

ALTAIR NANOTECHNOLOGIES INC  
Form S-3  
July 19, 2010

As Filed with the Securities and Exchange Commission on July 16, 2010

Registration No. 333-\_\_\_\_\_

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

FORM S-3  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933

Altair Nanotechnologies Inc.  
(Exact name of registrant as specified in its charter)

Canada  
(State or other jurisdiction of  
incorporation or organization)

33-1084375  
(I.R.S. employer  
identification number)

Terry Copeland  
Chief Executive Officer  
Altair Nanotechnologies Inc.  
204 Edison Way  
Reno, Nevada 89502  
(775) