 we also entered into development agreements with the U.S. Army and the United Kingdom's Ministry of Defense for different battery systems to be used in field artillery units and other naval applications respectively. Both of these contracts were completed during 2009 and as of December 31, 2009 we are awaiting notification on the anticipated next steps for both programs. All development and testing results to date have met or exceeded customer expectations and we anticipate a continuation of these programs into 2010.

Proprietary Rights

We have been awarded 12 U.S. and 32 international patents protecting portions of our nano lithium titanate technology including: 1) Method for producing catalyst structures, 2) Method for producing mixed metal oxides and metal oxide compounds, 3) Processing for making lithium titanate, and 4) Method for making nano-sized and sub-micron-sized lithium-transition metal oxides. The U.S. patents expire beginning in 2020.

We have filed 13 U.S. patent applications directed to a variety of inventions related to aspects of our electrochemical cells including: "Nano-Materials – New Opportunities for Lithium Ion Batteries"; "Methods for Improving Lithium-Ion Battery Safety"; "Method for Preparing a Lithium-Ion Cell"; "Method for Preparing a Lithium-Ion Battery"; and, "Method for Synthesizing Nano-Sized Lithium Titanate Spinel."

Competition

Frequency Regulation and Fast Energy Storage. A number of battery producers have stated an intent to compete in the frequency regulation and fast energy storage markets; however, to date there are only two that we have directly competed against in customer frequency regulation opportunities and renewable energy integration projects. They are A123 Systems, Inc. ("A123") and Beacon Power Corporation ("Beacon"). As we or others begin to demonstrate traction in this market we expect to see increasing levels of competition from other credible suppliers. A123 has installed a 2 MW battery system in Southern California working with The AES Corporation to demonstrate its ability to provide a frequency regulation service. Unlike the independently conducted stress and performance tests that our 2 MW battery system was subjected to in Indianapolis in 2008 where the conclusions of the tests were made publicly available, we have not seen any publicly available conclusions resulting from this A123 installation. We are not aware of any direct sales of Beacon's frequency regulation product to end customers, but do believe that Beacon is intending to construct several 20 MW installations to provide frequency regulation services on its own as a system operator. Unlike A123 or Altair, Beacon employs a flywheel technology rather than a battery technology to provide frequency regulation.

We usually find that our products are competing against existing or alternative technologies for providing frequency regulation and renewables integration rather than a competitor battery manufacturer. However, we expect this situation to change as the market accepts this storage technology to a greater degree. Today most utilities and regional transmission organizations use existing coal, gas and diesel generating sources to provide frequency regulation. Although these sources are inefficient and highly polluting compared to our solution, they are known quantities and accepted by the various regulators and utilities. In many instances, particularly in the U.S., we are attempting to displace this accepted way of doing things. Consequently, there is a longer education and justification period required to help the customer understand the true costs of their current approach and the benefits, both financial and environmental, of switching to our solution. Once this new energy storage capability starts to get market traction, we expect the rate of acceptance to accelerate. Until then, however, we are experiencing a long sales cycle and don't expect that to materially change in the near future. We believe that once we demonstrate revenue traction and establish the fact that the market does exist and is very large, other larger suppliers may also target this market.

Electric and Hybrid Electric Bus and Military Applications. In the automotive area there are a large number of battery manufacturers and systems integrators currently serving the market. Many of them are larger companies with substantially stronger financial resources than we have. We believe this market will be driven by low margins and volume. As a result we believe that only larger, well-capitalized companies will ultimately be successful in this market. The mass-transit market, on the other hand, presents a different set of dynamics. The characteristics of our batteries are an excellent fit to satisfy the requirements of this market, and the needs here are different than in the general consumer automotive market. We believe that we can be a successful competitor in this segment of the overall automotive market.

With respect to the electric and hybrid electric mass-transit market, we are not aware of any commercially available products that have similar performance attributes as our nano lithium titanate batteries. Nonetheless, competitors have announced advanced lithium ion batteries and battery products aimed at these markets. Some may have advantages over our nano lithium titanate batteries with respect to features such as energy density. However, we believe that these batteries do not match the cycle life, rapid charge and discharge rates and performance at temperature extremes of our nano lithium titanate batteries.

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Currently, NiMH batteries dominate the hybrid electric vehicle market, including the mass-transit market. NiMH batteries improve upon the energy capacity and power capabilities of older alternatives, such as NiCd (for the same size cell) by 30% to 40%. Since they contain fewer toxins than NiCd batteries, NiMH batteries are more environmentally friendly than NiCd batteries, although they are not as environmentally friendly as our nano lithium titanate battery. Like NiCd batteries, NiMH batteries can be charged in about 3 hours. Charging rates must be reduced by a factor of 5 to 10 at temperatures below 0°C (32°F) and above 40°C (104°F). NiMH batteries suffer from poor deep cycle ability (i.e. the ability to be discharged to 10% or less of their capacity), possessing a recharge capability following deep discharge on the order of 200 to 300 cycles. While NiMH batteries are capable of high power discharge, dedicated usage in high power applications limits cycle life even further. NiMH batteries also possess high self-discharge rates, which is unintentional leaking of a battery's charge. NiMH batteries are intolerant to elevated temperature and, as a result, performance and capacity degrade sharply above room temperature. The most serious issue with NiMH, though, involves safety accompanying recharge. The temperature and internal pressure of a NiMH battery cell rises sharply as the cell nears 100% state of charge, necessitating the inclusion of complex cell monitoring electronics and sophisticated charging algorithms in order to prevent thermal runaway. A potential limiting factor for the widespread use of NiMH batteries may be the supply of nickel, potentially rendering the technology economically infeasible for these applications as demand continues to rise.

Producers of electric and hybrid electric vehicles are seeking to replace NiMH batteries with lithium ion batteries for several reasons. The demand for these vehicles is placing pressures on the limited supply of nickel, potentially rendering the technology economically infeasible for these applications as the demand continues to rise. Compared to NiMH batteries, conventional lithium ion batteries are stable, charge more rapidly (in hours), exhibit low self-discharge, and require very little maintenance. Except as explained below, the safety, cycle life, calendar life, environmental impact and power of lithium ion batteries is comparable to those of NiMH and NiCd batteries.

Conventional lithium ion batteries are the batteries of choice in small electronics, such as cell phones and portable computers, where high energy density and light weight are important. These same attributes are desired for electric vehicle, hybrid electric vehicle, fast energy storage and other markets. However, these applications are principally high power demand applications and/or pose other demands on usage, such as extremes of temperature, need for extremely short recharge times, and even longer extended lifetimes. Because of safety concerns related principally to the presence of graphite in conventional lithium ion batteries, conventional graphite-based lithium ion batteries sufficiently large for such power uses may raise safety concerns. In addition, current lithium ion technology is capable of about 1,000 to 3,000 cycles and has a life of about 3 years, whereas the vehicles in which they are used may have lifetimes as long as 10 to 15 years and require much larger cycle life. Conventional lithium ion batteries also do not function well at extremely hot or cold temperatures. Our batteries --which are safer, have a longer cycle life, rapid charge and discharge rates and function well at extreme temperatures -- are designed to address the power market by providing the key benefits of lithium ion batteries without the shortcomings relative to the power market.

Our All Other Division

Background

During 2008, we operated as three separate divisions – A Power and Energy Group, a Performance Materials Division and a Life Sciences Division. For nearly all of 2009, we were organized into two divisions; a Power and Energy Group and an All Other division. Our All Other division includes the remnants of our Performance Materials and Life Sciences divisions.

Based on the results of a comprehensive review of all our activities, strengths, weaknesses, competitive opportunities and the overall market that was conducted during 2008, we determined to focus our future efforts exclusively in the Power and Energy arena. As a result, we began in late 2008 and early 2009 to eliminate or sell our assets and efforts in the Life Sciences and Performance Materials divisions. As of December 31, 2009, all new efforts in the Life Sciences area have been stopped and the intellectual property rights associated with that division were assigned to Spectrum Pharmaceuticals, Inc. pursuant to an amendment to our existing license agreement. There is still a small amount of residual work being done in the Performance Materials market to fulfill commitments with existing customers, but these efforts require a minimal level of resources.

AlSher Titania LLC

Our All Other division consists primarily of our interest in the AlSher Titania joint venture with Sherwin Williams. AlSher Titania LLC was formed in April 2007. This joint venture was formed for the development and production of high quality titanium dioxide pigment for use in paint and coatings and nano titanium dioxide materials for use in a variety of applications including those related to removing contaminants from air and water. Construction of a 100 ton pigment processing pilot plant in connection with the joint venture agreement was completed, and the plant was commissioned in February 2008. Testing under the pilot program commenced, and although results were positive, we suspended full operations in late 2008 after generating and compiling considerable data into an engineering data package. Based on review of this package, its impact on financial projections, and input from our partner, we decided in 2009 not to undertake a more detailed engineering cost study relating to the potential scale up to a significantly larger demonstration plant. Neither Altair nor Sherwin-Williams has expressed a willingness to finance the construction of the development scale plant that would be required as the next major milestone. Throughout 2009, AlSher Titania, Altair and Sherwin-Williams have been actively seeking a partner or partners to participate in this next phase and to buy our interests in AlSher. In May 2009, the services of 5iTech were engaged to assist in this effort. An interested party has been identified and as of December 31, 2009 discussions were underway with this party to try and structure an agreement that satisfies the needs of all parties involved. Because of the length of time that the AlSher Titania assets have been idle and the unwillingness of either party to finance the next phase of development, these assets have been deemed to be impaired and written down to their fair market value as of December 31, 2009.

We are in negotiations with Sherwin-Williams with respect to their potential acquisition of our interest in AlSher Titania LLC.

We have been awarded four U.S. and 15 international patents protecting this technology, all of which have been licensed to AlSher Titania, including: 1) Processing titaniferous ore to titanium dioxide pigment, 2) Processing aqueous titanium chloride solutions to ultrafine titanium dioxide, 3) Processing aqueous titanium solutions to titanium dioxide pigment and 4) Method For Producing Mixed Metal Oxides and Metal Oxide Compounds. The U.S. patents expire in 2020 and 2021. Two new patent applications have also been filed recently.

Nanosensor Initiative

Our All Other division also includes our nanosensors initiative. Since September 2003, pursuant to a teaming/research agreement with Western Michigan University funded by the Department of Energy, we have been engaged in the development of a technology used in the detection of chemical, biological and radiological agents. Late in 2008, we were awarded a $1.8 million Army Research Office ("ARO") grant to continue the nanosensor program. The ARO formalized the contract with us to continue this work in September 2009. Under the terms of this grant and contract, Western Michigan University will receive about half of the grant funds as a subcontractor to Altair. We completed $139,000 of this contract during 2009 and will complete the $1.6 million balance through September 2010. The scope of work associated with this grant further builds upon the accomplishments and progress

made under the prior grants and will focus on a second-generation hand-held device currently being developed using a new as well as a previously developed library of sensing molecules for identification of a multiplicity of agents.

Life Sciences

Our Life Sciences division was focused on the development and marketing of RenazorbTM products, which were designed to support phosphate control in patients with Chronic Kidney Disease, hyperphosphatemia, and high phosphate levels in blood, associated with End Stage Renal Disease. Based on a comprehensive review of the Life Sciences division, its existing and potential products, the resources available, market opportunity and competition, among other considerations, a decision was made in late 2008 to exit the life sciences arena. Consistent with this decision, in August 2009 we announced an agreement in which we assigned ownership of all patent rights associated with Renazorb™ and Renalan™ to Spectrum Pharmaceuticals, Inc. (Nasdaq: SPPI). The patent assignment amends and restates an existing, limited licensing agreement for Renazorb™ and Renalan™ compounds to Spectrum Pharmaceuticals, which was announced in January 2005. Spectrum Pharmaceuticals now has exclusive worldwide rights to Renazorb™, Renalan™, and any related compounds in any field of use.

Under terms of the agreement, Altairnano received $750,000 in Spectrum Pharmaceuticals common stock, restricted until February 2010. In addition to the royalty and other payments we were to receive under the prior license agreement, we will now receive 10% of any fees Spectrum Pharmaceuticals may receive from the sublicensing of Renazorb™, Renalan™, and any related compounds. With the execution of this contract with Spectrum Pharmaceuticals, we have completed our efforts to exit the life sciences market and there are no further Company resources devoted to this area.

Other Nanomaterials Research

In August 2008 we entered into a contract with the Environmental Protection Agency to collaborate in researching the safety and potential health hazards of inhalation of lithium titanate nanoparticles in the worker environment. This is a new area of development with very little specific data upon which to establish recommendations for product handling and design of effective engineering controls in the manufacturing environment. We are committed to producing products that are both safe for their ultimate consumers, and also for the people involved in their manufacture. The study involved the instillation of lithium titanate, as well as control materials, into the respiratory tract of laboratory rats followed by microscopic examination of lung and trachea tissues at various exposure times. As of December 31, 2009 the study was completed and identified no potential health hazards. A final report will be completed in the first half of 2010.

Research and Development Expenses

Total research and development expenses were $10.3 million, $16.9 million and $15.4 million for the years ended December 31, 2009, 2008 and 2007, respectively, while research and development costs funded by customers were $2.9 million, $5.0 million and $5.0 million, for the years ended December 31, 2009, 2008 and 2007, respectively.

Dependence on Significant Customers

During the year ended December 31, 2009, we recorded revenues from three major customers in the Power and Energy Group who accounted for 27%, 15% and 11% of revenues as follows: Office of Naval Research revenues of $1.2 million, Proterra, LLC revenues of $635,000 and BAE Systems of $482,000. Our largest customer in the All Other Division, Spectrum Pharmaceuticals, had revenues of $751,000, or 17% of total revenues.

Government Regulation

Most of our current and proposed activities are subject to a number of federal, state, and local laws and regulations concerning machine and chemical safety and environmental protection. Such laws include, without limitation, the

Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, and the Comprehensive Environmental Response Compensation Liability Act. We are also subject to laws governing the packaging and shipment of some of our products, including our nano lithium titanate batteries. Such laws require that we take steps to, among other things, maintain air and water quality standards, protect threatened, endangered and other species of wildlife and vegetation, preserve certain cultural resources, reclaim processing sites and package potentially flammable materials in appropriate ways and pass stringent government mandated testing standards before shipping our battery products.

Compliance with federal, state, or local laws or regulations represents a small part of our present budget. If we fail to comply with any such laws or regulations, however, a government entity may levy a fine on us or require us to take costly measures to ensure compliance. Any such fine or expenditure may adversely affect our development.

We are committed to complying with and, to our knowledge, are in compliance with, all governmental regulations. We cannot predict the extent to which future legislation and regulation could cause us to incur additional operating expenses, capital expenditures, and/or restrictions and delays in the development of our products and properties.

Government Contracts

A substantial portion of our current revenue is derived from government grants and contracts. The government grants and contracts we enter into are subject to termination or delay of funding at the election of the government. As a result, any termination of such agreements would significantly reduce revenue and the capital to sustain operations and research.

Environmental Regulation and Liability

Any proposed processing operation at our main operating facility in Reno, Nevada or any other property we use will be subject to federal, state, and local environmental laws. Under such laws, we may be jointly and severally liable with prior property owners for the treatment, cleanup, remediation, and/or removal of substances discovered at any other property used by us; to the extent the substances are deemed by the federal and/or state government to be toxic or hazardous. Courts or government agencies may impose liability for, among other things, the improper release, discharge, storage, use, disposal, or transportation of hazardous substances. We use hazardous substances in our testing and operations and, although we employ reasonable practicable safeguards to prevent any liability under applicable laws relating to hazardous substances, companies engaged in materials production are inherently subject to substantial risk that environmental remediation will be required.

Financial Information about Segments and Foreign Sales

Information with respect to assets, net sales, loss from operations and depreciation and amortization for the Power and Energy Group, and All Other Division is presented in Note 18, Business Segment Information, of Notes to Consolidated Financial Statements in Part IV.

Information with respect to foreign and domestic sales and related information is also presented in Note 18, Business Segment Information, of Notes to Consolidated Financial Statements in Part IV.

Subsidiaries

Altair Nanotechnologies Inc. was incorporated under the laws of the province of Ontario, Canada in April 1973 under the name Diversified Mines Limited, which was subsequently changed to Tex-U.S. Oil & Gas Inc. in February 1981, then to Orex Resources Ltd. in November 1986, then to Carlin Gold Company Inc. in July 1988, then to Altair International Gold Inc. in March 1994, then to Altair International Inc. in November 1996 and then to Altair Nanotechnologies Inc. in July 2002. In July 2002, Altair Nanotechnologies Inc. redomesticated from the Ontario Business Corporations Act to Canada's federal corporate statute, the Canada Business Corporations Act.

Altair US Holdings, Inc. was incorporated by Altair in December 2003 for the purpose of facilitating a corporate restructuring and consolidation of all U.S. subsidiaries under a U.S. holding company. At the completion of the corporate restructuring, Fine Gold, MRS, and Altairnano, Inc. (f/k/a Altair Nanomaterials, Inc.) were direct wholly-owned subsidiaries of Altair US Holdings, Inc., while Tennessee Valley Titanium, Inc. previously a wholly-owned subsidiary of MRS, was dissolved on July 7, 2006.

Altair acquired Fine Gold in April 1994. Fine Gold has earned no operating revenues to date. Fine Gold acquired the intellectual property associated with the now defunct Altair jig, a fine particle separation device for use in minerals processing, in 1996. Fine Gold was formally dissolved on December 30, 2008.

Mineral Recovery Systems, Inc., or MRS, was incorporated in April, 1987 and was formerly known as Carlin Gold Company. MRS previously has been involved in the exploration for minerals on unpatented mining claims in Nevada, Oregon and California and the holding of mineral leases in Tennessee. Other than a single mineral lease related to a remediation site in Tennessee, MRS does not continue to hold any properties or other significant leases.

Altair Nanomaterials, Inc. was incorporated in 1998 as a wholly-owned subsidiary of MRS and holds all of our interest in our nanomaterials and titanium dioxide pigment technology and related assets. Altair Nanomaterials Inc. was subsequently renamed Altairnano, Inc. on July 6, 2006.

AlSher Titania LLC was incorporated in April 2007 as a joint venture company which is 70% owned by Altairnano, Inc. This company was formed to combine certain technologies of Altairnano, Inc. with the Sherwin-Williams Company in order to develop, market, and produce titanium dioxide pigment for use in a variety of applications.

Corporate History

Altair Nanotechnologies Inc. was incorporated under the laws of the Province of Ontario, Canada in April 1973 for the purpose of acquiring and exploring mineral properties. It was redomesticated in July 2002 from the Business Corporations Act (Ontario) to the Canada Business Corporations Act, a change that causes Altair to be governed by Canada's federal corporate statute. The change reduced the requirement for resident Canadian directors from 50% to 25% of the board of directors, which gave us greater flexibility in selecting qualified nominees to our board.

During the period from inception through 1994, we acquired and explored multiple mineral properties. In each case, sub-economic mineralization was encountered and the exploration was abandoned.

Beginning in 1996, we entered into leases for mineral property near Camden, Tennessee and owned the rights to the Altair jig. However, we have terminated our leases on all of the Tennessee mineral properties and during 2009 disposed of the remaining centrifugal jigs and abandoned the applicable patents since we were unable to identify an interested party to purchase them.

In November 1999, we acquired all the rights of BHP Minerals International, Inc., or BHP, in the nanomaterials and titanium dioxide pigment technologies and the nanomaterials and titanium dioxide pigment assets from BHP. We are employing the nanomaterials technology as a platform for the sale of contract services, intellectual property licenses and for the production and sale of metal oxide nanoparticles in various applications including our nano lithium titanate batteries.

We have experienced an operating loss in every year of operation. In the fiscal year ended December 31, 2009, we experienced a net loss of $21.3 million.

Employees

Our business is currently managed by Dr. Terry Copeland, President and Chief Executive Officer, Mr. John Fallini, Chief Financial Officer, Dr. Bruce Sabacky, Chief Technology Officer, Mr. Steven Balogh, Vice President Human Resources, Mr. Dan Voelker, Vice President Operations, and Mr. C. Robert Pedraza, Vice President Corporate Strategy and Business Development. We have 99 additional regular employees. As of December 31, 2009, we have employment agreements with Messrs. Copeland, Fallini, Balogh, Pedraza, Sabacky and Voelker.

During 2010, we may hire additional employees, primarily in operations, sales and engineering. Such additional hiring, if it occurs, will be dependent upon business volume growth.

Available Information

We file annual, quarterly and current reports and other information with the SEC. These materials can be inspected and copied at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Copies of these materials may also be obtained by mail at prescribed rates from the SEC's Public Reference Room at the above address. Information about the Public Reference Room can be obtained by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet site that contains reports, proxy information statements, and other information regarding issuers that file electronically with the SEC. The address of the SEC's Internet site is www.sec.gov.

We make available, free of charge on our Internet website located at www.altairnano.com behind the "Investors" tab under "SEC Filings," our most recent Annual Report on Form 10-K, our most recent Quarterly Report on Form 10-Q, any current reports on Form 8-K filed since our most recent Annual Report on Form 10-K and any amendments to such reports as soon as reasonably practicable following the electronic filing of such report with the SEC. In addition, we provide electronic or paper copies of our filings free of charge upon request.

Enforceability of Civil Liabilities against Foreign Persons

We are a Canadian corporation, and two of our directors and our Canadian legal counsel are residents of Canada. Two directors are residents of Dubai. As a result, investors may be unable to effect service of process upon such persons within the United States and may be unable to enforce court judgments against such persons predicated upon civil liability provisions of the U.S. securities laws. It is uncertain whether Canadian or Dubai courts would enforce judgments of U.S. courts obtained against us or such directors, officers or experts predicated upon the civil liability provisions of U.S. securities laws or impose liability in original actions against us or our directors, officers or experts predicated upon U.S. securities laws.

Forward-Looking Statements

This Report contains various forward-looking statements. Such statements can be identified by the use of the forward-looking words "anticipate," "estimate," "project," "likely," "believe," "intend," "expect," or similar words. These statements discuss future expectations, contain projections regarding future developments, operations, or financial conditions, or state other forward-looking information. When considering such forward-looking statements, you should keep in mind the risk factors noted in Item 1A and other cautionary statements throughout this Report and our other filings with the SEC. You should also keep in mind that all forward-looking statements are based on management's existing beliefs about present and future events outside of management's control and on assumptions that may prove to be incorrect. If one or more risks identified in this Report or any other applicable filings materializes, or any other underlying assumptions prove incorrect, our actual results may vary materially from those anticipated, estimated, projected, or intended.

Item 1A. Risk Factors

An investment in our common shares and related derivative securities involves significant risks. You should carefully consider the risks described in this Report before making an investment decision. Any of these risks could materially and adversely affect our business, financial condition or results of operations. In such case, you may lose all or part of your investment. Some factors in this section are forward-looking statements.

We may not be able to raise sufficient capital to expand our operations and meet future obligations.

As of December 31, 2009, we had approximately $18.1 million in cash and cash equivalents. As we take additional steps to enhance our commercialization and marketing efforts, or respond to acquisition and joint venture opportunities, large product orders or potential adverse events, our use of working capital will increase. In any such event, absent a comparatively significant increase in revenue, we will need to raise additional capital in order to sustain our ongoing operations, continue testing and additional development work and, if the trigger is a large product order or similar event, acquire inventory and/or expand and operate facilities for the production of those products.

We may not be able to obtain the amount of additional capital needed or may be forced to pay an extremely high price for capital. Factors affecting the availability and price of capital may include the following:

- market factors affecting the availability and cost of capital generally, including recent increases or decreases in major stock market indexes, the stability of the banking and investment banking systems and general economic stability or instability;
- the price, volatility and trading volume of our common shares;
- our financial results, particularly the amount of revenue we are generating from product sales;
- the amount of our capital needs;
- the market's perception of companies in our line of business;
- the economics of projects being pursued; and
- the market's perception of our ability to execute our business plan and any specific projects identified as uses of proceeds.

If we are unable to obtain sufficient capital or are forced to pay a high price for capital, we may be unable to meet future obligations or adequately exploit existing or future opportunities. If we are unable to obtain sufficient capital in the long run, we may be forced to curtail or discontinue operations.

We may continue to experience significant losses from operations.

We have experienced a net loss in every fiscal year since our inception. Our losses from operations were $22.9 million in 2009, $30.1 million in 2008 and $33.1 million in 2007. Even if we do generate operating income in one or more quarters in the future, subsequent developments in the economy, our industry, customer base, business or cost structure, or an event such as significant litigation or a significant transaction, may cause us to again experience operating losses. We may never become profitable.

Our quarterly operating results have fluctuated significantly in the past and will continue to fluctuate in the future, which could cause our stock price to decline.

Our quarterly operating results have fluctuated significantly in the past, and we believe that they will continue to fluctuate in the future, due to a number of factors, many of which are beyond our control. If in future periods our operating results do not meet the expectations of investors or analysts who choose to follow our company, our stock price may fall. Factors that may affect our quarterly operating results include the following:

- fluctuations in the size and timing of customer orders from one quarter to the next;
- timing of delivery of our services and products;
- additions of new customers or losses of existing customers;
- positive or negative business or financial developments announced by us or our key customers;
- our ability to commercialize and obtain orders for products we are developing;
- costs associated with developing our manufacturing capabilities;
- new product announcements or introductions by our competitors or potential competitors;
- the effect of variations in the market price of our common shares on our equity-based compensation expenses;
- disruptions in the supply of raw materials or components used in the manufacture of our products;
- technology and intellectual property issues associated with our products; and
- general political, social, geopolitical and economic trends and events.

A majority of our revenue has historically been generated from low-margin contract research and development services; if we cannot expand revenues from other products and services, our business will fail.

Historically, a majority of our revenue has come from contract research and development services for businesses and government agencies. During the years ended December 31, 2009, 2008 and 2007, contract service revenues comprised 65%, 87% and 55% respectively, of our operating revenues. Contract services revenue is low margin, or has negative margins, and is unlikely to grow at a rapid pace. Our business plan anticipates revenues from product sales and licensing, both of which have potential for higher margins than contract services and have potential for rapid growth, increasing in coming years. If we are not successful in significantly expanding our revenues, or if we are forced to accept low or negative margins in order to achieve revenue growth, we may fail to reach profitability in the future.

We need to secure orders in the stationary power market in order to establish the viability of our large-scale stationary battery.

To date, substantially all of our orders have been made as part of testing and development arrangements with key customers. In order to establish the market viability of our stationary power battery products, we need to procure additional orders of market scale stationary power batteries in the near future and demonstrate the viability of such batteries. If we are unable to generate one or more significant orders for stationary batteries in the near future, our ability to establish a foothold in this emerging market could be compromised. Any failure to grow our stationary power battery business will significantly harm our ability to increase revenues and become profitable.

We depend upon several sole-source third-party suppliers.

We rely on certain suppliers as the sole-source of certain services, raw materials and other components of our products, including our battery cells. We do not have long-term supply or service agreements with any such suppliers. As a result, the providers of such services and components could terminate or alter the terms of service or supply with little or no advance notice. If our arrangements with any sole-source supplier were terminated, or if such

a supplier failed to provide essential services or deliver essential components on a timely basis, failed to meet our product specifications and/or quality standards, or introduced unacceptable price increases, our production schedule would be delayed, possibly by as long as six months. Any such delay in our production schedule would result in delayed product delivery and may also result in additional production costs, customer losses and litigation.

The most critical sole-source relationship we currently have is for the manufacture of our battery cells. We currently have one supplier that produces all of our battery cells. These cells include our proprietary nano lithium titanate material produced in Reno, Nevada. Our supplier delivers battery cells to our Anderson, Indiana manufacturing facility. We then manufacture battery modules or packs used in electric buses and also manufacture complete multi-megawatt energy storage solutions for the electric grid renewables integration markets. This battery cell supplier is critical to our manufacturing process. We are currently seeking to establish supply agreements with other sources of battery cell manufacturing. Unless and until an agreement with a second supplier is reached, we will remain dependent upon this single supplier.

We are currently experiencing a quality issue with our existing battery cell supplier which has impacted our near-term capacity to build battery products. We are in active discussions with this supplier to identify the root cause of the problem and rectify it. The items in question are under warranty and although we do not expect a material financial impact, the delay in this problem rectification, if it continues for an extended period, may have an adverse impact on the delivery of our products during the first half of 2010. We anticipate having a qualified second source of cell supply in place by the end of 2010.

Continuing adverse economic conditions could reduce, or delay demand for our products.

The financial markets and general economic conditions are still very weak. Our products are targeted primarily at large power producers worldwide, the U.S. and British military, military contractors and bus manufacturers. Due to declining revenues and concerns about liquidity, companies and branches of the military in our target markets have reduced, delayed or eliminated many research and development initiatives, including those related to energy storage. This reduction or delay in development spending by key customers is hindering our development and production efforts and will continue to do so until development spending increases from current depressed levels.

Our patents and other protective measures may not adequately protect our proprietary intellectual property, and we may be infringing on the rights of others.

We regard our intellectual property, particularly our proprietary rights in our nano lithium titanate technology, as critical to our success. We have received various patents, and filed other patent applications, for various applications and aspects of our nano lithium titanate technology and other intellectual property. In addition, we generally enter into confidentiality and invention agreements with our employees and consultants. Such patents and agreements and various other measures we take to protect our intellectual property from use by others may not be effective for various reasons, including the following:

- Our pending patent applications may not be granted for various reasons, including the existence of conflicting patents or defects in our applications, if there was in existence relevant prior art or the invention was deemed by the examiner to be obvious to a person skilled in the art whether or not there were other existing patents;

- The patents we have been granted may be challenged, invalidated or circumvented because of the pre-existence of similar patented or unpatented intellectual property rights or for other reasons;

- Parties to the confidentiality and invention agreements may have such agreements declared unenforceable or, even if the agreements are enforceable, may breach such agreements;

- The costs associated with enforcing patents, confidentiality and invention agreements or other intellectual property rights may make aggressive enforcement cost prohibitive;

- Even if we enforce our rights aggressively, injunctions, fines and other penalties may be insufficient to deter violations of our intellectual property rights; and

- Other persons may independently develop proprietary information and techniques that, although functionally equivalent or superior to our intellectual proprietary information and techniques, do not breach our patented or unpatented proprietary rights.

Our inability to protect our proprietary intellectual property rights or gain a competitive advantage from such rights could harm our ability to generate revenues and, as a result, our business and operations.

In addition, we may inadvertently be infringing on the proprietary rights of other persons and may be required to obtain licenses to certain intellectual property or other proprietary rights from third parties. Such licenses or proprietary rights may not be made available under acceptable terms, if at all. If we do not obtain required licenses or proprietary rights, we could encounter delays in product development or find that the development or sale of products requiring such licenses is foreclosed.

The commercialization of many of our products is dependent upon the efforts of commercial partners and other third parties over which we have no or little control.

The commercialization of our principal products requires the cooperation and efforts of commercial partners and customers. For example, because completion and testing of our large-scale stationary battery packs for power suppliers requires input from utilities and connection to a power network, commercialization of such battery packs can only be done in conjunction with a power or utility company. The commercialization of military, transportation and other applications of our technology is also dependent, in part, upon the expertise, resources and efforts of our commercial partners. This presents certain risks, including the following:

- we may not be able to enter into development, licensing, supply and other agreements with commercial partners with appropriate resources, technology and expertise on reasonable terms or at all;

- our commercial partners may not place the same priority on a project as we do, may fail to honor contractual commitments, may not have the level of resources, expertise, market strength or other characteristics necessary for the success of the project, may dedicate only limited resources to, and/or may abandon, a development project for reasons, including reasons such as a shift in corporate focus, unrelated to its merits;

- our commercial partners may be in the early stages of development and may not have sufficient liquidity to invest in joint development projects, expand their businesses and purchase our products as expected or honor contractual commitments;

- our commercial partners may terminate joint testing, development or marketing projects on the merits of the projects for various reasons, including determinations that a project is not feasible, cost-effective or likely to lead to a marketable end product;

- at various stages in the testing, development, marketing or production process, we may have disputes with our commercial partners, which may inhibit development, lead to an abandonment of the project or have other negative consequences; and

- even if the commercialization and marketing of jointly developed products is successful, our revenue share may be limited and may not exceed our associated development and operating costs.

As a result of the actions or omissions of our commercial partners, or our inability to identify and enter into suitable arrangements with qualified commercial partners, we may be unable to commercialize apparently viable products on a timely and cost-effective basis, or at all.

Interest in our nano lithium titanate batteries is affected by energy supply and pricing, political events, popular consciousness and other factors over which we have no control.

Currently, our marketing and development efforts for our batteries and battery materials are focused primarily on stationary power, transportation and military applications. In the transportation and military markets, batteries containing our nano lithium titanate materials are designed to replace or supplement gasoline and diesel engines. In the stationary power applications, our batteries are designed to conserve and regulate the stable supply of electricity, including from renewable sources. The interest of our potential customers and business partners in our products and services is affected by a number of factors beyond our control, including:

- economic conditions and capital financing and liquidity constraints;
- short-term and long-term trends in the supply and price of gasoline, diesel, coal and other fuels;
- the anticipated or actual granting or elimination by governments of tax and other financial incentives favoring electric or hybrid electric vehicles and renewable energy production;
- the ability of the various regulatory bodies to define the rules and procedures under which this new technology can be deployed into the electric grid;
- the anticipated or actual funding, or elimination of funding, for programs that support renewable energy programs, electric grid improvements, certain military electric vehicle initiatives and related programs;
- changes in public and investor interest for financial and/or environmental reasons, in supporting or adopting alternatives to gasoline and diesel for transportation and other purposes;
- the overall economic environment and the availability of credit to assist customers in purchasing our large battery systems;
- the expansion or contraction of private and public research and development budgets as a result of global and U.S. economic trends; and
- the speed of incorporation of renewable energy generating sources into the electric grid.

Adverse trends in one or more of these factors may inhibit our ability to commercialize our products and expand revenues from our battery materials and batteries.

Our nano lithium titanate battery materials and battery business is currently dependent upon a few customers and potential customers, which presents various risks.

Our nano lithium titanate battery materials and battery business is dependent upon a few current or potential customers, including the U.S. government, a small number of power producers and smaller companies developing electric or hybrid electric buses. In addition, most of these customers are, or are expected to be development partners who are subsidizing the research and development of products for which they may be the sole, or one of a few, potential purchasers. As a result of the small number of potential customers and partners, our existing or potential customers and partners may have significant leverage on pricing terms, exclusivity terms and other economic and noneconomic terms. This may harm our attempts to sell products at prices that reflect desired gross margins. In addition, the decision by a single customer to abandon use or development of a product, or budget cutbacks and other events harming the ability of a single customer to continue to purchase products or continue development may significantly harm both our financial results and the development track of one or more products.

If we acquire or merge with other companies and we are unable to integrate them with our business, or we do not realize the anticipated financial and strategic goals for any of these transactions, our financial performance may be impaired.

As part of our growth strategy, we routinely consider acquiring or merging with other companies that we believe are strategic to our business. We do not have extensive experience in conducting diligence on, evaluating, purchasing or integrating new businesses or technologies, and if we do succeed in acquiring or investing in a company or technology, we will be exposed to a number of risks, including:

- we may find that the transaction does not further our business strategy, that we overpaid for the company or its technology or that the economic conditions underlying our transaction decision have changed;

- we may have difficulty integrating the assets, technologies, operations or personnel of a company we have acquired or merged with, or retaining and integrating key personnel;

- our ongoing business and management's attention may be disrupted or diverted by transition or integration issues and the complexity of managing geographically or culturally diverse enterprises;

- we may encounter difficulty entering and competing in new product or geographic markets or increased competition, including price competition or intellectual property litigation; and

- we may experience significant problems or liabilities associated with product quality, technology and legal contingencies relating to the integrated business or technology, such as intellectual property or employment matters.

In addition, from time to time we may enter into negotiations for acquisitions, mergers or other transactions that are not ultimately consummated. These negotiations could result in significant diversion of management time, as well as substantial out-of-pocket costs. If we were to proceed with one or more significant acquisitions or other transactions in which the consideration included cash, we could be required to use a substantial portion of our available cash. To the extent we issue shares of capital stock or other rights to purchase capital stock, including options and warrants, existing stockholders would be diluted. In addition, acquisitions or other transactions may result in the incurrence of debt, large one-time write-offs, such as acquired in-process research and development costs, and restructuring charges.

We intend to expand our operations and increase our expenditures in an effort to grow our business. If we are unable to achieve or manage significant growth and expansion, or if our business does not grow as we expect, our operating results may suffer.

During the past several years, we have increased our research and development expenditures in an attempt to accelerate the commercialization of certain products, particularly our nano lithium titanate batteries. Our business plan anticipates continued expenditure on development, manufacturing and other growth initiatives. We may fail to achieve significant growth despite such expenditures. If achieved, significant growth would place increased demands on our management, accounting systems, quality control and internal controls. We may be unable to expand associated resources and refine associated systems fast enough to keep pace with expansion, especially as we expand into multiple facilities at distant locations. If we fail to ensure that our management, control and other systems keep pace with growth, we may experience a decline in the effectiveness and focus of our management team, problems with timely or accurate reporting, issues with costs and quality controls and other problems associated with a failure to manage rapid growth, all of which would harm our results of operations.

Our competitors have more resources than we do, and may be supported by more prominent partners, which may give them a competitive advantage.

We have limited financial, personnel and other resources and, because of our early stage of development, have limited access to capital. We compete or may compete against entities that are much larger than we are, have more extensive resources than we do and have an established reputation and operating history. In addition, certain of our early stage competitors, including A123 Systems, are partnered with, associated with or supported by larger business or financial partners. This may increase their ability to raise capital, attract media attention, develop products and attract customers despite their short operating history and small size. Because of their size, resources, reputation and history (or that of their business and financial partners) certain of our competitors may be able to exploit acquisition, development and joint venture opportunities more rapidly, easily or thoroughly than we can. In addition, potential customers may choose to do business with our more established competitors, without regard to the comparative quality of our products, because of their perception that our competitors are more stable, are more likely to complete various projects, are more likely to continue as a going concern and lend greater credibility to any joint venture.

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Our government grants and contracts are subject to termination or delays by the government.

A substantial portion of our current revenue is derived from government grants and contracts. These government grants and contracts are subject to termination or delay of funding at the election of the government. Termination or delayed funding of such agreements by the government would significantly reduce our revenue and inhibit our ability to sustain our operations and research.

Sherwin-Williams may be unable to find a new investor to participate in AlSher Titania LLC, and we may consequently terminate the joint venture disposing of its remaining assets.

We are currently working with Sherwin-Williams to identify an interested third party to invest in AlSher Titania LLC and undertake the next phase in the proposed development of our titanium dioxide pigment manufacturing process, which is the construction of an approximately 3,000 ton per year demonstration plant. Neither we nor Sherwin-Williams have indicated a willingness to fund this next phase of development. We are in negotiations with Sherwin-Williams with respect to their potential acquisition of our interest in AlSher Titania LLC. If the operation of AlSher Titania LLC is terminated, it is unlikely that we will realize any material revenue from its titanium dioxide pigment production process.

As manufacturing becomes a larger part of our operations, we will become exposed to accompanying risks and liabilities.

We have not produced any products on a sustained commercial basis. In-house or outsourced manufacturing is expected to become an increasingly significant part of our business over the next few years. As a result, we expect to become increasingly subject to various risks associated with the manufacturing and supply of products, including the following:

- If we fail to supply products in accordance with contractual terms, including terms related to time of delivery and performance specifications, we may be required to repair or replace defective products and may become liable for direct, special, consequential and other damages, even if manufacturing or delivery was outsourced;

- Raw materials used in the manufacturing process, labor and other key inputs may become scarce and expensive, causing our costs to exceed cost projections and associated revenues;

- Manufacturing processes typically involve large machinery, fuels and chemicals, any or all of which may lead to accidents involving bodily harm, destruction of facilities and environmental contamination and associated liabilities;

- As our manufacturing operations expand, we expect that a significant portion of our manufacturing will be done overseas, either by third-party contractors or in a plant owned by the company. Any manufacturing done overseas presents risks associated with quality control, currency exchange rates, foreign laws and customs, timing and loss risks associated with overseas transportation and potential adverse changes in the political, legal and social environment in the host county; and

- We may have made, and may be required to make, representations as to our right to supply and/or license intellectual property and to our compliance with laws. Such representations are usually supported by indemnification provisions requiring us to defend our customers and otherwise make them whole if we license or supply products that infringe on third-party technologies or violate government regulations.

Any failure to adequately manage risks associated with the manufacture and supply of materials and products could lead to losses (or small gross profits) from that segment of our business and/or significant liabilities, which would harm our business, operations and financial condition.

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Our past and future operations may lead to substantial environmental liability.

Virtually any prior or future use of our nanomaterials and titanium dioxide pigment technology is subject to federal, state and local environmental laws. Under such laws, we may be jointly and severally liable with prior property owners for the treatment, cleanup, remediation and/or removal of any hazardous substances discovered at any property we use. In addition, courts or government agencies may impose liability for, among other things, the improper release, discharge, storage, use, disposal or transportation of hazardous substances. If we incur any significant environmental liabilities, our ability to execute our business plan and our financial condition would be harmed.

Certain of our experts and directors reside in Canada or Dubai and may be able to avoid civil liability.

We are a Canadian corporation, and two of our directors and our Canadian legal counsel are residents of Canada. Two directors are residents of Dubai. As a result, investors may be unable to effect service of process upon such persons within the United States and may be unable to enforce court judgments against such persons predicated upon civil liability provisions of the U.S. securities laws. It is uncertain whether Canadian or Dubai courts would enforce judgments of U.S. courts obtained against us or such directors, officers or experts predicated upon the civil liability provisions of U.S. securities laws or impose liability in original actions against us or our directors, officers or experts predicated upon U.S. securities laws.

We are dependent on key personnel.

Our continued success will depend, to a significant extent, on the services of our executive management team and certain key scientists and engineers. We do not have key man insurance on any of these individuals. Nor do we have agreements requiring any of our key personnel to remain with our company. The loss or unavailability of any or all of these individuals could harm our ability to execute our business plan, maintain important business relationships and complete certain product development initiatives, which would harm our business.

We may issue substantial amounts of additional shares without stockholder approval.

Our articles of incorporation authorize the issuance of an unlimited number of common shares that may be issued without any action or approval by our stockholders. In addition, we have various stock option plans that have potential for diluting the ownership interests of our stockholders. The issuance of any additional common shares would further dilute the percentage ownership of our company held by existing stockholders.

The market price of our common shares is highly volatile and may increase or decrease dramatically at any time.

The market price of our common shares is highly volatile. Our stock price may change dramatically as the result of announcements of product developments, new products or innovations by us or our competitors, uncertainty regarding the viability of our technology or our product initiatives, significant customer contracts, significant litigation or other factors or events that would be expected to affect our business, financial condition, results of operations and future prospects.

The market price for our common shares may be affected by various factors not directly related to our business or future prospects, including the following:

- intentional manipulation of our stock price by existing or future shareholders or a reaction by investors to trends in our stock rather than the fundamentals of our business;

- a single acquisition or disposition, or several related acquisitions or dispositions, of a large number of our shares, including by short sellers covering their position;

- the interest of the market in our business sector, without regard to our financial condition, results of operations or business prospects;

- positive or negative statements or projections about our company or our industry, by analysts, stock gurus and other persons;

- the adoption of governmental regulations or government grant programs and similar developments in the United States or abroad that may enhance or detract from our ability to offer our products and services or affect our cost structure; and

- economic and other external market factors, such as a general decline in market prices due to poor economic conditions, investor distrust or a financial crisis.

We may be delisted from the NASDAQ Capital Market if the price of our common shares does not remain above $1.00 per share.

Under NASDAQ rules, a stock listed on NASDAQ Capital Market must maintain a minimum bid price of at least $1.00 per share. On December 22, 2009, we received a letter from NASDAQ indicating that the bid price of our common shares had closed below the minimum $1.00 per share required for continued listing under NASDAQ Marketplace Rule 5550(a)(2). NASDAQ stated in its letter that, in accordance with Marketplace Rule 5810(c)(3)(A), we have been provided an initial period of 180 calendar days, or until June 21, 2010, to regain compliance with the minimum bid requirement. The letter also states that if at any time before June 21, 2010, the bid price of our common shares closes at $1.00 per share or more for a minimum of 10 consecutive business days, the NASDAQ staff will provide us with written notification that we have achieved compliance with the minimum bid requirement. At the close of the grace period, if we have not regained compliance, we may be eligible for an additional grace period of 180 days, if we meet the initial listing standards, with the exception of bid price, for the NASDAQ Capital Market. If we are not eligible for an additional grace period, we will be delisted.

Following any such delisting, our common shares would likely be eligible for quotation on the OTC Bulletin Board or other quotation service. Nonetheless, even if our common shares are quoted on an alternative quotation service, the fact of being delisted from the NASDAQ Capital Market will likely harm the price and trading volume for our common shares, as many institutional shareholders and advisors will not trade in shares listed on the OTC Bulletin Board. Once delisted, our common shares would not be eligible for relisting on the NASDAQ Capital Market until, among other things, our common shares traded at or above $4.00 per share.

We have never declared a cash dividend and do not intend to declare a cash dividend in the foreseeable future.

We have never declared or paid cash dividends on our common shares. We currently intend to retain any future earnings, if any, for use in our business and, therefore, do not anticipate paying dividends on our common shares in the foreseeable future.

We are subject to various regulatory regimes, and may be adversely affected by inquiries, investigations and allegations that we have not complied with governing rules and laws.

In light of our status as a public company and our lines of business, we are subject to a variety of laws and regulatory regimes in addition to those applicable to all businesses generally. For example, we are subject to the reporting requirements applicable to Canadian and United States reporting issuers, such as the Sarbanes-Oxley Act of 2002, the rules of the NASDAQ Capital Market and certain state and provincial securities laws. We are also subject to state and federal environmental, health and safety laws, and rules governing department of defense contracts. Such laws and rules change frequently and are often complex. In connection with such laws, we are subject to periodic audits, inquiries and investigations. Any such audits, inquiries and investigations may divert considerable financial and human resources and adversely affect the execution of our business plan.

Through such audits, inquiries and investigations, we or a regulator may determine that we are out of compliance with one or more governing rules or laws. Remedying such non-compliance diverts additional financial and human resources. In addition, in the future, we may be subject to a formal charge or determination that we have materially violated a governing law, rule or regulation. We may also be subject to lawsuits as a result of alleged violation of the securities laws or governing corporate laws. Any charge or allegation, and particularly any determination, that we had materially violated a governing law would harm our ability to enter into business relationships, recruit qualified officers and employees and raise capital.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our corporate headquarters is located at 204 Edison Way, Reno, Nevada 89502 in a building we purchased in August 2002. Our nanomaterials and titanium dioxide pigment assets are located in this building, which contains approximately 85,000 square feet of production, laboratory, testing and office space. We had pledged our corporate headquarters and associated land to secure a promissory note we issued to BHP Minerals International, Inc. in the amount of $3.0 million, at an interest rate of 7%. This note was paid in full in January 2010 and the assignment has been released.

We are party to a lease agreement effective as of July 1, 2007, for 30,000 square feet of space in the Flagship Business Accelerator Building located at 3019 Enterprise Drive, Anderson, Indiana. The space is used for the production of prototype batteries and battery systems. The lease is for an initial term of five years with a single one-year renewal term. On March 1, 2008, we signed an addendum to this lease that increased the space leased by 40,000 square feet and set forth corresponding adjustments in our rent. Total rent to be paid over the five year term including real estate taxes is $1.3 million. In addition to the Flagship lease, we rent another 2,210 square feet of space at 1305 W. 29th Street, Anderson, Indiana, on a month to month basis.

We also maintain a registered office at 360 Bay Street, Suite 500, Toronto, Ontario M5H 2V6. We do not lease any space for, or conduct any operations out of, the Toronto, Ontario registered office.

We have terminated the mineral leases on all but the primary lease for our Tennessee mineral property that is subject to remediation. Remediation work on the properties has been completed and reviewed by the applicable regulatory authorities. Final inspections and full release is expected to occur in the first half of 2010. Future remediation costs are not expected to be significant.

Item 3. Legal Proceedings

In 2009 we filed a collection action against Designline International Holdings, LLC in the Wake County District Court of North Carolina under Case Number 09-CVD-17792 for collection of $354,000 for payment of product and services previously provided by us. The matter was subsequently transferred to the State of North Carolina, County of Mecklenburg, General Court of Justice, Superior Court Division, under Case Number 09 CvS 30107. On January 15, 2010, Designline International Holdings, LLC filed its answer denying our allegations and filing counterclaims alleging breach of contract, breach of implied warranty of merchantability and breach of implied warranty of fitness for a particular purpose in response to our complaint. We have not yet filed our answer to their counterclaims. The matter remains pending. As of December 31, 2009, we believe we will prevail in this collection action.

Beside the matter stated above we are not a party to any pending or threatened litigation, the outcome of which could be expected to have a material adverse effect upon our financial condition, our results of operations or cash flows.

Item 4. Reserved.

PART II

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

Market Price

Our common shares are traded on the NASDAQ Capital Market under the symbol "ALTI." The following table sets forth, during the periods indicated, the high and low sales prices for our common shares, as reported on our principal trading market.

Fiscal Year Ended December 31, 2009	Low	High
1st Quarter	$ 0.60	$ 1.28
2nd Quarter	$ 0.86	$ 1.55
3rd Quarter	$ 0.79	$ 1.45
4th Quarter	$ 0.80	$ 1.18

Fiscal Year Ended December 31, 2008	Low	High
1st Quarter	$ 1.97	$ 4.81
2nd Quarter	$ 1.63	$ 2.73
3rd Quarter	$ 1.45	$ 2.94
4th Quarter	$ 0.75	$ 2.40

The last sale price of our common shares, as reported on the NASDAQ Capital Market on March 5, 2010, was $0.765 per share.

Outstanding Shares and Number of Shareholders

As of March 5, 2010, the number of common shares outstanding was 105,400,728 held by approximately 427 holders of record. In addition, as of the same date, we have reserved 6,287,495 common shares for issuance upon exercise of options that have been, or may be, granted under our employee stock option plans and 7,028,440 common shares for issuance upon exercise of outstanding warrants.

Dividends

We have never declared or paid cash dividends on our common shares. Moreover, we currently intend to retain any future earnings for use in our business and, therefore, do not anticipate paying any dividends on our common shares in the foreseeable future.

Securities Authorized for Issuance under Equity Compensation Plans

We have stock option plans administered by the Compensation Committee of our Board of Directors that provide for the granting of options to employees, officers, directors and other service providers of the Company. Security holders have approved all option plans. The following table sets forth certain information with respect to compensation plans under which equity securities are authorized for issuance at December 31, 2009:

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and 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	4,920,209	$2.396	4,107,317
Equity compensation plans not approved by security holders	None	N/A	None
Total	4,920,209	$2.396	4,107,317

Recent Sales of Unregistered Securities

Except as previously reported, we did not sell any securities in transactions that were not registered under the Securities Act in the quarter ended December 31, 2009.

Transfer Agent and Registrar

The Transfer Agent and Registrar for our common shares is Equity Transfer Services, Inc., 200 University Ave, Suite 400, Toronto, Ontario, M5H 4H2.

Certain Canadian Federal Income Tax Considerations

Dividends paid on our common shares which are owned by non-residents of Canada (for purposes of the Income Tax Act (Canada)(the "Tax Act")(a "Non-Resident") will be subject to Canadian withholding tax generally at the rate of 25%. However, Article X of the Canada -United States Income Tax Convention (1980), as amended, (the "Treaty") generally limits the rate of withholding tax on dividends paid to United States residents to 15%. The Treaty further limits the rate of withholding tax to 5% if the beneficial owner of the dividends is a U.S. company that owns at least 10% of the voting shares of the Company.

A capital gain realized on the disposition of our common shares by a Non-Resident will generally not be subject to tax under the Tax Act provided the shares are not "taxable Canadian property" of the Non-Resident. In general, our common shares will not be taxable Canadian property of a Non-Resident at a particular time provided that: (i) such shares are listed on a "designated stock exchange" (which currently includes NASDAQ) for the purposes of the Tax Act at the time of disposition; and (ii) at no time during the 60 month period immediately preceding the disposition of such shares were 25% or more of the issued shares of any class or series of the our capital stock owned by the Non-Resident, by persons with whom the Non-Resident did not deal at arm's length, or by the Non-Resident together with such persons.

This summary is of a general nature only and is not intended to be, nor shall be construed to be, legal or tax advice to any particular Non-Resident. Accordingly, Non-Resident holders of our common shares are urged to consult their own tax advisors for advice with regard to their particular circumstances.

Item 6. Selected Financial Data

The following table sets forth selected consolidated financial information with respect to the Company and its subsidiaries for the periods indicated. The data is derived from financial statements prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP"). The selected financial data should be read in conjunction with the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and accompanying notes included herein. All amounts are stated in thousands of U.S. dollars.

For the Year Ended December 31,	2009	2008	2007	2006	2005
STATEMENTS OF OPERATIONS					
Revenues	$4,371	$5,726	$9,108	$4,324	$2,806
Operating expenses	$(27,232)	$(35,852)	$(42,176)	$(22,005)	$(13,288)
Interest expense	$(107)	$(97)	$(134)	$(172)	$(207)
Interest income	$188	$982	$1,101	$655	$750
(Loss) / gain on foreign exchange	$(2)	$(10)	$(1)	$(2)	$2
Realized gain (loss) on investment	$851	$(89)	$-	$-	$-
Loss from continuing operations before non-controlling interest’s share	$(21,931)	$(29,340)	$(32,102)	$(17,200)	$(9,937)
Non-controlling interest’s share	$619	$272	$631	$-	$-
Net loss	$(21,312)	$(29,068)	$(31,471)	$(17,200)	$(9,937)
Basic and diluted net loss per common share	$(0.21)	$(0.34)	$(0.45)	$(0.29)	$(0.17)
Cash dividends declared per common share	$-	$-	$-	$-	$-
BALANCE SHEET DATA					
Working capital	$22,118	$26,067	$39,573	$25,928	$21,483
Total assets	$40,317	$48,071	$73,859	$43,121	$33,464
Current liabilities	$(4,055)	$(3,647)	$(14,329)	$(3,500)	$(2,428)
Long-term obligations	$(37)	$(608)	$(1,200)	$(1,800)	$(2,400)
Non-controlling interest in subsidiary	$(541)	$(1,098)	$(1,369)	$-	$-
Net shareholders' equity	$(35,684)	$(42,718)	$(56,961)	$(37,821)	$(28,636)

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

The following discussion should be read in conjunction with the consolidated financial statements and notes thereto.

Overview

We are a Canadian corporation, with principal assets and operations in the United States, whose primary business is developing, manufacturing and selling our nano-lithium titanate battery cells, batteries and battery packs and providing related design, installation and test services. Our primary focus is marketing our large-scale energy storage solutions to power companies and electric grid operators throughout the world. In addition, we market our batteries to electric and hybrid-electric bus manufacturers.

In our 2008 strategic review we determined that the specific strategic efforts we should focus on going forward are: the provision of frequency regulation and renewables integration in the electric grid, the electrification of the mass-transit portion of the automotive market, and similar opportunities in the military market where we can leverage the specific application to support our overall technology development efforts. We believe that these are multi-billion dollar emerging markets with room for a number of successful suppliers. At the present time, we perceive no dominant provider and we believe that as a result of our significant differentiated product attributes, the overall strength of our management team, and the recognition we are receiving in the marketplace, that we have a very good chance of becoming one of the successful suppliers. Our proprietary technology platform gives our products a number of unique, highly sought after attributes that clearly differentiate our products from their alternatives. Included in these attributes are substantially longer cycle and calendar lives, a rapid recharge time, the ability to provide instantaneous high power, a wide operating temperature range and increased operational safety.

2009 has been a transition year as we have discontinued the pursuit of grants and contracts in the life sciences and performance materials markets to focus on the power and energy systems market. We expect that the first half of 2010 will continue in this transition mode until we start to gain traction in the sale of our various battery products. Although we had excellent research and a number of prototype battery products in early 2009, there is still considerable work required on our part to turn these promising prototypes into commercially available products. That work continued in earnest throughout 2009, and we are now in a position to actively sell our products. Future revenues will depend on the success of these efforts, the results of our other research and development work, and the success of Spectrum Pharmaceuticals in the further development and market introduction of products based on RenazorbTM and RenalanTM for which we will receive future milestone and royalty payments.

We also provide contract research services on select projects where we can utilize our resources to develop intellectual property and/or new products and technology. Although contract services revenue comprised a significant portion of our total revenues in recent years accounting for 65%, 87%, and 55%, respectively in 2009, 2008 and 2007, we expect this percentage to diminish as our battery sales expand.

Our revenues have been, and we expect them to continue to be, generated by license fees, product sales, commercial collaborations, and government contracts and grants. We currently have agreements in place to (1) provide research to further develop battery electrode materials and nanosensors, (2) participate in a joint venture combining the technologies of the partners in order to develop and produce titanium dioxide pigment for use in a variety of applications, although we are actively working with Sherwin-Williams to sell our interests in this joint venture, (3) develop a suite of energy storage solutions for the stationary power market, (4) develop battery backup power systems for naval applications, and (5) provide battery modules to a U.S. based bus manufacturer. We have made product sales consisting principally of battery packs and nano lithium titanate cells.

General Outlook

We have generated net losses in each fiscal year since incorporation. Revenues from commercial collaborations and contracts and grants decreased $2.1 million from $5 million in 2008 to $2.9 million in 2009. We completed most of our customer collaboration and grant related projects during 2008 and did not seek to renew them, with the major exception being the U.S. Office of Naval Research work. Revenue from product sales increased modestly from $757,000 in 2008 to $761,000 in 2009 as we began to shift our focus out of the low margin grants and customer collaborations opportunities into product sales.

Our current focus is on the development of products in energy storage that we anticipate will eventually bring a substantial amount of higher-margin revenues from product sales. We expect our nano lithium titanate batteries to be the source of such higher-margin revenues. Consequently, during 2009, we continued to expand the scope of our Power and Energy Group by hiring additional staff and increasing temporary personnel to handle the conversion from a prototype to a commercial product, adding additional sales and marketing personnel to focus on this market, and acquiring test and production equipment.

As we attempt to significantly expand our revenues from licensing, manufacturing, sales and other sources, some of the key near-term events that will affect our long-term success prospects include the following:

- Based on the success of the 2008 AES 2 MW frequency regulation trial, as validated in the KEMA, Inc. analysis and report, we have experienced a substantial amount of interest in the product from other entities and are in active sales development discussions with a number of them.

- In August, 2009, we signed a contract with Proterra, LLC, a Golden, Colorado based leading designer and manufacturer of heavy-duty drive systems, energy storage systems, vehicle control systems and transit buses to sell them battery modules for their all electric and hybrid electric buses. Proterra's systems are scalable to all forms of commercial buses and Class 6-8 trucks. As they continue to scale their business we anticipate developing a mutually beneficial long-term relationship with them.

- Based on the demonstrated success of our battery in the Proterra bus application, we have also entered into discussions with a number of other bus manufacturers or systems integrators regarding the purchase of our battery products for their respective applications.

- Our efforts with the U.S. military and the British Ministry of Defense continue to move forward on several different projects. Initial testing phases on each project with the U.S. Army, U.S. Navy and the British Ministry of Defense have all completed and ongoing government funding for 2010 for the U.S. Navy is already in place. Although the results of the work done in the other areas were equally well received, ongoing work is dependent on government funding in each country. With the overall state of the economy still being very weak, this funding is uncertain at the current time.

- Spectrum is continuing its product development work and pre-clinical testing with the intention of filing an Investigational New Drug application with the U.S. Food and Drug Administration in 2010. During 2009, Altairnano assisted Spectrum in selection of a third-party manufacturer of the RenazorbTM and RenalanTM active pharmaceutical ingredient. Spectrum continues to enlist Altairnano analytical resources for development work. Pre-clinical trial work still lies ahead for the RenazorbTM-based drugs.

Although it is not essential that all of these projects be successful in order to permit substantial long-term revenue growth, we believe that full commercialization of several of our battery applications will be necessary in order to expand our revenues enough to create a likelihood of our becoming profitable in the long term. We remain optimistic with respect to our current key projects, as well as others we are pursuing, but recognize that, with respect to each, there are development, marketing, partnering and other risks to be overcome.

An important consideration as we begin to grow our revenue stream is to ensure that we have access to the various components and raw material we need to manufacture and then assemble our various products. With a small product volume, having multiple suppliers for each component is not practical, but is now becoming much more important to us. During 2009, we began to identify and qualify additional suppliers or manufacturers for our critical components. While those efforts have progressed, the most critical sole-source relationship we currently have is for the manufacture of our battery cells. We currently have one supplier that produces all of our battery cells. These cells include our proprietary nano lithium titanate material produced in Reno, Nevada. Our supplier delivers battery cells to our Anderson, Indiana manufacturing facility. We then manufacture battery packs used in electric buses and also manufacture complete megawatt scale energy storage solutions for the electric grid markets. This battery cell supplier is critical to our manufacturing process. We are currently seeking to establish supply agreements with other sources of battery cell manufacturing. We expect to have an agreement with a second battery cell supplier by the end of 2010.

We are currently experiencing a quality issue with the critical cell manufacturing supplier described above that has impacted our immediate ability to supply product to our customers. We are in active discussions with this supplier to identify the root cause of the problem and rectify it. The items in question are under warranty and although we do not expect a material financial impact, the delay in the problem rectification, if it continues for an extended period, may have an adverse impact on the delivery of our products during the first half of 2010.

Our Operating Divisions

For nearly all of 2009, we were organized into two divisions: a Power and Energy Group and an All Other division. During 2008, we operated as three separate divisions, including a Performance Materials Division and a Life Sciences Division in addition to the Power and Energy Group. Based on the results of a comprehensive review of all the Company's activities, strengths, weaknesses, competitive opportunities and the overall market that was conducted during 2008, a decision was made to focus the Company's future efforts primarily in the Power and Energy arena. As a result, efforts began in late 2008 and early 2009 to eliminate or sell the Company's assets and efforts in the Life Sciences and Performance Materials divisions. As of December 31, 2009, we have ceased all operations in the Life Sciences area and the assets formerly dedicated to that market either redeployed into the Power and Energy Group or are planned to be disposed of. There is still a small amount of residual work being done in the Performance Materials market to fulfill commitments with existing customers, but these efforts require a minimal level of resources. We are also taking steps to dispose of our interest in the AlSher Titania joint venture, including seeking a new partner to fund the next stage of development and we are in negotiations with Sherwin-Williams with respect to their potential acquisition of our interest in AlSher Titania LLC. While we continue to service existing customers and agreements relating to other types of our previously developed products, our research and development, production and marketing efforts are now focused solely on the Power and Energy Group.

Liquidity and Capital Resources

Current and Expected Liquidity

As of December 31, 2009, we had cash and short-term investments totaling $18.1 million. Net cash used in operating activities for the year ended December 31, 2009 totaled $23.6 million compared to $30.1 million for the year ended December 31, 2008. The decrease in cash used in operating activities for 2009 compared to 2008 primarily reflects payments of approximately $5.5 million relating to certain significant payments we made in the first quarter of 2008, which included: $2.4 million of commission and expenses paid to the placement agent in connection with our sale of common shares in November 2007; $1.8 million paid in connection with the 2007 bonus plan; and $1.3 million of raw materials purchases made in 2007 in anticipation of receipt of the next sales order from Phoenix under the 2007 purchase agreement were paid in the first quarter of 2008. Cash expended on research and development activities decreased by approximately $2 million in the first quarter of 2009 primarily attributable to the completion of customer contracts and grants in 2008 (AES Energy Storage LLC, Elanco Animal Health, and the Department of Energy) and the realignment of resources relating to the shift in focus from the Performance Materials and Life Sciences segments to the Power and Energy Group. Additionally, no bonus payments were made in the first quarter of 2010, as the bonus targets for 2009 were not achieved.

In May 2009, we completed a sale of 11,994,469 common shares of the Company for net proceeds to the Company of $12.8 million. In July 2009, we sold our 240,000 shares of Spectrum Pharmaceutical common stock for cash proceeds of $2.0 million. These items plus other smaller cash inflows related to notes payable, interest, long-term debt and other items increased cash by a total of $14.7 million.

Over the long term, we anticipate substantially increasing revenues by entering into new contracts and increasing product sales in the stationary power and electric bus markets. However, this increase in revenues will be dependent on our ability to transition our stationary power products from prototypes into commercial grade products. During 2009, we continued making significant expenditures for our battery initiative, added staff and equipment for the manufacture of nano lithium titanate products and increased our sales and marketing efforts. In 2010, we intend to increase spending on our battery initiatives continuing the enhancement of our products and their conversion into commercial grade products. We estimate that our current cash and short-term investments balance is sufficient to support our operations well into 2010 based on budgeted cash flow projections. However, it will not be sufficient to carry the Company to our projected cash flow breakeven point expected in 2011. Considering this fact we will most likely attempt to raise additional cash during 2010. Depending upon the size and timing of future orders, we believe that this additional capital would enable the Company to reach its cash flow breakeven point and become cash self-sustaining.

Investing activities for the year ended December 31, 2009 reflect the purchase of property and equipment of $768,000 compared to property and equipment purchases of $3.0 million made for the year ended December 31, 2008. Capital expenditures of approximately $4.9 million are anticipated through December 2010 based on the anticipated increased sales and production volumes.

Our cash and short-term investments decreased by $10.0 million, from $28.1 million at December 31, 2008 to $18.1 million at December 31, 2009, due primarily to net proceeds from our May common stock sale and other financing activities of $12.4 million plus the sale of our Spectrum Pharmaceuticals stock for $2.0 million offset by net cash used in operations of $24.0 million and purchases of property and equipment of $0.8 million

The use of cash for financing activities of $434,000 (excluding the May financing) for the year ended December 31, 2009 primarily reflects the payment of the note payable on our building of $600,000. The final payment of $600,000 on this note was due, and paid, in January 2010.

During the second half of 2009 we built up our inventory in anticipation of sales expected in late 2009 and early 2010. However, we experienced fewer orders than expected due to various economic and political factors, including decisions by many companies to defer battery technology projects while waiting for responses on government grant applications related to the American Recovery and Reinvestment Act of 2009. Based on the increased level of sales quote activity we have seen of late, however, it appears that companies are returning to a more normal mode of business in which projects are evaluated on their own merits. As we move into 2010, we do not expect to build up our inventory much more than its current level until we begin to close sales. With regard to inventory decisions, we also consider the lengthy manufacturing cycle of four to six months required to produce our large battery systems. Depending on the time lag between the initial inventory buildup and the actual sales, our cash balance will be negatively impacted. Since actual sales and production volumes for the full year of 2010 are unknown at this time, we are not able to currently estimate our anticipated inventory purchases through December 31, 2010. We expect that we will end 2010, however, with an overall inventory level in the same range as we ended 2009. Liquidity will be a consideration in our final determination of production volumes.

Our objective is to manage cash expenditures in a manner consistent with rapid product development that leads to the generation of revenues in the shortest possible time. Our shift in focus to the Power and Energy Group and reduction in resources committed to our other business units has allowed us to re-direct funding to our battery development and commercialization activities, which are anticipated to be higher margin with a shorter cycle to commercialization than our Performance Materials and pharmaceutical candidates. We do not believe that this shift in focus will have a material effect on our sources of cash. Our cash outflow in the Life Sciences and Performance Materials markets was considerably greater than our cash inflow.

Historically, we have financed operations primarily through the issuance of equity securities (common shares, convertible debentures, stock options and warrants) and by the issuance of debt. Depending upon the growth rate of our battery revenues, we will most likely need to raise additional capital to fund this growth during 2010. We do not have any commitments with respect to future financing and may or may not, be able to obtain such financing on reasonable terms, or at all.

Consistent with past practice, we expect that this type of financing will continue to provide us with the working capital required until anticipated order volume increases allow us to reach cash flow breakeven. If order volume fails to increase as currently anticipated, we estimate that at our 2009 average net cash burn rate of $1.9 million per month, capital for approximately 10 months is available excluding any new business. Under this scenario, if no customer orders are received by mid 2010, purchases of raw materials would be discontinued and other measures to conserve cash would be implemented as necessary to extend cash availability. Included in our 2009 cash expenditures was an increase in our inventory levels of $5.0 million. Other measures to preserve cash on hand until order volume begins to increase would include the following:

§ reducing production levels and purchases of raw materials;

§ deferring discretionary expenditures such as capital purchases, internal research costs, training, and routine equipment and building maintenance;

§ eliminating or deferring filling non-critical positions through attrition; and

§ reductions in workforce.

As we project forward for the next 24 months, if sales volume growth is slow and steady and we continue our existing model of shipping our nano lithium titanate to our current contract manufacturer who manufactures our battery cells and then ships them to our Anderson, Indiana facility for assembly into our final products, we will need to raise additional capital during 2010 to carry us to cash flow breakeven anticipated in 2011. On the other hand, if volume growth is relatively fast as the global economy starts to improve, we will need also to raise additional capacity expansion capital earlier in order to fulfill the higher demand. If we change our existing model with respect to the manufacture of our battery cells, we may need a larger capital investment to fund the building of that capability in house. Since we are in the process of commercializing our products in newly emerging markets and our growth estimates may vary based on the economic recovery, our historical cash flows are not a good indicator of our future requirements.

We evaluate our capital needs and the availability of capital on an ongoing basis and, consistent with past practice, expect to seek capital when and on such terms as we deem appropriate based upon our assessment of our current liquidity, capital needs and the availability of capital. Given that we are not yet in a positive cash flow or earnings position, the options available to us are fewer than to a positive cash flow company. Specifically, we would not generally qualify for long-term institutional debt financing. We do not have any commitments from any party to provide required capital and may or may not, be able to obtain such capital on reasonable terms. Consistent with past practice we expect to raise additional capital through the sale of common shares, convertible notes, stock options, and warrants. We do not expect the current difficult economic environment to preclude our ability to raise capital, but the overall cost to the Company of doing so will most likely be higher.

We had a single note payable in the original principal amount of $3 million secured by a first lien on our building. The final payment of principal and interest was due on February 8, 2010 and paid on January 29, 2010.

Capital Commitments and Expenditures

The following table discloses aggregate information about our contractual obligations and the periods in which payments are due as of December 31, 2009:

In thousands of dollars Contractual Obligations	Total	Less Than 1 Year	1-3 Years	4-5 Years	After 5 Years
Notes Payable	$ 794	$ 794	$ -	$ -	$ -
Interest on Notes Payable	42	42	-	-	-
Contractual Service Agreements	454	454	-	-	-
Property and Capital Leases	862	380	482	-	-
Unfulfilled Purchase Orders	4,068	4,068	-	-	-
Total Contractual Obligations	$ 6,220	$ 5,738	$ 482	$ -	$ -

In 2008 and 2009, we upgraded our enterprise resource planning and accounting systems to support our anticipated growth and to give our operating personnel the timely information they need to make business decisions. We spent $250,000 in 2008 and $1,200,000 in 2009 on these systems. Implementation was completed in July 2009.

In July 2007, we signed a new lease agreement for 30,000 square feet of space in the Flagship Business Accelerator Building located at 3019 Enterprise Drive, Anderson, Indiana. On March 1, 2008, we signed an addendum to this lease that increased the space leased by 40,000 square feet. The move from the former office and laboratory space

leased in the Flagship Enterprise Center Building to the Accelerator Building was completed by late February 2008. We have spent approximately $343,000 on build-out and leasehold improvements during 2008 and an additional $72,000 in 2009.

We purchased equipment for our Reno, Nevada and Anderson, Indiana facilities for use in the development and expansion of our current advanced battery materials production capabilities. Through December 31, 2009, approximately $0.5 million was expended on lab and production equipment. An additional $0.2 million was spent on upgrading office equipment and software to support these efforts.

Depending upon the speed of our revenue growth in 2010, we plan to spend approximately $4.9 million on production and tooling equipment associated with our Power and Energy Group capacity expansion. This level of expenditures assumes that we will continue to rely on a contract manufacturer to manufacture our cells. Should we change this model and decide to manufacture the cells ourselves, a much higher level of capital investment would be required to build a cell manufacturing capability here in the U.S. The size of this investment would be dependent upon the size of the facility required and to what extent we could use existing available space in our current locations.

Off-Balance Sheet Arrangements

The company did not have any off-balance sheet transactions during 2009.

Critical Accounting Policies and Estimates

Management based the following discussion and analysis of our financial condition and results of operations on our consolidated financial statements. 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 contingent assets and liabilities. On an on-going basis, we evaluate our critical accounting policies and estimates, including those related to long-lived assets, share-based compensation, revenue recognition, overhead allocation, allowance for doubtful accounts, inventory, and deferred income tax. We base our estimates on historical experience and on various other assumptions that we believe 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 believe the following critical accounting policies affect the more significant judgments and estimates used in the preparation of our consolidated financial statements. These judgments and estimates affect the reported amounts of assets and liabilities and the reported amounts of revenues and expenses during the reporting periods. Changes to these judgments and estimates could adversely affect the Company's future results of operations and cash flows.

§ Long-Lived Assets. Our long-lived assets consist principally of the nanomaterials and titanium dioxide pigment assets, the intellectual property (patents and patent applications) associated with them, and a building. Included in these long-lived assets are those that relate to our research and development process. If the assets have alternative future uses (in research and development projects or otherwise), they are capitalized when acquired or constructed; if they do not have alternative future uses, they are expensed as incurred. At December 31, 2009, the carrying value of these assets was $11.4 million, or 28% of total assets. We evaluate the carrying value of long-lived assets whenever events or changes in business circumstances indicate that the carrying value of the assets may not be recoverable. The carrying value of a long-lived asset is considered impaired when the total projected undiscounted cash flows expected to be generated by the asset are less than the carrying value. Our estimate of the cash flows is based on the information available at the time including the following: internal budgets; sales forecasts; customer trends; anticipated production volumes; and market conditions over an estimate of the remaining useful life of the asset which may range from 3 to 10 years for most equipment and up to 23 years for our building and related building improvements. If an impairment is indicated, the asset value is written to its fair value based upon market prices, or if not available, upon discounted cash flow value, at an appropriate discount determined by us to be commensurate with the risk inherent in the business model. The determination of both undiscounted and discounted cash flows requires us to make significant estimates and consider the expected course of action at the balance sheet

date. Our assumptions about future sales and production volumes require significant judgment because actual sales prices and volumes have fluctuated significantly in the past and are expected to continue to do so. Until our products reach commercialization, the demand for our products is difficult to estimate. Subsequent changes in estimated undiscounted and discounted cash flows arising from changes in anticipated actions could impact the determination of whether an impairment exists, the amount of the impairment charge recorded and whether the effects could materially impact our consolidated financial statements. Events or circumstances that could indicate the existence of a possible impairment include obsolescence of the technology, an absence of market demand for the product or the assets used to produce it, a history of operating or cash flow losses and/or the partial or complete lapse of technology rights protection.

As a result of management's determination to focus on the Power and Energy segment of the business and reduce resources committed to Performance Materials and Life Sciences, in combination with the delays experienced in commercializing our products, the following qualitative reviews were performed regarding our patents and fixed assets in addition to an undiscounted cash flow analysis to determine if our long-lived assets are impaired:

- Our Chief Technology Officer reviewed and confirmed that the capitalized patents of $551,000 relating to processing titanium dioxide and pigment have not been impaired. These patents are also the underlying basis for production of our nano lithium titanate, which is utilized as the anode material in our battery products in the Power and Energy segment. Nano lithium titanate is a fundamental building block of our batteries; we do not see these patents' value being impaired unless we are unable to commercialize our battery products. We believe this outcome is unlikely.

- Detailed review of the remaining Performance Materials fixed assets of $609,000 was performed with operations management to understand the purpose, use, and potential disposition of these fixed assets. Based on this detailed review, it was determined that the assets which consist primarily of production assets such as mills, furnaces and laboratory equipment suited for general use in our business would be re-purposed to the Power and Energy segment to support the anticipated growth in sales volume within the next two years. These assets are expected to have in-service lives at least equal to their depreciation lives and with reasonable ongoing maintenance are expected to continue functioning throughout that period. If we are unable to commercialize our battery products, the value of these assets could be impaired, but we believe this outcome is unlikely.

- Detailed review of the Life Sciences fixed assets with a net book value of $1.2 million was performed with operations management to understand the purpose, use, and potential disposition of these fixed assets. The assets relating to this segment are primarily building improvements that expand production and lab areas. It was determined that these improvements do add to the value of the building and the space and will be required for the expansion of Power and Energy operations based on anticipated growth in sales volume within the next two years. Failure to commercialize our battery products and a significant drop in real estate values could lead to impairment of these assets. We believe that the occurrence of such events is unlikely.

- Fixed assets held by our joint venture with Sherwin-Williams, AlSher Titania LLC, of $1.7 million, previously included in the Performance Materials segment, were also evaluated. Although we are currently continuing to work with Sherwin-Williams to identify and qualify an interested third party to purchase our interest in the AlSher Titania joint venture these assets have been idled for most of 2009. In assessing potential outcomes, it is our judgment that the most likely one is for the AlSher assets to be unwanted by a potential buyer, if one is found. We would be able to use some of these assets in its Power and Energy Group, and the rest would be sold for scrap. Accordingly we determined that these assets were impaired, and a $1.3 million valuation reserve has been reflected in our December 2009 financials to bring the AlSher Titania assets net book value down to market value of $418,000.

§ As of December 31, 2009, we estimate that our future cash flows, on an undiscounted basis, are greater than our $11.4 million in long-lived assets. Our estimated future cash flows include anticipated product sales, commercial collaborations, and contracts and grant revenue, since our long-lived asset base, which is primarily composed of production, laboratory and testing equipment and our Reno facility, is utilized to fulfill contracts in all revenue categories. Based on our assessment, which represents no change from the prior year in our approach to valuing long-lived assets, and after writing down the AlSher assets mentioned above, we believe that our long-lived assets are not impaired.

§ Stock-Based Compensation. We have a stock incentive plan that provides for the issuance of stock options, restricted stock and other awards to employees and service providers. We calculate compensation expense using a Black-Scholes Merton option pricing model. In so doing, we estimate certain key assumptions used in the model. We believe the estimates we use, which are presented in Note 11 of Notes to the Consolidated Financial Statements, are appropriate and reasonable.

§ Revenue Recognition. We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred or service has been performed, the fee is fixed and determinable, and collectability is probable. During 2009, our revenues were derived from three sources: product sales, commercial collaborations, and contract research and development. License fees are recognized when the agreement is signed, we have performed all material obligations related to the particular milestone payment or other revenue component and the earnings process is complete. Revenue for product sales is recognized upon delivery of the product, unless specific contractual terms dictate otherwise. Based on the specific terms and conditions of each contract/grant, revenues are recognized on a time and materials basis, a percentage of completion basis and/or a completed contract basis. Revenue under contracts based on time and materials is recognized at contractually billable rates as labor hours and expenses are incurred. Revenue under contracts based on a fixed fee arrangement is recognized based on various performance measures, such as stipulated milestones. As these milestones are achieved, revenue is recognized. From time to time, facts develop that may require us to revise our estimated total costs or revenues expected. The cumulative effect of revised estimates is recorded in the period in which the facts requiring revisions become known. The full amount of anticipated losses on any type of contract is recognized in the period in which it becomes known. Payments received in advance relating to future performance of services or delivery of products, are deferred until the customer accepts the service or the product title transfers to our customer. Upfront payments received in connection with certain rights granted in contractual arrangements are deferred and amortized over the related time period over which the benefits are received. Based on specific customer bill and hold agreements, revenue is recognized when the inventory is shipped to a third party storage warehouse, the inventory is segregated and marked as sold, the customer takes the full rights of ownership and title to the inventory upon shipment to the warehouse per the bill and hold agreement. When contract terms include multiple components that are considered separate units of accounting, the revenue is attributed to each component and revenue recognition may occur at different points in time for product shipment, installation, and service contracts based on substantial completion of the earnings process.

§ Accrued Warranty. We provide a limited warranty for battery packs and energy storage systems. A liability is recorded for estimated warranty obligations at the date products are sold. Since these are new products, the estimated cost of warranty coverage is based on cell and module life cycle testing and compared for reasonableness to warranty rates on competing battery products. As sufficient actual historical data is collected on the new product, the estimated cost of warranty coverage will be adjusted accordingly. The liability for estimated warranty obligations may also be adjusted based on specific warranty issues identified.

§ Overhead Allocation. Facilities overheads, which are comprised primarily of occupancy and related expenses, and fringe benefit expenses, are initially recorded in general and administrative expenses and then allocated monthly to research and development expense based on labor costs. Facilities overheads and fringe benefits allocated to research and development projects may be chargeable when invoicing customers under certain research and

development contracts.

§ Allowance for Doubtful Accounts. The allowance for doubtful accounts is based on our assessment of the collectability of specific customer accounts and the aging of accounts receivable. We analyze historical bad debts, the aging of customer accounts, customer concentrations, customer credit-worthiness, current economic trends and changes in our customer payment patterns when evaluating the adequacy of the allowance for doubtful accounts. From period to period, differences in judgments or estimates utilized may result in material differences in the amount and timing of our bad debt expenses.

§ Inventory. We value our inventories generally at the lower of cost (first-in, first-out method) or market. We employ a full absorption procedure using standard cost techniques. The standards are customarily reviewed and adjusted annually. Overhead rates are recorded to inventory based on normal capacity. Any idle facility costs or excessive spoilage are recorded as current period charges.

§ Deferred Income Tax. Income taxes are accounted for using the asset and liability method. Deferred income tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carry forwards. Deferred income tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred income tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. Future tax benefits are subject to a valuation allowance when management is unable to conclude that its deferred income tax assets will more likely than not be realized from the results of operations. We have recorded a valuation allowance to reflect the estimated amount of deferred income tax assets that may not be realized. The ultimate realization of deferred income tax assets is dependent upon generation of future taxable income during the periods in which those temporary differences become deductible. Management considers projected future taxable income and tax planning strategies in making this assessment. Based on the historical taxable income and projections for future taxable income over the periods in which the deferred income tax assets become deductible, management believes it more likely than not that the Company will not realize benefits of these deductible differences as of December 31, 2009. Management has, therefore, established a full valuation allowance against its net deferred income tax assets as of December 31, 2009. Due to the significant increase in common shares issued and outstanding from 2005 through 2009, Section 382 of the Internal Revenue Code may provide significant limitations on the utilization of our net operating loss carry forwards. As a result of these limitations, a portion of these loss and credit carryovers may expire without being utilized.

Results of Operations

The following table sets forth certain selected, unaudited, condensed consolidated financial data for the periods indicated.

ALTAIR NANOTECHNOLOGIES INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
(Expressed in thousands of United States Dollars)
(Unaudited)

	Power and Energy Group Year Ended December 31,			All Other Year Ended December 31,			Corporate Year Ended December 31,			
	2009	2008	2007	2009	2008	2007	2009	2008	2007	2
Revenues										
Product sales	$636	$428	$3,938	$309	$329	$120	$-	$-	$-	$94
Less: sales returns	(113)	-	-	(71)	-	-	-	-	-	(1
License fees	-	-	-	750	-	-	-	-	-	75
Commercial collaborations	1,405	917	536	5	1,090	2,374	-	-	-	1,
Contracts and grants	1,321	2,730	808	129	232	1,332	-	-	-	1,
Total revenues	3,249	4,075	5,282	1,122	1,651	3,826	-	-	-	4,
Operating Expenses										
Cost of sales - product	915	105	5,126	39	78	38	-	-	-	95
Cost of sales - warranty and inventory reserves	198	(2,865)	6,843	-	-	-	-	-	-	19
Research and development	8,030	11,282	8,765	175	3,603	1,778	2,118	2,023	4,901	10
Sales and marketing	-	-	-	-	-	-	2,819	2,950	2,001	2,
Notes Receivable extinguishment	-	-	-	-	-	-	-	1,722	-	-
Settlement and release	-	-	-	-	-	-	-	3,605	-	-
Asset impairment	-	-	-	1,308	-	-	-	-	-	1,
General and administrative	168	230	269	107	368	-	8,668	9,992	10,501	8,
Depreciation and amortization	1,320	1,281	857	1,183	1,311	324	184	167	772	2,
Total operating expenses	10,631	10,033	21,860	2,812	5,360	2,140	13,789	20,459	18,175	27
Loss from Operations	(7,382)	(5 ,958)	(16,578)	(1,690)	(3,709)	1,686	(13,789)	(20,459)	(18,175)	(2
Other Income (Expense)										
Interest expense	(5)	-	-	-	-	-	(102)	(97)	(134)	(1
Interest income	-	-	-	-	-	-	188	982	1,101	18
Realized gain (loss) on investment	-	-	-	869	-	-	(18)	(89)	-	85
Loss on foreign exchange	-	-	-	-	-	-	(2)	(10)	(1)	(2
Total other (expense) income, net	(5)	-	-	869	-	-	66	786	966	93
Net loss	(7,387)	(5,958)	(16,578)	(821)	(3,709)	1,686	(13,723)	(19,673)	(17,209)	(2
Less: Net loss attributable to non-controlling interest	-	-	-	619	272	631	-	-	-	61

Net loss attributable to Altair Nanotechnologies Inc.	$(7,387)	$(5,958)	$(16,578)	$(202)	$(3,437)	$2,317	$(13,723)	$(19,673)	$(17,209)	$(2

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Fiscal Year 2009 vs. 2008

Revenues

Total revenues for the year ended December 31, 2009 were $4.4 million compared to $5.7 million for 2008.

Power and Energy Group revenue for the year ended December 31, 2009 was $3.2 million compared to $4.1 million for 2008. This decrease is attributable to our shift from lower margin contracts and grants revenues partially offset by higher product sales and commercial collaboration revenues, primarily with electric bus manufacturer Proterra, LLC. Contracts and grants revenue was down $1.4 million from 2008 to 2009. This was due primarily to the completion of the ONR I contract in November 2008 and the ramp up of the ONR II contract in starting in June 2009.

All Other revenues for the year ended December 31, 2009 were down $529,000 from $1.7 million in 2008. This net decrease was primarily from $1.1 million in reduced commercial collaboration revenue from several customers, netted with a $750,000 one-time license fee revenue from Spectrum Pharmaceuticals in 2009.

Operating Expenses

Power and Energy Group cost of sales – product increased $810,000 in the Power and Energy Group. These costs were associated with the production ramp up of our nano lithium titanate raw material production in Reno, Nevada and battery module production in Anderson, Indiana.

Power and Energy Group cost of sales – warranty and inventory reserves increased from a credit of $2.9 million in 2008 to $198,000 in expense in 2009. The $2,9 million credit in 2008 resulted from an agreement effective July 2008 with Phoenix Motor Cars, whereby the 2007 purchase and supply agreement was terminated and the parties resolved all outstanding issues with respect to the warranty associated with the 47 battery packs sold in 2007 The $198,000 2009 expense includes a $71,000 inventory valuation allowance primarily associated with the cell manufacture issue previously described.

Total research and development expense decreased by $6.6 million, or 39%, from $16.9 million in 2008 to $10.3 million 2009. Power and Energy Group costs decreased $3.3 million associated with the completion of grant work in 2008. Research and development costs for All Other operations decreased by $3.4 million attributable to a shift in focus and realignment of resources from Life Sciences and Performance Materials to the battery production arena. The Corporate segment research and development expenses primarily reflect the personnel and operating costs associated with our science and technology group which supports the Company’s overall research and development efforts.

Notes receivable extinguishment expense of $1.7 million in 2008 relates to an agreement effective July 2008 with Phoenix Motorcars, whereby all accounts receivable and notes receivable relating to the 2007 Purchase and Supply Agreement were cancelled.

Settlement and release expense of $3.6 million in 2008 resulted from a settlement agreement with Al Yousuf LLC related to claims associated with their November 2007 investment in the Company.

Asset impairment of $1.3 million in 2009 is a result of an impairment charge to adjust AlSher assets to their fair market value as of December 31, 2009. Sherwin-Williams is seeking outside financing to continue this business. We evaluated the different possibilities of outcome for AlSher as of December 31, 2009, determined that these assets were impaired.

Total general and administrative expenses decreased by $1.6 million, from $10.6 million in 2008 to $8.9 million in 2009. This decrease is related to the separation expenses related to our former President and Chief Executive Officer that were incurred in February 2008, and due to strict cost containment in this area of the business during 2009.

Other Income and Expense

Interest income decreased by $794,000, or 81%, from 2008 to 2009. On average, a higher average level of cash during 2008 than in 2009 and lower interest rates in 2009 drove this reduction.

Realized gain (loss) on investments swung from an $89,000 loss in 2008 to an $851,000 gain in 2009. This $851,000 gain in 2009 arose primarily from the sale of 240,000 shares of Spectrum common stock at a higher market price than recorded on our books when the stock was originally received as payment from Spectrum for the achievement of certain contract milestones.

Net Loss

The net loss for the year ended December 31, 2009 totaled $21.3 million compared to a net loss of $29.1 million for the year ended December 31, 2008.

Power and Energy Group net loss for the year ended December 31, 2009 was $7.4 million compared to a net loss of $6.0 million in 2008. This increased loss was due to a shift away from low margin contracts and grants revenue in 2009 and only partially offset by increased product sales and commercial collaborations revenues, and the $2.9 million product warranty credit in 2008.

The net loss of Corporate for the year ended December 31, 2009 was $13.7 million compared to a net loss of $19.7 million in 2008. This decrease is primarily related to a number of one-time expenses reflected in the 2008 results including the costs associated with the Al Yousuf LLC settlement, the Phoenix notes receivable extinguishment and the separation expenses related to our former President and Chief Executive Officer, netted with the 2009 AlSher Titania asset impairment as described above.

Fiscal Year 2008 vs. 2007

Revenues decreased by $3.4 million, from $9.1 million in 2007 to $5.7 million in 2008, while operating expenses decreased by $6.3 million, from $42.2 million in 2007 to $35.9 million in 2008. As a result, our loss from operations decreased by $2.9 million, from $33.1 million in 2007 to $30.1 million in 2008.

Power and Energy Group product sales decreased from $3.9 million in 2007 to $428,000 in 2008. The primary reason for this decrease was due to the volume of battery packs sold to Phoenix Motorcars dropped from 50 in 2007 to zero in 2008 resulting in a $3.0 million decrease in product sales. The sales cycle, associated with sales of our stationary power batteries for use in providing ancillary services over power grids, has turned out to be longer than originally anticipated resulting in the slower ramp-up of revenue from that revenue channel.

Commercial collaborations revenues in our All Other Division decreased $1.3 million, from $2.4 million in 2007 to $1.1 million in 2008. This decrease is primarily due to the discontinuance of the Western Oil Sands project in May 2008.

Total contract and grant revenues increased from $2.1 million in 2007 to $3.0 million in 2008, principally in connection with a new grant received in January 2008 from the Office of Naval Research, included in our Power and Energy Group. This increase was offset by decreased revenues in our All Other Division from several other grants as the grants concluded during the second and third quarters of 2008.

Power and Energy Group cost of sales - product decreased by $5.0 million, from $5.1 million in 2007 to $105,000 in 2008. This decrease is driven by the decrease in battery pack sales and other changes in product sales discussed above. Positive margins have not yet been achieved associated with the sale of battery packs due to scaling issues, and we expect that situation to continue well into 2010. As higher production volumes and cost reduction efforts are achieved, the margin on battery pack sales is expected to become positive.

Power and Energy Group cost of sales – warranty and inventory reserves decreased by $9.7 million in 2008, from $6.8 million in 2007 to a credit of $2.9 million in 2008. 2007 costs were high due to several one-time events including $3.9 million for the write-off of all inventory balances on hand at December 31, 2007, $2.5 million relating to battery cells and modules, and $1.4 million for cells ordered in 2007 for delivery in 2008. An additional decrease in reserves by $2.9 million resulted from a letter of agreement effective July 2008 with Phoenix Motorcars, whereby the 2007 purchase and supply agreement was terminated and the parties resolved all outstanding issues with respect to the warranty associated with the 47 battery packs sold in 2007.

Total research and development expense increased by $1.5 million from $15.4 million in 2007 to $16.9 million in 2008. Research and development employee costs in the Power and Energy Group and All Other Division increased by $1.5 million due to an increase in headcount of 27 from the start of 2007 through April of 2008. However, headcount decreased by 21 from April 2008 through December 2008 in the Corporate Division to align personnel with required resources. Excluding labor, research and development expenses in the Power and Energy Group increased by $1.4 million primarily due to materials relating to 2008 customer purchase orders and development agreements, and engineering and other research and development activities. Excluding labor, research and development expenses decreased by $962,000 in the All Other Division primarily due to $304,000 as the Department of Energy Grant concluded in December 2007, $330,000 due to the relocation of Western Oil Sands to another facility in May 2008, and $390,000 from 2007 construction and testing of the pigment pilot plant. The remaining increase relates to other internal research and development.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

None.

Item 8. Financial Statements and Supplementary Data.

Supplementary Data

The following Supplementary Financial Information for the fiscal quarters ended March 31, June 30, September 30 and December 31 in each of the years 2009 and 2008 was derived from our unaudited quarterly consolidated financial statements filed by us with the SEC in our Quarterly Reports on Form 10-Q with respect to such periods (except for 4th quarter data).

Supplementary Financial Information by Quarter, 2009 and 2008
(Unaudited – in 000s)

	Quarter Ended March 31	Quarter Ended June 30	Quarter Ended September 30	Quarter Ended December 31
Year Ended December 31, 2009:				
Revenues	$ 902	$ -	$ 1,667	$ 1,805
Operating expenses	$ 7,374	$ 6,482	$ 5,906	$ 7,469
Net loss	$ (6,385)	$ (6,393)	$ (3,316)	$ (5,217)
Loss per common share: (1)				
Basic and diluted	$ (0.07)	$ (0.07)	$ (0.03)	$ (0.05)
Year Ended December 31, 2008:				
Revenues	$ 1,069	$ 1,903	$ 1,802	$ 953
Operating expenses	$ 9,819	$ 7,839	$ 11,124	$ 7,070
Net loss	$ (8,288)	$ (5,660)	$ (9,111)	$ (6,008)
Loss per common share: (1)				
Basic and diluted	$ (0.10)	$ (0.07)	$ (0.11)	$ (0.08)

(1) Loss per common share is computed independently for each of the quarters presented. Therefore, the sum of the quarterly loss per common share amounts does not necessarily equal the total for the year.

Financial Statements

The financial statements required by this Item appear on pages F-4 through F-34 of this Report.

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

None.

Item 9A. Controls and Procedures

Disclosure Controls and Procedures. Based on an evaluation required by paragraph (b) of Rule 13a-15 or Rule 15d-15 of the Securities Exchange Act of 1934, as amended, as of December 31, 2009, which is the end of the period covered by this annual report on Form 10-K, our principal executive officer and principal financial officer have concluded that our disclosure controls and procedures (as defined in Rule 13a-15(e) of the Securities Exchange Act of 1934, as amended) are effective.

Internal Control Over Financial Reporting. Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) under the Securities Exchange Act of 1934, as amended. 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 accounting principles generally accepted in the United States of America. Internal control over financial reporting includes those written policies and procedures that:

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- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with accounting principles generally accepted in the United States of America;
- provide reasonable assurance that our receipts and expenditures are being made only in accordance with authorization of our management; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of assets that could have a material effect on our consolidated financial statements.

Internal control over financial reporting includes the controls themselves, monitoring and internal auditing practices and actions taken to correct deficiencies as identified.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2009. Our management's assessment was based on criteria for effective internal control over financial reporting described in "Internal Control – Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission. Our management's assessment included an evaluation of the design of our internal control over financial reporting and testing of the operational effectiveness of our internal control over financial reporting. Our management reviewed the results of its assessment with the Audit Committee of our Board of Directors. Based on this assessment, our management determined that, as of December 31, 2009, we maintained effective internal control over financial reporting.

The effectiveness of Altair Nanotechnologies Inc.'s internal control over financial reporting as of December 31, 2009 has been audited by Perry-Smith LLP, independent registered public accounting firm, as stated in their report, which is included in Part II, Item 8 of this Form 10-K on pages F-2 and F-3.

Changes in Internal Control Over Financial Reporting. There were no significant changes (including corrective actions with regard to significant deficiencies or material weaknesses) in our internal controls over financial reporting that occurred during the fourth quarter of fiscal 2009 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

PART III

Item 10. Directors and Executive Officers of the Registrant

The information required by this Item is incorporated by reference to the section entitled “Election of Directors” in the Company’s definitive proxy statement to be filed with the SEC.

Item 11. Executive Compensation

The information required by this Item is incorporated by reference to the section entitled “Executive Compensation” in the Company’s definitive proxy statement to be filed with the SEC.

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

The information required by this Item is incorporated by reference to the section entitled “Security Ownership of Certain Beneficial Owners and Management” in the Company’s definitive proxy statement to be filed with the SEC.

Item 13. Certain Relationships and Related Transactions

The information required by this Item is incorporated by reference to the section entitled “Certain Relationships and Related Transactions” in the Company’s definitive proxy statement to be filed with the SEC.

Item 14. Principal Accountant Fees and Services

The information required by this Item is incorporated by reference to the section entitled “Principal Accounting Fees and Services” in the Company’s definitive proxy statement to be filed with the SEC.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) Documents Filed

1. Financial Statements. The following Consolidated Financial Statements of the Company and Auditors' Report are filed as part of this Annual Report on Form 10-K:

- Report of Independent Registered Public Accounting Firm
- Report of Independent Registered Public Accounting Firm on Internal Control over Financial Reporting
- Consolidated Balance Sheets, December 31, 2009 and 2008
- Consolidated Statements of Operations for Each of the Three Years in the Period Ended December 31, 2009
- Consolidated Statements of Shareholders' Equity and Comprehensive Loss for Each of the Three Years in the Period Ended December 31, 2009
- Consolidated Statements of Cash Flows for Each of the Three Years in the Period Ended December 31, 2009
- Notes to Consolidated Financial Statements

2. Financial Statement Schedule. Not applicable.

3. Exhibits. The information required by this item is set forth on the exhibit index that follows the signature page of this report.

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.

ALTAIR NANOTECHNOLOGIES INC.

By: /s/ Terry Copeland
Terry Copeland
President and Chief Executive Officer

Date: March 12, 2010

POWER OF ATTORNEY AND ADDITIONAL SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the following persons in the capacities and on the dates indicated have signed this Report. Each person whose signature to this Report appears below hereby constitutes and appoints Terry Copeland and John Fallini, and each of them, as his true and lawful attorney-in-fact and agent, with full power of substitution, to sign on his behalf individually and in the capacity stated below and to perform any acts necessary to be done in order to file all amendments to this Report, and any and all instruments or documents filed as part of or in connection with this Report or the amendments thereto and each of the undersigned does hereby ratify and confirm all that said attorney-in-fact and agent, or his substitutes, shall do or cause to be done by virtue hereof.

Signature	Title	Date
/s/ Terry Copeland Terry Copeland	President, Chief Executive Officer (Principal Executive Officer) and Director	March 12, 2010
/s/ John Fallini John Fallini	Chief Financial Officer and Corporate Secretary (Principal Financial and Accounting Officer)	March 12, 2010
/s/ Jon N. Bengtson Jon N. Bengtson	Director	March 12, 2010
/s/ George E. Hartman George E. Hartman	Director	March 12, 2010
/s/ Hossein Asrar Haghighi Hossein Asrar Haghighi	Director	March 12, 2010
/s/ Pierre Lortie Pierre Lortie	Director	March 12, 2010
	Director	March 12, 2010

/s/ Robert G. van Schoonenberg Robert G. van Schoonenberg		
/s/ Alexander Lee Alexander Lee	Director	March 12, 2010

Exhibit Index

Exhibit No.	Description	Incorporated by Reference/ Filed Herewith (and Sequential Page #)
3.1	Articles of Continuance	Incorporated by reference to the Current Report on Form 8-K filed with the SEC on July 18, 2002.**
3.2	Bylaws	Incorporated by reference to the Amendment No. 1 to Annual Report on Form 10-K/A filed with the SEC on March 10, 2005. **
4.1	Form of Common Stock Certificate	Filed herewith
4.2	Amended and Restated Shareholder Rights Plan dated October 15, 1999, with Equity Transfer Services, Inc.	Incorporated by reference to the Company’s Current Report on Form 8-K filed with the SEC on November 19, 1999. **
4.3	Amendment No. 1 to Shareholders Rights Plan Agreement dated October 5, 2008, with Equity Transfer Services, Inc.	Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on October 6, 2008.
4.4	Form of Common Share Purchase Warrant re May 2009 Offering	Incorporated by reference to the Company’s Current Report on Form 8-K filed with the SEC on May 22, 2009**
10.1	Altair International Inc. Stock Option Plan (1996)***	Incorporated by reference to the Company’s Registration Statement on Form S-8, File No. 333-33481 filed with the SEC on July 11, 1997
10.2	1998 Altair International Inc. Stock Option Plan***	Incorporated by reference to the Company’s Definitive Proxy Statement on Form 14A filed with the SEC on May 12, 1998. **
10.3	Altair Nanotechnologies Inc. 2005 Stock Incentive Plan (Amended and Restated)***	Incorporated by reference to the Company’s Annual Report on Form 10-K filed with the SEC on March 13, 2007.**
10.4	Standard Form of Stock Option Agreement under 2005 Stock Incentive Plan***	Incorporated by reference to the Company’s Annual Report on Form 10-K filed with the SEC on March 13, 2007.**
10.5	Standard Form of Stock Option Agreement for Executives under 2005 Stock incentive Plan *	Incorporated by reference to the Quarterly Report on Form 10-Q filed with the SEC on May 8, 2008. **
10.6	Standard Form of Restricted Stock Agreement under 2005 Stock Incentive Plan***	Incorporated by reference to the Company’s Annual Report on Form 10-K filed with the SEC on March 13, 2007.**

10.7	Installment Note dated August 8, 2002 (re Edison Way property) in favor of BHP Minerals International, Inc.	Incorporated by reference to the Company's Amendment No. 1 to Registration Statement on Form S-2, File No. 333-102592, filed with the SEC on February 7, 2003.

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Exhibit No.	Description	Incorporated by Reference/ Filed Herewith (and Sequential Page #)
10.8	Trust Deed dated August 8, 2002 (re Edison Way property) with BHP Minerals International, Inc.	Incorporated by reference to the Company's Amendment No. 1 to Registration Statement on Form S-2, File No. 333-102592, filed with the SEC on February 7, 2003.
10.9	Flagship Business Accelerator Tenant Lease dated July 1, 2007 with the Flagship Enterprise Center, Inc.	Incorporated by reference to the Company's Quarterly Report on Form 10-Q filed with the SEC August 9, 2007. **
10.9.1	Amendment to the Flagship Business Accelerator Tenant Lease dated March 1, 2008 with the Flagship Enterprise Center, Inc.	Incorporated by reference to the Company's Quarterly Report on Form 10-Q filed with the SEC on May 8, 2008.**
10.10	Letter agreement dated July 20, 2008 with Phoenix Motorcars, Inc.	Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on July 24, 2008. **
10.11	Contribution Agreement dated April 24, 2007 with the Sherwin-Williams Company and AlSher Titania LLC*	Incorporated by reference to the Current Report on Form 8-K filed with the SEC on April 30, 2007. **
10.12	License Agreement dated April 24, 2007 with the Sherwin-Williams Company and AlSher Titania LLC	Incorporated by reference to the Current Report on Form 8-K filed with the SEC on April 30, 2007. **
10.13	Contract dated January 29, 20008 with the office of Naval Research	Incorporated by reference to the Company's Annual Report on Form 10-K filed with the SEC on March 14, 2008**
10.14	Service Agreement dated February 11, 2008 with Melpar BVBP	Incorporated by reference to the Company's Annual Report on Form 10-K filed with the SEC on March 14, 2008.**
10.15	Mandate & Contractor ship Agreement dated February 11, 2008 with Rik Dobbelaere***	Incorporated by reference to the Company's Annual Report on Form 10-K filed with the SEC on March 14, 2008.**
10.16	Separation Agreement and Release of All Claims dated April 18, 2008 with Alan Gotcher***	Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on April 23, 2008.**
10.17	Employment Agreement dated June 26, 2008 with Terry Copeland***	Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on July 1, 2008.**
10.18	Employment Agreement dated March 10, 2008 with Jeffrey A. McKinney***	Incorporated by reference to the Company's Annual Report on Form 10-K filed with the SEC

		on March 14, 2008.**
10.19	Separation Agreement and Release of All Claims dated September 5, 2008 with Jeffrey McKinney***	Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on September 5, 2008.**

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Exhibit No.	Description	Incorporated by Reference/ Filed Herewith (and Sequential Page #)
10.20	Employment Agreement dated April 7, 2008 with John Fallini***	Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on April 9, 2008.**
10.21	Employment Agreement dated June 16, 2008 with C. Robert Pedraza***	Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on June 20, 2008.**
10.22	Employment Agreement dated November 24, 2008 with Dan Voelker***	Incorporated by reference to the Current Report on Form 8-K filed with the SEC on November 28, 2008, File No. 001-12497**
10.23	2008 Annual Incentive Bonus Plan***	Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on July 2, 2008.**
10.24	Registration Rights Agreement dated November 29, 2007 with Al Yousuf LLC	Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on November 30, 2007.**
10.25.1	Amendment No. 1 to Registration Rights Agreement with Al Yousuf, LLC dated as of September 30, 2008	Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on October 6, 2008.**
10.25.2	Amendment No. 2 to Registration Rights Agreement with Al Yousuf, LLC dated August 14, 2009	Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on September 4, 2009.**
10.26	Stock Purchase and Settlement Agreement with Al Yousuf, LLC dated as of September 30, 2008	Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on October 6, 2008.**
10.27	2009 Annual Incentive Bonus Plan* ***	Incorporated by reference to the Quarterly Report on Form 10-Q filed with the SEC on May 8, 2008. **
10.28	Amended and Restated Agreement dated August 4, 2009 with Spectrum Pharmaceuticals, Inc. *	Incorporated by reference to the Quarterly Report on Form 10-Q filed with the SEC on August 7, 2009. **
10.29	Product Purchase Agreement dated August 4, 2009 with Proterra LLC*	Incorporated by reference to the Quarterly Report on Form 10-Q filed with the SEC on August 7, 2009. **
10.30	Employment Agreement dated December 9, 2009 with Stephen Balogh***	Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on December 14, 2009.**

10.31	Contract with the U.S. Army RDECOM Acquisition Center dated September 3, 2009.	Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on October 13, 2009.**
10.32	Employment Agreement dated September 4, 2009 with Bruce Sabacky***	Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on September 10, 2009.**

Exhibit No.	Description	Incorporated by Reference/ Filed Herewith (and Sequential Page #)
10.33	Placement Agent Agreement with Lazard Capital Markets, LLC dated May 22, 2009	Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on May 22, 2009.**
10.34	Form of Subscription Agreement re May 2009 Offering	Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on May 22, 2009. **
10.35	Contract dated May 22, 2009 with the Office of Naval Research	Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on May 29, 2009.**
21	List of Subsidiaries	Incorporated by reference from Item 1 of this report.
23.1	Consent of Perry-Smith LLP	Filed herewith.
24	Powers of Attorney	Included in the Signature Page hereof.
31.1	Rule 13-14(a)/15d-14a Certification of Chief Executive Officer	Filed herewith
31.2	Rule 13-14(a)/15d-15a Certification of Chief Financial Officer	Filed herewith
32.1	Section 1350 Certification of Chief Executive Officer	Filed herewith
32.2	Section 1350 Certification of Chief Financial Officer	Filed herewith

*Portions of this Exhibit have been omitted pursuant to Rule 24b-2, are filed separately with the SEC and are subject to a confidential treatment request.

** SEC File No. 1-12497.

*** Indicates management contract or compensatory plan or arrangement.

Altair Nanotechnologies Inc.
and Subsidiaries

Consolidated Financial Statements as of December 31, 2009 and 2008 and for Each of the Three Years in the Period Ended December 31, 2009 and Reports of the Independent Registered Public Accounting Firm

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ALTAIR NANOTECHNOLOGIES INC. AND SUBSIDIARIES

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Shareholders and Board of Directors
Altair Nanotechnologies, Inc.

We have audited the accompanying consolidated balance sheets of Altair Nanotechnologies, Inc. and subsidiaries (the "Company") as of December 31, 2009 and 2008, and the related consolidated statements of operations, stockholders' equity and comprehensive loss and cash flows for each of the three years in the period ended December 31, 2009. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated 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. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of the Company as of December 31, 2009 and 2008, and the consolidated results of their operations and their cash flows for each of the three years in the period ended December 31, 2009, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 31, 2009, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated March 12, 2010 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

/s/ Perry - Smith LLP

Sacramento, California
March 12, 2010

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The Shareholders and Board of Directors
Altair Nanotechnologies, Inc.

We have audited Altair Nanotechnologies, Inc. and subsidiaries' (the "Company") internal control over financial reporting as of December 31, 2009, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the "COSO criteria"). The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit 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 effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's 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 accounting principles generally accepted in the United States of America. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with accounting principles generally accepted in the United States of America, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM
ON INTERNAL CONTROL OVER FINANCIAL REPORTING
(Continued)

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2009, based on the COSO criteria.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets as of December 31, 2009 and 2008, and the related consolidated statements of operations, changes in stockholders' equity and comprehensive loss and cash flows for each of the three years in the period ended December 31, 2009 of the Company and our report dated March 12, 2010 expressed an unqualified opinion.

/s/ Perry - Smith LLP

Sacramento, California
March 12, 2010

PART I - FINANCIAL INFORMATION

Item 1. Financial Statements

ALTAIR NANOTECHNOLOGIES INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(Expressed in thousands of United States Dollars, except shares and per share amounts)

	December 31, 2009	December 31, 2008
ASSETS		
Current Assets		
Cash and cash equivalents	$18,122	$28,088
Investment in available for sale securities	505	-
Accounts receivable, net	683	955
Product inventories, net	5,043	98
Prepaid expenses and other current assets	1,820	572
Total current assets	26,173	29,713
Investment in available for sale securities	2,587	3,174
Property, plant and equipment, net held and used	8,670	11,637
Property, plant and equipment, net held and not used	2,211	2,377
Patents, net	551	636
Other assets	125	534
Total Assets	$40,317	$48,071
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities		
Trade accounts payable	$1,783	$749
Accrued salaries and benefits	625	1,361
Accrued warranty	79	36
Accrued liabilities	758	765
Note payable, current portion	794	732
Capital lease obligation – current portion	16	4
Total current liabilities	4,055	3,647
Capital lease obligation, less current portion	37	608
Total Liabilities	4,092	4,255
Stockholders' Equity		
Common stock, no par value, unlimited shares authorized;		
105,400,728 and 93,143,271 shares issued and		

outstanding at December 31, 2009 and December 31, 2008	188,515	180,105
Additional paid in capital	10,933	5,378
Accumulated deficit	(162,204)	(140,892)
Accumulated other comprehensive loss	(1,560)	(1,873)
Total Altair Nanotechnologies Inc.'s Stockholders' equity	35,684	42,718
Noncontrolling Interest in Subsidiary	541	1,098
Total Liabilities and Stockholders' Equity	$40,317	$48,071

See notes to the consolidated financial statements.

ALTAIR NANOTECHNOLOGIES INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
(Expressed in thousands of United States Dollars, except shares and per share amounts)

	Year Ended December 31,		
	2009	2008	2007
Revenues			
Product sales	$945	$757	$4,058
Less: Sales returns	(184)	-	-
License fees	750	-	-
Commercial collaborations	1,410	2,007	2,910
Contracts and grants	1,450	2,962	2,140
Total revenues	4,371	5,726	9,108
Operating Expenses			
Cost of sales – product	954	183	5,164
Cost of sales – warranty and inventory reserves	198	(2,865)	6,843
Research and development	10,323	16,908	15,444
Sales and marketing	2,819	2,950	2,001
Notes receivable extinguishment	-	1,722	-
Settlement and release	-	3,605	-
Asset impairment	1,308	-	-
General and administrative	8,943	10,590	10,770
Depreciation and amortization	2,687	2,759	1,954
Total operating expenses	27,232	35,852	42,176
Loss from Operations	(22,861)	(30,126)	(33,068)
Other Income (Expense)			
Interest expense	(107)	(97)	(134)
Interest income	188	982	1,101
Realized gain/(loss) on investment	851	(89)	-
Loss on foreign exchange	(2)	(10)	(1)
Total other income, net	930	786	966
Net Loss	(21,931)	(29,340)	(32,102)
Less: Net loss attributable to non-controlling interest	619	272	631
Net Loss Attributable to Altair Nanotechnologies Inc.	$(21,312)	$(29,068)	$(31,471)
Loss per common share - Basic and diluted	$(0.21)	$(0.34)	$(0.45)
Weighted average shares - Basic and diluted	100,177,727	85,903,712	71,008,505

See notes to the consolidated financial statements.

ALTAIR NANOTECHNOLOGIES INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY AND COMPREHENSIVE LOSS
(Expressed in thousands of United States Dollars, except shares and per share amounts)

	Altairnano, Inc. Shareholders						Noncontrolling Interest in Subsidiary			
	Common Stock		Additional Paid In	Accumulated	Accumulated Other Comprehensive Gain		Interest in	Accumulated Other Comprehensive Gain		
	Shares	Amount	Capital	Deficit	(Loss)	Subtotal	Subsidiary	(Loss)	Subtotal	Total
Balance, December 31, 2006	69,079,270	$115,990	$2,002	$(80,353)	$182	$37,821	$-	$-	$-	$37,821
Contributions from non-controlling interest							2,000		2,000	2,000
Comprehensive loss:										
Net loss	-	-	-	(31,471)	-	(31,471)	(631)	-	(631)	(32,102)
Other comprehensive loss net of taxes of $0	-	-	-	-	(667)	(667)	-	-	-	(667)
Comprehensive loss:						(32,138)			(631)	(32,769)
Share-based compensation	-	396	3,488	-	-	3,884	-	-	-	3,884
Exercise of stock options	280,914	626	-	-	-	626	-	-	-	626
Exercise of warrants	2,314,189	6,249	-	-	-	6,249	-	-	-	6,249
Issuance of restricted stock	69,909	-	-	-	-	-	-	-	-	-
Common stock issued, net of issuance costs of $2,505	12,324,095	40,519	-	-	-	40,519	-	-		40,519
Balance, December 31, 2007	84,068,377	$163,780	$5,490	$(111,824)	$(485)	$56,961	$1,369	$-	$1,369	$58,330
Comprehensive loss:										
Net loss	-	-	-	(29,068)	-	(29,068)	(271)	-	(271)	(29,339)
Other comprehensive loss net of taxes of $0	-	-	-	-	(1,388)	(1,388)	-	-	-	(1,388)
						(30,456)			(271)	(30,727)

Comprehensive loss:										
Share-based compensation	-	1,263	(112)	-	-	1,151	-	-	-	1,151
Exercise of stock options	339,211	528	-	-	-	528	-	-	-	528
Exercise of warrants	400,224	752	-	-	-	752	-	-	-	752
Issuance of restricted stock	141,746	-	-	-	-	-	-	-	-	-
Recovery of short swing profits		177	-	-	-	177	-	-	-	177
Common stock issued	8,193,713	13,605	-	-	-	13,605	-	-	-	13,605
Balance, December 31, 2008 (continued)	93,143,271	$180,105	$5,378	$(140,892)	$(1,873)	$42,718	$1,098	$-	$1,098	$43,816

ALTAIR NANOTECHNOLOGIES INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY AND COMPREHENSIVE LOSS
(Expressed in thousands of United States Dollars, except shares and per share amounts)
(Continued)

	Altairnano, Inc. Shareholders						Noncontrolling Interest in Subsidiary			
	Common Stock		Additional Paid In	Accumulated	Accumulated Other Comprehensive Gain		Interest In	Accumulated Other Comprehensive Gain		
	Shares	Amount	Capital	Deficit	(Loss)	Subtotal	Subsidiary	(Loss)	Subtotal	Total
Balance, December 31, 2008	93,143,271	$180,105	$5,378	$(140,892)	$(1,873)	$42,718	$1,098	$-	$1,098	$43,816
Contributions from non-controlling interest							62		62	62
Comprehensive loss:										
Net loss	-	-	-	(21,312)	-	(21,312)	(619)	-	(619)	(21,931)
Other comprehensive loss net of taxes of $0	-	-	-	-	313	313	-	-	-	313
Comprehensive loss:						(20,999)			(619)	(21,618)
Share-based compensation		221	931	-	-	1,152	-	-	-	1,152
Issuance of restricted stock	262,988									
Issuance of common stock, net of $1,220,735 issuance costs	11,994,469	8,189	4,624	-	-	12,813	-	-	-	12,813
Balance, December 31, 2009	105,400,728	$188,515	$10,933	$(162,204)	$(1,560)	$35,684	$541	$-	$541	$36,225

See notes to the consolidated financial statements.

ALTAIR NANOTECHNOLOGIES INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Expressed in thousands of United States Dollars, except shares and per share amounts)

	Year Ended December 31,		
	2009	2008	2007
Cash flows from operating activities:			
Net loss	$(21,931)	$(29,340)	$(32,102)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	2,687	2,759	1,954
Securities received in payment of license fees	(750)	-	(13)
Share-based compensation	1,152	1,151	3,885
Loss on disposal of fixed assets	17	382	-
Gain on sale of securities	(868)	-	-
Settlement and release	-	3,605	-
Impairment of investment	-	89	-
Asset impairment	1,308	-	-
Asset deposit	375	-	-
Accrued interest on notes receivable	-	(83)	(89)
Changes in operating assets and liabilities:			
Accounts receivable, net	276	363	(188)
Accounts receivable from related party, net	(4)	-	495
Notes receivable from related party, net	-	1,722	(1,219)
Product inventories	(4,896)	(98)	231
Prepaid expenses and other current assets	(1,247)	226	(387)
Other assets	33	-	(102)
Trade accounts payable	958	(7,075)	5,098
Accrued salaries and benefits	(736)	(878)	1,399
Accrued warranty	43	(2,880)	2,916
Accrued liabilities	(6)	5	233
Net cash used in operating activities	(23,589)	(30,052)	(17,889)
Cash flows from investing activities:			
Sale of available for sale securities	2,006	-	33,675
Purchase of available for sale securities	-	-	(23,050)
Interest on available for sale securities	6	4	4
Purchase of property and equipment	(768)	(3,046)	(4,066)
Proceeds from sale of assets	-	35	-
Net cash provided by (used in) investing activities	1,244	(3,007)	6,563

(continued)

ALTAIR NANOTECHNOLOGIES INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Expressed in thousands of United States Dollars, except shares and per share amounts)

	Year Ended December 31,		
	2009	2008	2007
Cash flows from financing activities:			
Issuance of common shares for cash, net of issuance costs	$12,813	$10,000	$40,519
Proceeds from exercise of stock options	-	528	626
Proceeds from exercise of warrants	-	752	6,248
Proceeds from recovery of short swing profits	-	177	-
Proceeds from notes payable	387	345	-
Payment of notes payable	(926)	(813)	(600)
Proceeds from long-term debt	58	12	-
Repayment of long-term debt	(15)	-	-
Contributions from non-controlling interest	62	-	2,000
Net cash provided by financing activities	12,379	11,001	48,793
Net (decrease) increase in cash and cash equivalents	(9,966)	(22,058)	37,467
Cash and cash equivalents, beginning of period	28,088	50,146	12,679
Cash and cash equivalents, end of period	$18,122	$28,088	$50,146
Supplemental disclosures:			
Cash paid for interest	$97	$133	$168
Cash paid for income taxes	None	None	None

Supplemental schedule of non-cash activities (in 000s):

For the year ended December 31, 2009:
- We recognized an impairment on AlSher Titania LLC fixed assets of $1,308.
- We recognized a realized gain of $868 on the sale of the Spectrum Pharmaceuticals stock.
- We received stock valued at $750 in payment of license from Spectrum Pharmaceuticals.
- We issued 382,115 shares of restricted stock to directors with a fair value of $397 for which no cash will be received.
- We had an unrealized loss on available for sale securities of $468.
- We made equipment purchases of $75 which are included in trade accounts payable at December 31, 2009.

For the year ended December 31, 2008:
- We issued 2,117,647 shares of stock as a settlement and release of all known claims to Al Yousuf, LLC having a fair value of $3,605 for which no cash will be received.
- We had an unrealized loss on available for sale securities of $1,387.
- We issued 141,746 shares of restricted stock to employees and directors having a fair value of approximately $303 for which no cash will be received.
- We made equipment purchases of $10 which are included in trade accounts payable at December 31, 2008.

For the year ended December 31, 2007:
- We made equipment purchases of $1,183 which are included in trade accounts payable at December 31, 2007.
- We had an unrealized loss on available for sale securities of $667.
- We issued 69,909 shares of restricted stock to employees and directors having a fair value of approximately $237 for which no cash will be received.

- We received 1,000,000 shares of common stock valued at $107 in connection with the Phoenix Motorcar, Inc. January 2007 purchase agreement. The investment was recorded with an offset to deferred revenue.

See notes to the consolidated financial statements.

ALTAIR NANOTECHNOLOGIES INC. AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEARS ENDED DECEMBER 31, 2009, 2008, AND 2007
(Expressed in United States Dollars)

1. DESCRIPTION OF BUSINESS AND BASIS OF PRESENTATION

Description of Business — We are a Canadian company, with principal assets and operations in the United States of America, whose primary business is developing and commercializing nano lithium titanate batteries. We also provide contract research services on select projects where we can utilize our resources to develop intellectual property and/or new products and technology. Our primary facilities are located in Reno, Nevada, of approximately 85,000 square feet, and in Anderson, Indiana, of approximately 70,000 square feet.

Principles of Consolidation — The consolidated financial statements include the accounts of Altair Nanotechnologies Inc. and our subsidiaries which include (1) Altair US Holdings, Inc., (2) Mineral Recovery Systems, Inc. (“MRS”), (3) Fine Gold Recovery Systems, Inc. (“FGRS”) dissolved on December 30, 2008, and (4) Altairnano, Inc. (“ANI”), (collectively referred to as the “Company”), all of which are 100% owned and (5) AlSher Titania LLC, which is 70% owned by ANI. All of the subsidiaries are incorporated in the United States of America. Inter-company transactions and balances have been eliminated in consolidation.

Basis of Presentation — The accompanying consolidated financial statements have been prepared on a going concern basis which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. As shown in the consolidated financial statements for the years ended December 31, 2009, 2008 and 2007, we incurred net losses of $21.3 million, $29.1 million, and $31.5 million, respectively. At December 31, 2009 and 2008, we had stockholders’ equity of $35.7 million and $42.7 million, respectively.

The consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might be necessary should we be unable to continue as a going concern. Our continuation as a going concern is dependent upon our ability to generate sufficient cash flow to meet our obligations on a timely basis, to obtain additional financing or refinancing as may be required, to develop commercially viable products and processes, and ultimately to establish profitable operations. We have financed operations through operating revenues and through the issuance of equity securities (common shares, convertible debentures, stock options and warrants), and debt (term notes). Until we are able to generate positive operating cash flows, additional funds will be required to support operations. We believe that current working capital, cash receipts from anticipated sales and funding through additional sales of common stock will be sufficient to enable us to continue as a going concern through 2010.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Use of Estimates — The preparation of the consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires that we 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.

Cash and Cash Equivalents — Cash and cash equivalents consist principally of bank deposits and institutional money market funds. Short-term investments that are highly liquid and have insignificant interest rate risk and maturities of 90 days or less are classified as cash and cash equivalents. Investments that do not meet the definition of cash equivalents are classified as held-to-maturity or available-for-sale.

Our cash balances are maintained in bank accounts that are insured by the Federal Deposit Insurance Corporation (“FDIC”) and Canada Deposit Insurance Corporation (“CDIC”) up to a maximum of US $250,000 and CN $100,000, respectively, per depositor. At December 31, 2008 and 2009 we had $969,000 and $1,192,000, respectively in excess of insurance limits in bank accounts insured by the FDIC or CDIC.

Investment in Available for Sale Securities — Available for sale securities (long-term) includes publicly-traded equity investments which are classified as available for sale and recorded at market value using the specific identification method. Unrealized gains and losses (except for other than temporary impairments) are recorded in other comprehensive income (loss), which is reported as a component of stockholders’ equity. We evaluate our investments on a quarterly basis to determine if a potential other than temporary impairment exists. Our evaluation considers the investees’ specific business conditions as well as general industry and market conditions.

Accounts Receivable — Accounts receivable consists of amounts due from customers for services and product sales, net of an allowance for losses. We determine the allowance for doubtful accounts by reviewing each customer account and specifically identifying any potential for loss. The allowance for doubtful accounts at December 31, 2009 was $161,000 and as of December 31, 2008 the allowance was $84,000. Actual losses related to collection of accounts receivable for the years ended December 31, 2009 and 2008 were insignificant.

Inventory – We value our inventories generally at the lower of cost (first-in, first-out method) or market. We employ a full absorption procedure using standard cost techniques. The standards are customarily reviewed and adjusted every three months. Overhead rates are recorded to inventory based on normal capacity. Any idle facility costs or excessive spoilage are recorded as current period charges. As of December 31, 2009 we recorded a $71,000 inventory valuation allowance, $45,000 of this amount was for a quality issue we experienced with our cell supplier. We recorded a 2% inventory impairment reserve on certain cells that were not manufactured to our exact specifications. As a result, approximately .5% of these cells are non-functional to date. As of December 31, 2008 we had $98,000 of total inventory and zero inventory allowance recorded.

Property, Plant and Equipment — Property, plant and equipment held and used are stated at cost less accumulated depreciation. Depreciation is recorded using the straight-line method over the following useful lives:

Furniture and office equipment	3–7 years
Vehicles	5 years

Nanoparticle production equipment	5–10 years
Building and improvements	30 years

We have property, plant and equipment that is held and not used stated at cost less accumulated depreciation. Depreciation is recorded using the straight-line method over the useful lives established for property, plant and equipment held and used.

Patents — Patents related to the nanoparticle production technology are carried at cost and amortized on a straight-line basis over their estimated useful lives, which range from 14 to 17 years.

Research and Development Expenditures — The costs of materials, equipment, or facilities that are acquired or constructed for a particular research and development project and that have no alternative future uses (in other research and development projects or otherwise) are expensed as research and development costs at the time the costs are incurred. Research and development expenditures related to materials and equipment or facilities that are acquired or constructed for research and development activities and that have alternative future uses (in research and development projects or otherwise) are capitalized when acquired or constructed. Research and development expenditures, which include the cost of materials consumed in research and development activities, salaries, wages and other costs of personnel engaged in research and development, costs of services performed by others for research and development on our behalf and indirect costs are expensed as research and development costs when incurred.

Foreign Currency Translation — Asset and liability accounts, which are originally recorded in the appropriate local currencies, are translated into U.S. dollars at year-end exchange rates. Revenue and expense accounts are translated at the average exchange rates for the period. Transaction gains and losses are included in the accompanying consolidated statements of operations. Substantially all of our assets are located in the United States of America.

Stock-Based Compensation — We measure the cost of services received in exchange for an award of equity instruments based on the grant-date fair value of the award. That cost is recognized over the period during which services are provided in exchange for the award, known as the requisite service period (usually the vesting period).

Long-Lived Assets — We evaluate the carrying value of long-term assets, including patents, when events or circumstance indicate the existence of a possible impairment, based on projected undiscounted cash flows, and recognize impairment when such cash flows will be less than the carrying values. Measurement of the amounts of impairments, if any, is based upon the difference between carrying value and fair value. Events or circumstances that could indicate the existence of a possible impairment include obsolescence of the technology, an absence of market demand for the product, and/or continuing technology rights protection. An asset impairment of $1.3 million in 2009 was recorded for AlSher Titania LLC assets, as management determined the carrying value of these assets to be greater than their projected future undiscounted cash flows. Sherwin-Williams is seeking outside financing to continue this business. We evaluated the different possibilities of outcome for AlSher Titania LLC as of December 31, 2009, and then determined their estimated fair value based on the most likely scenario of this business moving forward.

Revenue Recognition — We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred or service has been performed, the fee is fixed and determinable, and collectability is probable. Our revenues are derived from license fees, product sales, commercial collaborations and contracts and grants. License fees are recognized when the agreement is signed, we have performed all material obligations related to the particular milestone payment or other revenue component and the earnings process is complete. Revenue for product sales is recognized upon delivery of the product, unless specific contractual terms dictate otherwise. Based on the specific terms and conditions of each contract/grant, revenues are recognized on a time and materials basis, a percentage of completion basis and/or a completed contract basis. Revenue under contracts based on time and materials is recognized at contractually billable rates as labor hours and expenses are incurred. Revenue under contracts based on a fixed fee arrangement is recognized based on various performance measures, such as stipulated milestones. As these milestones are achieved, revenue is recognized. From time to time, facts develop that may require us to revise our estimated total costs or revenues expected. The cumulative effect of revised estimates is recorded in the period in which the facts requiring revisions become known. The full amount of anticipated losses on any type of contract is recognized in the period in which it becomes known. Payments received in advance relating to the future performance of services or delivery of products is deferred until the performance of the service is complete or the product is shipped. Upfront payments received in connection with certain rights granted in contractual arrangements are deferred and amortized over the related time period over which the benefits are received. Based on specific customer bill and hold agreements, revenue is recognized when the inventory is shipped to a third party storage warehouse, the

inventory is segregated and marked as sold, the customer takes the full rights of ownership and title to the inventory upon shipment to the warehouse per the bill and hold agreement. When contract terms include multiple components that are considered separate units of accounting, the revenue is attributed to each component and revenue recognition may occur at different points in time for product shipment, installation, and service contracts based on substantial completion of the earnings process.

Accrued Warranty — We provide a limited warranty for battery packs and energy storage systems, generally for three years from purchase date. A liability is recorded for estimated warranty obligations at the date products are sold. Since these are new products, the estimated cost of warranty coverage is based on cell and module life cycle testing and compared for reasonableness to warranty rates on competing battery products. As sufficient actual historical data is collected on the new product, the estimated cost of warranty coverage will be adjusted accordingly. The liability for estimated warranty obligations may also be adjusted based on specific warranty issues identified.

Non-controlling Interest — In April 2007, The Sherwin-Williams Company ("Sherwin") entered into an agreement with us to form AlSher Titania LLC ("AlSher"), a Delaware limited liability company. AlSher is a joint venture combining certain technologies of ours and Sherwin in order to develop and produce titanium dioxide pigment for use in paint and coatings and nano titanium dioxide materials for use in a variety of applications, including those related to removing contaminants from air and water. Pursuant to a Contribution Agreement dated April 24, 2007 among Sherwin, AlSher, and us, we contributed to AlSher an exclusive license to use our technology (including our hydrochloride pigment process) for the production of titanium dioxide pigment and other titanium containing materials (other than battery or nanoelectrode materials) and certain pilot plant assets with a net book value of $3,110,000. We received no consideration for the license granted to AlSher other than our ownership interest in AlSher. Sherwin agreed to contribute to AlSher cash and a license agreement related to a technology for the manufacture of titanium dioxide using the digestion of ilmenite in hydrochloric acid. As a condition to enter into the second phase of the joint venture, we agreed to complete the pigment pilot processing plant and related development activities by January 2008. The 100 ton pigment pilot processing plant was commissioned in February 2008 and the costs associated with this effort were partially reimbursed by AlSher. We contribute any work in process and fixed assets associated with completion of the pigment pilot processing plant to the AlSher joint venture. For each reporting period, AlSher is consolidated with our subsidiaries because we have a controlling interest in AlSher and any inter-company transactions are eliminated (refer to Note 1 – Basis of Preparation of Consolidated Financial Statements). The non-controlling shareholder's interest in the net assets and net income or loss of AlSher are reported as non-controlling interest in subsidiary on the condensed consolidated balance sheet and as non-controlling interest share in the condensed consolidated statement of operations, respectively.

Although we are currently continuing to work with Sherwin to identify and qualify an interested third party to purchase our interest in AlSher, these assets have been idled for all of 2009. In assessing potential outcomes it is our judgment that the most likely outcome is for the AlSher fixed assets to be of limited value to a potential buyer, if one is found. We would be able to use some of these assets in its Power and Energy Group, and the rest would be sold for scrap. Accordingly, we determined that these assets were impaired, and a $1.3 million impairment loss is reflected in our December 31, 2009 financial statements to reduce the AlSher assets net book value to $417,574.

Overhead Allocation — Facilities overhead, which is comprised primarily of occupancy and related expenses, and fringe benefit expenses are initially recorded in general and administrative expenses and then allocated to research and development and product inventories based on relative labor costs.

Net Loss per Common Share — Basic loss per share is computed using the weighted average number of common shares outstanding during the period. Diluted loss per share is computed using the weighted average number of common and potentially dilutive shares outstanding during the period. Potentially dilutive shares consist of the incremental common shares issuable upon the exercise of stock options and warrants. Potentially dilutive shares are excluded from the computation if their effect is anti-dilutive. We had a net loss for all periods presented herein; therefore, none of the stock options and warrants outstanding during each of the periods presented, as discussed in Notes 11 and 12, were included in the computation of diluted loss per share as they were anti-dilutive. Stock options and warrants to purchase a total of 11,948,649 shares as of December 31, 2009, 4,637,989 shares as of December 31, 2008 and 5,307,319 shares as of December 31, 2007 were excluded from the calculations of diluted loss per share for the years ended December 31, 2009, 2008 and 2007, respectively.

Accumulated Other Comprehensive Loss — Accumulated other comprehensive loss consists entirely of unrealized loss on the investment in available for sale securities. The components of comprehensive loss for the years ended December 31, 2009, 2008 and 2007 are as follows:

In thousands of dollars

	Year Ended December 31,		
	2009	2008	2007
Net loss	$ (21,931)	$ (29,340)	$ (32,102)
Unrealized gain/(loss) on investment in available for sale securities, net of taxes of $0	313	(1,387)	(667)
Comprehensive loss	(21,618)	(30,727)	(32,769)
Comprehensive loss attributable to the non-controlling interest	619	271	631
Comprehensive loss attributable to Altair Nanotechnologies Inc.	$ (20,999)	$ (30,456)	$ (32,138)

Deferred Income Taxes — We use the asset and liability approach for financial accounting and reporting for income taxes. Deferred income taxes are provided for temporary differences on the basis of assets and liabilities as reported for financial statement purposes and income tax purposes. We have recorded a valuation allowance against all net deferred tax assets. The valuation allowance reduces deferred tax assets to an amount that represents management's best estimate of the amount of such deferred tax assets that more likely than not will be realized.

Fair Value of Financial Instruments — Our financial instruments such as cash and cash equivalents and long-term debt, when valued using market interest rates, would not be materially different from the amounts presented in the consolidated financial statements.

Recent Accounting Pronouncements —

Adopted:

Codification

On September 30, 2009, the Company adopted changes issued by the Financial Accounting Standards Board (FASB) to the authoritative hierarchy of GAAP. These changes establish the FASB Accounting Standards Codification TM (Codification) as the source of authoritative accounting principles recognized by the FASB to be applied by nongovernmental entities in the preparation of financial statements in conformity with GAAP. Rules and interpretive releases of the Securities and Exchange Commission (SEC) under authority of federal securities laws are also sources of authoritative GAAP for SEC registrants. The FASB will no longer issue new standards in the form of Statements, FASB Staff Positions, or Emerging Issues Task Force Abstracts; instead the FASB will issue Accounting Standards Updates. Accounting Standards Updates will not be authoritative in their own right as they will only serve to update the Codification. These changes and the Codification itself do not change GAAP. Other than the manner in which new accounting guidance is referenced, the adoption of these changes had no impact on the Financial Statements.

Fair Value Accounting

On October 1, 2009, the Company adopted changes issued by the FASB to fair value accounting for liabilities. These changes clarify existing guidance that in circumstances in which a quoted price in an active market for the identical liability is not available, an entity is required to measure fair value using either a valuation technique that uses a quoted price of either a similar liability or a quoted price of an identical or similar liability when traded as an asset, or another valuation technique that is consistent with the principles of fair value measurements, such as an income approach (e.g., present value technique). This guidance also states that both a quoted price in an active market for the identical liability and a quoted price for the identical liability when traded as an asset in an active market when no adjustments to the quoted price of the asset are required are Level 1 fair value measurements.

On June 30, 2009, the Company adopted changes issued by the FASB to fair value disclosures of financial instruments. These changes require a publicly traded company to include disclosures about the fair value of its financial instruments whenever it issues summarized financial information for interim reporting periods. Such disclosures include the fair value of all financial instruments, for which it is practicable to estimate that value, whether recognized or not recognized in the statement of financial position; the related carrying amount of these financial instruments; and the method(s) and significant assumptions used to estimate the fair value. Other than the required disclosures, the adoption of these changes had no impact on the Financial Statements.

On June 30, 2009, the Company adopted changes issued by the FASB to fair value accounting. These changes provide additional guidance for estimating fair value when the volume and level of activity for an asset or liability have significantly decreased and includes guidance for identifying circumstances that indicate a transaction is not orderly. This guidance is necessary to maintain the overall objective of fair value measurements, which is that fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date under current market conditions. The adoption of these changes had no impact on the Financial Statements.

On June 30, 2009, the Company adopted changes issued by the FASB to the recognition and presentation of other-than-temporary impairments. These changes amend existing other-than-temporary impairment guidance for debt securities to make the guidance more operational and to improve the presentation and disclosure of other-than-temporary impairments on debt and equity securities. The adoption of these changes had no impact on the Financial Statements.

On January 1, 2009, the Company adopted changes issued by the FASB to fair value accounting and reporting as it relates to nonfinancial assets and nonfinancial liabilities that are not recognized or disclosed at fair value in the financial statements on at least an annual basis. These changes define fair value, establish a framework for measuring fair value in GAAP, and expand disclosures about fair value measurements. This guidance applies to other GAAP that require or permit fair value measurements and is to be applied prospectively with limited exceptions. The adoption of these changes, as it relates to nonfinancial assets and nonfinancial liabilities, had no impact on the Financial Statements. These provisions will be applied at such time a fair value measurement of a nonfinancial asset or nonfinancial liability is required, which may result in a fair value that is materially different than would have been calculated prior to the adoption of these changes.

Business Combinations and Consolidation Accounting

On January 1, 2009, the Company adopted changes issued by the FASB on April 1, 2009 to accounting for business combinations. These changes apply to all assets acquired and liabilities assumed in a business combination that arise from certain contingencies and requires (i) an acquirer to recognize at fair value, at the acquisition date, an asset acquired or liability assumed in a business combination that arises from a contingency if the acquisition-date fair value of that asset or liability can be determined during the measurement period otherwise the asset or liability should be recognized at the acquisition date if certain defined criteria are met; (ii) contingent consideration arrangements of an acquiree assumed by the acquirer in a business combination be recognized initially at fair value; (iii) subsequent measurements of assets and liabilities arising from contingencies be based on a systematic and rational method depending on their nature and contingent consideration arrangements be measured subsequently; and (iv) disclosures of the amounts and measurement basis of such assets and liabilities and the nature of the contingencies. The adoption of these changes had no impact on the financial statements.

On January 1, 2009, the Company adopted changes issued by the FASB to consolidation accounting and reporting. These changes establish accounting and reporting for the non-controlling interest in a subsidiary and for the deconsolidation of a subsidiary. This guidance defines a non-controlling interest, previously called a minority interest, as the portion of equity in a subsidiary not attributable, directly or indirectly, to a parent. These changes require, among other items, that a non-controlling interest be included in the consolidated statement of financial position within equity separate from the parent's equity; consolidated net income to be reported at amounts inclusive of both the parent's and non-controlling interest's shares and, separately, the amounts of consolidated net income attributable to the parent and non-controlling interest all on the consolidated statement of operations; and if a subsidiary is deconsolidated, any retained non-controlling equity investment in the former subsidiary be measured at fair value and a gain or loss be recognized in net income based on such fair value. Other than the change in presentation of non-controlling interests, the adoption of these changes had no impact on the Financial Statements. The presentation and disclosure requirements of these changes were applied retrospectively.

On January 1, 2009, the Company adopted changes issued by the FASB to accounting for business combinations. While retaining the fundamental requirements of accounting for business combinations, including that the purchase method be used for all business combinations and for an acquirer to be identified for each business combination, these changes define the acquirer as the entity that obtains control of one or more businesses in the business combination and establishes the acquisition date as the date that the acquirer achieves control instead of the date that the consideration is transferred. These changes require an acquirer in a business combination, including business combinations achieved in stages (step acquisition), to recognize the assets acquired, liabilities assumed, and any non-controlling interest in the acquiree at the acquisition date, measured at their fair values as of that date, with limited exceptions. This guidance also requires the recognition of assets acquired and liabilities assumed arising from certain contractual contingencies as of the acquisition date, measured at their acquisition-date fair values. Additionally, these changes require acquisition-related costs to be expensed in the period in which the costs are incurred and the services are received instead of including such costs as part of the acquisition price. The adoption of

these changes had no impact on the financial statements.

Other

On June 30, 2009, the Company adopted changes issued by the FASB to accounting for and disclosure of events that occur after the balance sheet date but before financial statements are issued or are available to be issued, otherwise known as “subsequent events.” Specifically, these changes set forth the period after the balance sheet date during which management of a reporting entity should evaluate events or transactions that may occur for potential recognition or disclosure in the financial statements, the circumstances under which an entity should recognize events or transactions occurring after the balance sheet date in its financial statements, and the disclosures that an entity should make about events or transactions that occurred after the balance sheet date. These changes did not result in significant changes in the accounting and disclosure for subsequent events.

On January 1, 2009, the Company adopted changes issued by the FASB to disclosures about derivative instruments and hedging activities. These changes require enhanced disclosures about an entity’s derivative and hedging activities, including (i) how and why an entity uses derivative instruments, (ii) how derivative instruments and related hedged items are accounted for, and (iii) how derivative instruments and related hedged items affect an entity’s financial position, financial performance, and cash flows. Other than the required disclosures, the adoption of these changes had no impact on the Financial Statements.

On January 1, 2009, the Company adopted changes issued by the FASB to accounting for intangible assets. These changes amend the factors that should be considered in developing renewal or extension assumptions used to determine the useful life of a recognized intangible asset in order to improve the consistency between the useful life of a recognized intangible asset outside of a business combination and the period of expected cash flows used to measure the fair value of an intangible asset in a business combination. The adoption of these changes had no impact on the Financial Statements.

On January 1, 2009, the Company adopted changes issued by the FASB to the calculation of earnings per share. These changes state that unvested share-based payment awards that contain non-forfeitable rights to dividends or dividend equivalents (whether paid or unpaid) are participating securities and shall be included in the computation of earnings per share pursuant to the two-class method for all periods presented. The adoption of these changes had no impact on the financial statements.

Issued

In June 2009, the FASB issued changes to the accounting for variable interest entities. These changes require an enterprise to perform an analysis to determine whether the enterprise’s variable interest or interests give it a controlling financial interest in a variable interest entity; to require ongoing reassessments of whether an enterprise is the primary beneficiary of a variable interest entity; to eliminate the quantitative approach previously required for determining the primary beneficiary of a variable interest entity; to add an additional reconsideration event for determining whether an entity is a variable interest entity when any changes in facts and circumstances occur such that holders of the equity investment at risk, as a group, lose the power from voting rights or similar rights of those investments to direct the activities of the entity that most significantly impact the entity’s economic performance; and to require enhanced disclosures that will provide users of financial statements with more transparent information about an enterprise’s involvement in a variable interest entity. These changes become effective for the Company on January 1, 2010. Management has determined that the adoption of these changes will not have an impact on the Financial Statements.

In June 2009, the FASB issued changes to the accounting for transfers of financial assets. These changes remove the concept of a qualifying special-purpose entity and remove the exception from the application of variable interest accounting to variable interest entities that are qualifying special-purpose entities; limits the circumstances in which a transferor derecognizes a portion or component of a financial asset; defines a participating interest; requires a transferor to recognize and initially measure at fair value all assets obtained and liabilities incurred as a result of a transfer accounted for as a sale; and requires enhanced disclosure; among others. These changes become effective for the Company on January 1, 2010. Management has determined that the adoption of these changes will not have an impact on the Financial Statements.

Reclassifications — Certain reclassifications have been made to prior period amounts to conform to classifications adopted in the current year.

3. INVESTMENT IN AVAILABLE FOR SALE SECURITIES

Investments in available for sale securities (long-term) consists of auction rate corporate notes and investments in common stock as discussed below.

The auction rate corporate notes are long-term instruments with expiration dates through 2017. Through the third quarter of 2007, the interest was settled and the rate reset every 7 to 28 days and historically these investments were classified as short-term investments. However, in the fourth quarter of 2007 due to the reduction of liquidity in the auction rate market, sell orders exceeded bid orders in that market, and the interest relating to these investments was reset to a contractual rate of London Interbank Offering Rate plus 50 basis points, which is not a market rate. Based on this change in the liquidity, these investments were evaluated to determine if there was impairment at December 31, 2009. Our evaluation included consultation with our investment advisors, assessment of the strength of the financial institution paying the interest on these investments, ratings of the underlying collateral, and a probability-weighted discounted cash flow analysis. Based on this analysis, we estimate that at December 31, 2009 their fair value was $2.6 million, representing a cumulative unrealized holding loss of approximately $1.3 million. Based on our evaluation of the credit ratings of the bonds underlying these auction rate corporate notes, and our ability and intent to hold the investment for a reasonable period of time sufficient for an expected recovery of fair value or until they mature in 2017, we do not consider this investment to be other than temporarily impaired at December 31, 2009.

Investment in available for sale securities (short-term) consists of 113,809 shares of Spectrum Pharmaceuticals, Inc. ("Spectrum") common stock. The shares were received as partial compensation for the assignment of all rights and title to RenaZorbTM and RenalanTM. Upon receipt, the shares were recorded at their market value as measured by their closing price on the NASDAQ Capital Market, resulting in a recorded basis of $750,000. At December 31, 2009, their fair value was $505,000 representing an unrealized holding loss of $245,000. We evaluated this investment to determine if there is an other-than-temporary impairment at December 31, 2009. Our evaluation took into consideration published investment analysis, status of drug candidates in development, analysts' recommendations, insider trading activity, and other factors. Based on our evaluation and our ability and intent to hold the investment for a reasonable period of time sufficient for an expected recovery of fair value, we do not consider this investment to be other than temporarily impaired at December 31, 2009.

4. FAIR VALUE MEASUREMENTS

Our financial instruments are accounted for at fair value on a recurring basis. Fair value is determined based on the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. A market or observable inputs is the preferred source of values, followed by assumptions based on hypothetical transactions in the absence of market inputs.

The valuation techniques are based upon observable and unobservable inputs. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect our market assumptions. These two types of inputs create the following fair value hierarchy:

Level 1 - Quoted prices for identical instruments in active markets.

Level 2 - Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations whose inputs are observable or whose significant value drivers are observable.

Level 3 - Significant inputs to the valuation model are unobservable.

The following table summarizes the valuation of our assets by the fair value hierarchy at December 31, 2009:

In thousands of dollars

Assets at fair value:	Total	Level 1	Level 2	Level 3
Auction rate corporate notes	$ 2,587	$ -	$ -	$ 2,587
Spectrum Pharmaceuticals, Inc.	505	505	-	-
Investment in available for sale securities	$ 3,092	$ 505	$ -	$ 2,587

The following table summarizes the valuation of our assets by the fair value hierarchy at December 31, 2008:

In thousands of dollars

Assets at fair value:	Total	Level 1	Level 2	Level 3
Auction rate corporate notes	$ 2,816	$ -	$ -	$ 2,816
Spectrum Pharmaceuticals, Inc.	358	358	-	-
Investment in available for sale securities	$ 3,174	$ 358	$ -	$ 2,816

The Spectrum Pharmaceuticals shares listed above at December 31, 2009 were acquired from Spectrum on August 4, 2009 when we entered into an amended agreement with Spectrum in which we transferred them the rights to RenalanTM in addition to RenaZorbTM. A component of this agreement was the payment to us of an additional 113,809 shares of Spectrum common stock.

The Spectrum Pharmaceuticals shares listed above at December 31, 2008 were received as partial payment of licensing fees when Spectrum entered into a license agreement with us for RenaZorbTM in January 2005 and in payment of the first milestone achieved in June 2006. The shares were sold during the quarter ended September 30, 2009.

The activity relating to assets valued on a recurring basis utilizing Level 3 inputs for the twelve months ended December 31, 2009 and December 31, 2008 is summarized below:

In thousands of dollars

Fair Value Measurements Using Significant Unobservable Inputs (Level 3)	Auction rate corporate notes 2009	Auction rate corporate notes 2008
Beginning Balance, January 1	$ 2,816	$ 3,912
Total gains or (losses) (realized/unrealized):		
Included in other comprehensive income	(223)	(1,092)
Other adjustments	(6)	(4)
Ending Balance, December 31	$ 2,587	$ 2,816

The amount of total gains or losses for the twelve months ended December 31, 2009 and December 31, 2008 included in other comprehensive income in Stockholder's Equity attributable to the change in unrealized gain (loss) relating to assets still held at the reporting date was $313,000 and $(1.4) million, respectively. A realized gain of $868,000 was recorded in 2009 associated with the sale of 240,000 shares of the Spectrum common stock that we held.

Financial instruments that trade in less liquid markets with limited pricing information generally include both observable and unobservable inputs. In instances where observable data is unavailable, we consider the assumptions that market participants would use in valuing the asset. Such investments are categorized in Level 3 as the inputs generally are not observable. Our evaluation included consultation with our investment advisors, assessment of the strength of the financial institution paying the interest on these investments, ratings of the underlying collateral, and a probability-weighted discounted cash flow analysis.

5. PRODUCT INVENTORIES

Product Inventories consisted of the following at December 31, 2009 and 2008:

In thousands of dollars

	2009	2008
Raw materials	$ 3,933	$ 98
Work in process	908	-
Finished goods	202	-
Total product inventories	$ 5,043	$ 98

Once products reach the commercialization stage, the related inventory is recorded. The costs associated with products undergoing research and development are expensed as incurred. As of December 31, 2008, raw materials inventory relates to lithium titanate spinel (LTO). As of December 31, 2009 inventory relates to the production of batteries targeted at the stationary power and electric bus markets.

As of December 31, 2009 we recorded a $71,000 inventory valuation allowance.

6. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment used in operations consisted of the following as of December 31, 2009 and 2008:

In thousands of dollars	2009	2008
Machinery and equipment	$ 9,116	$ 11,062
Building and improvements	4,288	5,084
Furniture, office equipment & other	1,251	838
Total	14,655	16,984
Less accumulated depreciation	(5,985)	(5,347)
Total property, plant and equipment	$ 8,670	$ 11,637

Property, plant and equipment not used in operations consisted of the following as of December 31, 2009 and 2008:

In thousands of dollars	2009	2008
Machinery and equipment	$ 5,642	$ 3,385
Building and improvements	849	-
Furniture, office equipment & other	49	-
Asset impairment	(1,308)	-
Total	5,232	3,385
Less accumulated depreciation	(3,021)	(1,008)
Total property, plant and equipment	$ 2,211	$ 2,377

Depreciation expense for the years ended December 31, 2009, 2008, and 2007 totaled $2.6 million, $2.7 million and $1.4 million, respectively.

Asset impairment of $1.3 million in 2009 relates to the expense of adjusting AlSher Titania, LLC assets to fair market value as of December 31, 2009. These assets have been temporarily idled throughout 2009 as we searched for an interested party to acquire our interests in AlSher Titania. We are in negotiations with Sherwin-Williams with respect to their potential acquisition of our interest in AlSher Titania LLC. Regardless of the closing of the sale of our interest in AlSher Titania, LLC to Sherwin-Williams, should Sherwin-Williams be unable to find an acceptable third party investor, AlSher Titania, LLC will in all likelihood be dissolved. Certain of its assets would be integrated into our Power and Energy Group and the balance of the assets would be sold or scrapped.

The remaining Performance Materials fixed assets of $609,000 at December 31, 2009 consist primarily of production assets such as mills, furnaces and laboratory equipment suited for general use in our business. These assets will be re-purposed to the Power and Energy segment to support the anticipated growth in sales volume within the next two years. These assets are expected to have in-service lives at least equal to their depreciation lives and with reasonable ongoing maintenance are expected to continue functioning throughout that period. If we are unable to commercialize our battery products, the value of these assets could be impaired, but we believe this outcome is unlikely. These assets were classified as held and used as of December 31, 2008 and were classified as held and not used as of December 31, 2009.

Life Sciences fixed assets with a net book value of $1.2 million as of December 31, 2009 are primarily building improvements that expand production and lab areas. It was determined that these improvements do add to the value of our Reno, Nevada building and the space and will be required for the expansion of Power and Energy operations based on anticipated growth in sales volume within the next two years. Failure to commercialize our battery products and a significant drop in real estate values could lead to impairment of these assets. We believe that the occurrence of such events is unlikely.

7. PATENTS

Patents consisted of the following at December 31, 2009 and 2008:

In thousands of dollars	2009	2008
Patents and patent applications	$ 1,518	$ 1,518
Less accumulated amortization	(967)	(882)
Total patents and patent applications	$ 551	$ 636

All patents are being amortized on a straight-line basis over their useful lives with a weighted average amortization period of approximately 16.5 years. Amortization expense was $84,000, for each of the years ended December 31, 2009, 2008 and 2007. For each of the next five years, amortization expense relating to intangibles is expected to be approximately $84,000 per year. We expense all costs, as incurred, associated with renewing or extending our patents.

8. ACCRUED WARRANTY

Accrued warranty consisted of the following at December 31, 2009 and 2008:

In thousands of dollars	2009	2008
Beginning Balance – January 1,	$ 36	$ 2,916
Additions	43	-
Release of obligation	-	(2,880)
Ending Balance – December 31,	$ 79	$ 36

We provided a limited warranty for battery products sold under the January 2007 purchase and supply agreement with Phoenix and the July 2007 AES development agreement. The balance of $2.9 million as of January 1, 2008 reflects a one-time adjustment of $2.9 million to record the provision for warranty claims resulting from our decision to replace 47 of the Phoenix battery packs manufactured in 2007 due to a potential module configuration problem that could result in overheating. The remaining balance of $36,000 reflects the warranty recorded in connection with the AES prototype battery pack purchase in 2007. Based on an agreement reached between Phoenix and Altair in July 2008 (refer to Note 17. Related Party Transactions), the Phoenix warranty liability was reversed. The $43,000 added to the warranty reserve during 2009 is associated with battery packs sold during 2009.

9. ACCRUED LIABILITIES

Accrued liabilities consisted of the following at December 31, 2009 and 2008:

In thousands of dollars	2009	2008
Accrued interest	$ 38	$ 77
Accrued use tax	6	11
Accrued property tax	-	44
Accrued mineral lease payments	67	67
Accrued reclamation costs	6	8
Accrued straight line rent	54	72
Deferred revenue	311	365
Accrued fees to vendors	276	121
	$ 758	$ 765

10. NOTES PAYABLE

Notes payable consisted of the following at December 31, 2009 and 2008:

In thousands of dollars	2009	2008
Note payable to BHP Minerals International, Inc.	$ 600	$ 1,200
Note payable to AICCO, Inc.	194	132
Capital leases	53	12
Less current portion	(810)	(736)
Long-term portion of capital leases	$ 37	$ 608

On August 8, 2002, we entered into a purchase and sale agreement with BHP Minerals International, Inc. (“BHP”), wherein we purchased the land, building and fixtures in Reno, Nevada where our titanium processing assets are located. In connection with this transaction, BHP also agreed to terminate our obligation to pay royalties associated with the sale or use of the titanium processing technology. In return, we issued to BHP a note in the amount of $3.0 million, at an interest rate of 7%, secured by the property we acquired. Interest did not begin to accrue until August 8, 2005. As a result, we imputed interest and reduced the face amount of the note payable by $567,000, which was then amortized to interest expense from inception of the note through August 8, 2005. Payments are due in February of each year beginning in 2006. The note and all accrued interest was paid in full in January 2010.

11. STOCK BASED COMPENSATION

At December 31, 2009, we have a stock incentive plan, administered by the Board of Directors, which provides for the granting of options and restricted shares to employees, officers, directors and other service providers of ours. This Plan is described in more detail below. The compensation cost that has been charged against income for this Plan was $1.1 million, $1.2 million, and $3.9 million for the years ended 2009, 2008 and 2007, respectively. Of this amount, $221,000, $168,000 and $822,000 was recognized in connection with restricted stock and options granted to non-employees for the years ended 2009, 2008 and 2007, respectively.

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Stock Options

The total number of shares authorized to be granted under the 2005 stock plan was increased from 3,000,000 to an aggregate of 9,000,000 based on the proposal approved at the annual and special meeting of shareholders on May 30, 2007. Prior stock option plans, under which we may not make future grants, authorized a total of 6,600,000 shares, of which options for 5,745,500 were granted and options for 241,500 are outstanding and unexercised at December 31, 2009. Options granted under the plans generally are granted with an exercise price equal to the market value of a common share at the date of grant, have five- or ten-year terms and typically vest over periods ranging from immediately to three years from the date of grant. The estimated fair value of equity-based awards, less expected forfeitures, is amortized over the awards' vesting period utilizing the graded vesting method. Under this method, unvested amounts begin amortizing at the beginning of the month in which the options are granted.

In calculating compensation recorded related to stock option grants for the years ended December 31, 2009 and 2008, the fair value of each stock option is estimated on the date of grant using the Black-Scholes-Merton option-pricing model and the following weighted average assumptions:

	2009	2008	2007
Dividend yield	None	None	None
Expected volatility	82%	76%	85%
Risk-free interest rate	1.50%	3.00%	4.60%
Expected life (years)	5.72	4.92	4.85

The computation of expected volatility used in the Black-Scholes Merton option-pricing model is based on the historical volatility of our share price. The expected term is estimated based on a review of historical and future expectations of employee exercise behavior.

A summary of option activity under our equity-based compensation plans as of December 31, 2009, and changes during the year then ended is presented below:

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at January 1, 2009	3,956,507	$ 3.03	7.4	$ 11,000
Granted	1,604,750	1.16		
Exercised	-	-		
Forfeited/expired	(641,048)	3.20		
Outstanding at December 31, 2009	4,920,209	$ 2.40	7.8	$ 2,000
Exercisable at December 31, 2009	2,219,414	$ 3.03	6.6	$ -

Shares issued to non-employees reflected in the table above include 707,667 shares outstanding at January 1, 2009, 25,000 shares granted, no shares exercised, and 199,000 shares forfeited or expired during the year ended December 31, 2009, resulting in 533,667 shares outstanding of which 415,333 shares were exercisable as of December 31, 2009.

The weighted-average grant-date fair value of options granted during 2009, 2008 and 2007 was $0.74, $1.89 and $2.05, respectively. The total intrinsic value of options exercised during the years ended December 31, 2009, 2008 and 2007 was $0, $408,000 and $511,000 respectively.

A summary of the status of non-vested shares at December 31, 2009 and changes during the year then ended, is presented below:

	Shares	Weighted Average Grant Date Fair Value
Non-vested shares at January 1, 2009	2,050,902	$ 2.92
Granted	1,604,750	1.16
Vested	(798,148)	2.96
Forfeited/Expired	(156,709)	2.65
Non-vested shares at December 31, 2009	2,700,795	$ 1.88

Non-vested shares relating to non-employees reflected in the table above include 199,501 shares outstanding at January 1, 2009, 25,000 shares granted, no shares exercised, and 106,167 shares vested during the year ended December 31, 2009, resulting in 118,334 non-vested shares outstanding at December 31, 2009.

As of December 31, 2009, there was $902,000 of total unrecognized compensation cost related to non-vested options granted under the plans. That cost is expected to be recognized over a weighted average period of one year. The total fair value of options vested during the year ended December 31, 2009 was $1.5 million.

Cash received from warrant and stock option exercises for the years ended December 31, 2009, 2008, and 2007 was $0, $1.3 million, and $6.9 million, respectively.

Warrants Issued

For the year ending December 31, 2009, 6,596,958 warrants were issued in connection with the May 28, 2009 common stock offering at a strike price of $1.00 per common share. As a result, no intrinsic value existed at the issuance date. The following assumptions were used to value the warrant cost of $4.6 million, recorded as common stock issuance cost: expected life of 7 years, volatility of 89.8%, annual rate of quarterly dividends of $0 and risk free interest rate of 1.86%. All of these warrants are outstanding at December 31, 2009.

Restricted Stock

Our stock incentive plan provides for the granting of other incentive awards in addition to stock options. During the year ended December 31, 2009, the Board of Directors approved grants of 382,115 shares of restricted stock under the plan with a weighted average fair value of $1.04 per share. Restricted shares have the same voting and dividend rights as our unrestricted common shares, vest over a two-year period and are subject to the employee's or director's continued service. Compensation cost for restricted stock is recognized in the financial statements on a pro rata basis over the vesting period.

A summary of the changes in restricted stock outstanding during the year ended December 31, 2009 is presented below:

	Shares	Weighted Average Grant Date Fair Value
Non-vested shares at January 1, 2009	164,307	$ 2.27
Granted	382,115	1.04
Vested	(120,801)	2.30
Forfeited/Expired	(119,127)	1.00
Non-vested shares at December 31, 2009	306,494	$ 1.16

As of December 31, 2009, we had $225,000 of total unrecognized compensation expense, net of estimated forfeitures, related to restricted stock which will be recognized over the weighted average period of 1.6 years.

12. WARRANTS

Warrants — Warrant activity for the years ended December 31, 2009, 2008, and 2007 is summarized as follows:

In thousands of dollars

	2009		2008		2007	
	Warrants	Weighted Average Exercise Price	Warrants	Weighted Average Exercise Price	Warrants	Weighted Average Exercise Price
Outstanding at beginning of year	681,482	$4.15	1,141,706	$3.26	3,256,525	$2.84
Issued	6,597,958	1.00	-	-	296,407	3.29
Expired	(250,000)	5.27	(60,000)	2.50	(97,037)	2.58
Exercised	-	-	(400,224)	1.88	(2,314,189)	2.70
Outstanding at end of year	7,029,440	$1.15	681,482	$4.15	1,142,706	$3.26
Currently exercisable	7,029,440	$1.15	681,482	$4.15	1,142,706	$3.26

The following table summarizes information about warrants outstanding at December 31, 2009:

	Warrants Outstanding and Exercisable		
Range of Exercise Prices	Warrants	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price
$1.00 to $2.49	6,596,958	6.4	$ 1.00
$2.50 to $3.49	231,482	2.0	3.38
$3.50 to $5.265	200,000	1.6	3.64
	7,028,440	6.1	$ 1.15

Except as noted below, the warrants were issued in conjunction with debt and equity offerings. The warrants expire on various dates ranging to May 2016.

Warrants Issued in Payment of Services

The cost associated with warrants issued as payment for outside services is estimated on the date of issuance using the Black-Scholes-Merton option-pricing model.

For the year ending December 31, 2007, 200,000 warrants were issued in connection with the Joint Development and Equipment Purchase Agreement with AES Energy Storage, LLC and the related Warrant Issuance Agreement signed on July 20, 2007. Pursuant to this agreement, an initial warrant to purchase 200,000 common shares of ours at $3.64 per share was issued. Since the Initial Warrant did not become exercisable until December 31, 2007, the fair value of the warrants was estimated at the issuance date and adjusted using variable accounting until the final vesting date occurred. Based on the following assumptions at the vesting date of expected life of 1.83 years, volatility of 43.7 %, annual rate of quarterly dividends of $0 and the risk free interest rate of 3.5%, a total of $261,000 was recorded in stock compensation expense. All of these warrants are outstanding at December 31, 2009.

13. OTHER TRANSACTIONS

For the year ending December 31, 2009, 6,596,958 warrants were issued in connection with the May 28, 2009 common stock offering at a strike price of $1.00 per common share. As a result, no intrinsic value existed at the issuance date. The following assumptions were used to value the warrant cost of $4.6 million, recorded as common stock issuance cost: expected life of 7 years, volatility of 89.8%, annual rate of quarterly dividends of $0 and risk free interest rate of 1.86%. All of these warrants are outstanding at December 31, 2009.

On December 15, 2009, the Company received a letter from Iqbal Al Yousuf resigning as a director of the Company. In connection with his service as a director of the Company, Mr. Al Yousuf was a member of the Company's Compensation, Corporate Governance and Nominations Committee. Mr. Al Yousuf's resignation was effective as of the appointment, at the request of Al Yousuf, LLC, of Alexander Lee as his successor, which occurred on December 17, 2009. Mr. Al Yousuf had been a director since October 14, 2008.

On August 14, 2009, we entered into a Demand Registration Agreement ("Revised Agreement") with Al Yousuf, LLC, a United Arab Emirates limited liability company. This Revised Agreement delays registration of Al Yousuf LLC's shares until after May 29, 2011 and retains this right of registration through November 29, 2015. Al Yousuf LLC may request a single registration under the 1933 Act of the resale of all or any portion of its Registrable Securities. The November 29, 2007 Agreement described below allowed Al Yousuf LLC the right of registration effective November 29, 2009.

On June 4, 2009, the Company expanded its Board of Directors to an aggregate of eight directors and appointed Hossein Asrar Haghighi, Chief Financial Officer of Al Yousuf Group, to fill the vacancy.

On October 14, 2008, we expanded our Board of Directors to an aggregate of eight directors and appointed Iqbal Al Yousuf to fill the vacancy. Mr. Al Yousuf was also appointed to the Board's Compensation Nominating and Governance Committee.

On October 6, 2008, we entered into a Stock Purchase and Settlement Agreement with Al Yousuf, LLC. 2,117,647 shares of common stock were issued at a fair value of $1.70 that were agreed upon as part of arms length negotiations, and were recorded as settlement expense in Operating Expense for the twelve months ended December 31,

2008. Additionally, 5,882,353 shares were acquired by Al Yousuf, LLC at a purchase price of $1.70 per share for an aggregate purchase price of $10.0 million (refer to Note 17).

On November 29, 2007 we entered into a Purchase Agreement with Al Yousuf, LLC relating to the purchase by Al Yousuf, LLC of 11,428,572 common shares of ours at a purchase price of $3.50 per share, for an aggregate purchase price of $40.0 million. The purchase closed in two stages, with a closing of 10,000,000 in shares on November 29, 2007 and a closing for the remaining shares on December 10, 2007. Total commission and expenses of $2.4 million were paid to the placement agent in connection with this transaction. We also executed a Registration Rights Agreement pursuant to which we are required to cause a registration statement registering the re-sale of the Shares to be effective on the two-year anniversary of closing, to the extent the Shares are not at such time eligible for resale without restriction under Rule 144 under the Securities Act. Al Yousuf LLC also has the right to demand a one-time underwritten registration of the Shares at any time during a six-year period beginning at the expiration of the initial two-year lockup period. The Registration Rights Agreement includes customary provisions related to indemnification of Investor and continued effectiveness of the registration statement.

In March 2007, The AES Corporation privately purchased 895,523 unregistered common shares of ours at a price of $3.35 per share. Total proceeds received relating to the purchase were $3.0 million. No underwriting commission was paid in connection with this transaction. We agreed to prepare and file a registration statement to register the shares within 30 days of the closing date of the transaction, which was effective on March 5, 2007. Due to additional time required by AES to review the registration statement and prepare related documents, the registration statement was not filed until April 10, 2007 and became effective on May 30, 2007.

14. LEASES

Operating Leases — We lease certain premises for office space and other corporate purposes. Operating lease commitments at December 31, 2009 were:

Year ending December 31:

In thousands of dollars:

2010	$313
2011	317
2012	165
Thereafter	-
Total	$795

Lease expense for the years ended December 31, 2009, 2008 and 2007 totaled $263,000, $263,000 and $167,000, respectively.

Future minimum payments on capitalized leases are as follows:

In thousands of dollars:

Year ending December 31:		
2010	$	22
2011		22
2012		17
		61
Less amount representing interest		(8)
Present value of net minimum lease payments		53
Less current maturity		(16)
Present value of net minimum leases included in long-term debt	$	37

15. INCOME TAXES

Losses before income taxes include (losses) profits relating to non-U.S. operations of $(361,000), $(3.1) million and $6.3 million in the years ended December 31, 2009, 2008 and 2007, respectively.

Because of the net operating losses and a valuation allowance on deferred tax assets, there was no provision for income taxes recorded in the accompanying consolidated financial statements for each of the three years ended December 31, 2009, 2008, and 2007.

A reconciliation of the federal statutory income tax rate (35%) and our effective income tax rates is as follows:

In thousands of dollars:

	Year Ended December 31,		
	2009	2008	2007
Federal statutory income tax benefit	$ (7,459)	$ (10,174)	$ (10,959)
Expiration of net operating loss carryforwards	1,509	517	368
Other, net	(17)	29	(95)
True up to prior tax returns	(682)	(3,481)	1,558
Exercise of incentive stock options	318	390	1,098
Valuation allowance	6,331	12,719	8,030
Total	$ -	$ -	$ -

The components of the deferred tax assets consisted of the following as of December 31, 2009 and 2008:

In thousands of dollars:

	2009	2008
Deferred tax assets:		
Net operating loss carry forwards	$ 46,938	$ 40,730
Basis difference in intangible assets	709	999
Accruals	395	619
Tax credits	465	465
Other, net	724	585
Total deferred tax assets	49,231	43,398
Deferred tax liabilities:		
Basis difference in property, plant, and equipment	(896)	(909)
Total deferred tax liabilities	(896)	(909)
Valuation allowance	(48,335)	(42,489)
Net deferred tax assets	$ -	$ -

As a result of certain realization requirements, the table of deferred tax assets shown above does not include certain deferred tax assets at December 31, 2009 and 2008 that arose directly from tax deductions related to equity compensation in excess of compensation recognized for financial reporting. Equity will be increased by approximately $27,000 if and when such deferred tax assets are ultimately realized. We use tax law ordering for purposes of determining when excess tax benefits have been realized.

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

In thousands of dollars:	2009	2008
Balance at January 1	$ 27	$ 75
Reductions based on tax positions related to the current year	-	(48)
Balance at December 31	$ 27	$ 27

The Company does not recognize interest or penalties related to unrecognized tax benefits.

The Company has no material uncertain tax positions.

Our operating loss carry-forwards include losses generated in the United States and in Canada. The net operating loss carry-forwards total approximately $133.1 million as of December 31, 2009 and will expire at various dates as follows:

2010 - 2013	$2,267,000
2014 - 2018	874,000
2019 - 2023	20,328,000
2024 - 2029	109,680,000

Due to the significant increase in common stock issued and outstanding from 2005 through 2009, Section 382 of the Internal Revenue Code may provide significant limitations on the utilization of net operating loss carry-forwards. As a result of these limitations, a portion of these loss and credit carryovers may expire without being utilized.

We are subject to taxation in the U.S., Canada and various states. We record liabilities for income tax contingencies based on our best estimate of the underlying exposures. We have not been audited by any jurisdiction since our inception in 1998. We are open for audit by the U.S. Internal Revenue Service, the Canada Revenue Agency and U.S. state tax jurisdictions from our inception in 1998 to 2009.

16. COMMITMENTS AND CONTINGENCIES

Contingencies — We are subject to claims in the normal course of business. Management, after consultation with legal counsel, believes that liabilities, if any, resulting from such claims will not materially effect our financial position or results of operations.

Litigation — We are currently not aware of any investigations, claims, or lawsuits that we believe could have a material adverse effect on our consolidated financial position or on our consolidated results of operations.

17. RELATED PARTY TRANSACTIONS

On August 14, 2009, the Company entered into a Demand Registration Agreement ("Revised Agreement") with Al Yousuf, LLC, a United Arab Emirates limited liability company (the "Investor"). This Revised Agreement delays registration of Investor's shares until after May 29, 2011 and Investor has this right of registration through November 29, 2015. The Investor may request a single registration under the 1933 Act of the resale of all or any portion of its Registrable Securities. The November 29, 2007 Agreement described below allowed investor the right of registration effective November 29, 2009.

On October 6, 2008, we entered into a Stock Purchase and Settlement Agreement dated as of September 30, 2008 with Al Yousuf, LLC. Pursuant to the agreement, we agreed to issue an aggregate of 8,000,000 common shares to Al Yousuf LLC. Of such shares, 5,882,353 shares were acquired on October 14, 2008 by Al Yousuf LLC at a purchase price of $1.70 per share, for an aggregate purchase price of $10.0 million. The remaining 2,117,647 shares were issued upon execution of the agreement in exchange for a release by Al Yousuf LLC of all potential claims arising from design concerns related to battery packs delivered to Phoenix Motorcars, Inc. in 2007, our related offer of a warranty replacement and inventory write-off, and any other known claims existing as of the date of the agreement. Under the Purchase Agreement dated November 29, 2007 between us and Al Yousuf LLC, pursuant to which Al Yousuf LLC purchased $40.0 million in common shares, we made certain representations and warranties related to our inventory, warranty reserve and similar matters that were affected by the write-off of battery inventories and warranty offer announced in March 2008. (Also refer to Note 13).

On April 20, 2008, we executed an Amended and Restated Agreement to recover Short-Swing Profits with Al Yousuf LLC. Section 16 of the Securities and Exchange Act of 1934 requires directors, officers and 10% beneficial owners of ours to disgorge any short-swing profits realized on a non-exempt purchase and sale of our securities within any six-month period. Consistent with the terms of the Recovery Agreement, we received payment in the amount of $177,000.

In March 2008, Phoenix Motorcars, Inc. completed a merger, wherein the surviving corporation, Phoenix MC, Inc. became a wholly owned subsidiary of All Electric, LLC (“AELLC”). On March 19, 2008, Phoenix MC, Inc. announced receipt of their next round of funding provided by Al Yousuf, LLC and The AES Corporation. These changes resulted in conversion of our 1,000,000 common share investment in Phoenix Motorcars, Inc. to ownership of 2,000 units in AELLC and diluted our ownership percentage in Phoenix to 1.56%. At December 31, 2008, there was no deferred revenue relating to the unamortized investment. We have concluded the investment is other-than-temporarily-impaired. A realized loss of the investment of $88,701 was recognized in December 2008. The remaining investment of $17,817 was recognized as a loss in March, 2009.

On November 29, 2007, we entered into a Purchase Agreement with Al Yousuf, LLC, a United Arab Emirates limited liability company (“Investor”) relating to the purchase by the Investor of 11,428,572 common shares (the “Shares”) of the Company at a purchase price of $3.50 per share, for an aggregate purchase price of U.S. $40 million. The purchase is set to close in two stages, with a closing for $10 million in shares having occurred at the time of signing and a closing for the remaining shares scheduled to occur on or before December 10, 2007.

On July 20, 2007, we entered into a multi-year Joint Development and Equipment Purchase Agreement with AES Energy Storage, LLC (“AES”), a subsidiary of global power leader The AES Corporation. A member of the executive management team of AES also served on our board of directors for most of 2009. However, as a result of the Company’s desire to develop its commercial relationship with AES, this executive elected to resign his position as a director of Altairnano in November of 2009. Under the terms of the agreement we worked jointly with AES to develop a suite of energy storage solutions for purchase by AES and potentially third parties. On August 3, 2007, we received an initial $1.0 million order, of which $500,000 was prepaid, in connection with the AES Joint Development and Equipment Purchase Agreement for a 500 kilowatt-hour energy storage product. This product was designed and manufactured at our Indiana facilities, and was completed in December 2007. The final installment of $500,000 was billed in June 2008 upon substantial completion of the testing of the prototype packs, of which payment was received in July 2008.

In January 2007, we entered into a multi-year purchase and supply agreement with Phoenix Motorcars, Inc., succeeded by Phoenix MC, Inc. ("Phoenix") for lithium titanate battery pack systems. Pursuant to two letter agreements with Phoenix effective in July 2008, the 2007 purchase and supply agreement was cancelled. Both parties also agreed that all representations, warranties, covenants and obligations arising under the 2007 agreement were terminated and further that each party holds the other party harmless from any and all claims, liabilities, charges, demands, grievances, and causes of action of any kind or nature. These new agreements resulted in:

- Altair agreement to ship 47 Generation 1 prototype batteries back to Phoenix for exclusive use in Phoenix demonstration vehicles. The batteries are provided to Phoenix "as is" without explicit or implied warranties.
- A commitment on the part of Phoenix to provide Altair with ten percent of the monetized value of any California Air Resources Board ZEV credits for each vehicle for which it receives them.
- The forgiveness of the Phoenix notes payable associated accrued interest and remaining accounts receivable balance.
- The reversal of the warranty accrual associated with the 47 recalled batteries.

Additionally in January 2007, Phoenix issued 1,000,000 shares of its common stock in consideration for the three-year exclusivity agreement within the United States of America included in the contract. Phoenix did not make the minimum battery pack purchases required to retain their exclusivity in 2007. The common stock received represented a 16.6% ownership interest in Phoenix. The investment was recorded at $107,000 with the offset to deferred revenue, which was recognized on a straight-line basis until our agreement was terminated in July 2008.

18. BUSINESS SEGMENT INFORMATION

Management views the Company as operating in two major business segments: Power and Energy Group, and All Other operations.

The Power and Energy Group develops, produces, and sells nano-structured lithium titanate spinel, battery cells, battery packs, and provides related design and test services. The All Others group consists of the remaining portions of the previous Life Sciences and Performance Materials groups. Management completed a thorough review of operations and strategies and determined that it was in the best interests of the shareholders for the Company to focus primarily on the Power and Energy Group. As a result of this assessment resources devoted to the Performance Materials Group and Life Sciences Group were considerably reduced and no new significant development is being pursued in those areas by the Company. For all years presented, the activity relating to the Performance Materials and Life Sciences divisions have been reclassified into All Other.

Corporate assets consist primarily of cash, short term investments, and long-lived assets. Since none of the business units has reached cash flow break-even, cash funding is provided at the corporate level to the business units. The long-lived assets primarily consist of the corporate headquarters building, building improvements, and land. As such, these assets are reported at the corporate level and are not allocated to the business segments.

Corporate expenses include overall company support costs as follows: research and development expenses; sales and marketing expense; general and administrative expenses; and depreciation & amortization of the Reno headquarters building improvements.

The accounting policies of these business segments are the same as described in Note 2 to the consolidated financial statements. Reportable segment data reconciled to the consolidated financial statements as of and for the fiscal years ended December 31, 2009, 2008, and 2007 is as follows:

In thousands of dollars:	Net Sales	Loss/(Gain) From Operations	Depreciation and Amortization	Assets
2009:				
Power and Energy Group	$ 3,249	$ 7,382	$ 1,320	$ 11,574
All Other	1,122	1,690	1,183	3,269
Corporate	-	13,789	184	25,474
Consolidated Total	$ 4,371	$ 22,861	$ 2,687	$ 40,317
2008:				
Power and Energy Group	$ 4,075	$ 5,958	$ 1,281	$ 4,207
All Other	1,651	3,709	1,311	9,728
Corporate	-	20,459	167	34,136
Consolidated Total	$ 5,726	$ 30,126	$ 2,759	$ 48,071
2007:				
Power and Energy Group	$ 5,282	$ 16,578	$ 857	$ 6,055
All Other	3,826	(1,686)	324	10,148
Corporate	-	18,174	772	57,656
Consolidated Total	$ 9,108	$ 33,068	$ 1,954	$ 73,859

In the table above, corporate expense in the Loss from Operations column includes such expenses as business consulting, general legal expense, accounting and audit, general insurance expense, stock-based compensation expense, shareholder information expense, investor relations, and general office expense.

Additions to long-lived assets in 2009 consisted of $211,000 for Corporate and $579,000 for the Power and Energy Group. In 2008, long-lived asset additions consisted of $1.6 million for the Power and Energy Group, $1.4 million for All Other Divisions, and $262,000 for Corporate.

For the year ended December 31, 2009, we had sales to 4 major customers, each of which accounted for 10% or more of revenues. Total sales to these customers for the year ended December 31, 2009 and the balance of their accounts receivable at December 31, 2009 were as follows:

In thousands of dollars: Customer	Sales – Year Ended December 31, 2009	Accounts Receivable at December 31, 2009
Power and Energy Group:		
Office of Naval Research	$ 1,198	$ 382
Proterra, LLC	$ 635	$ 117

BAE Systems	$	482	-
All Other Division:			
Spectrum Pharmaceuticals	$	751	-

For the year ended December 31, 2008, we had sales to two major customers, each of which accounted for 10% or more of revenues. Total sales to these customers for the year ended December 31, 2008 and the balance of their accounts receivable at December 31, 2008 were as follows:

In thousands of dollars:

Customer	Sales – Year Ended December 31, 2008	Accounts Receivable and Notes Receivable at December 31, 2008
Power and Energy Group:		
Office of Naval Research	$ 2,493	$ 301
All Other Division:		
Elanco Animal Health/Eli Lilly	$ 623	$ -

For the year ended December 31, 2007, we had sales to four major customers, each of which accounted for 10% or more of revenues. Total sales to these customers for the year ended December 31, 2007 and the balance of their accounts receivable at December 31, 2007 were as follows:

In thousands of dollars:

Customer	Sales – Year Ended December 31, 2007	Accounts Receivable and Notes Receivable at December 31, 2007
Power and Energy Group:		
Phoenix Motorcars, Inc.	$ 3,048	$ 1,639
Department of Energy	$ 707	$ 19
All Other Division:		
Western Oil Sands	$ 1,199	$ 204
Elanco Animal Health/Eli Lilly	$ 1,089	$ 361
Department of Energy	$ 705	$ 36

Revenues for the years ended December 31, 2009, 2008 and 2007 by geographic area were as follows:

In thousands of dollars:

Geographic information (a):	2009	2008	2007
United States	$3,843	$5,261	$7,275
Canada	2	245	1,241
Other foreign countries	526	220	592
Total	$4,371	$5,726	$9,108

(a) Revenues are attributed to countries based on location of customer.

All assets are held within the United States with the exception of a Canadian cash account having a balance of $11,999 and $146,375 in raw material inventory located in South Korea at our cell contract manufacturer.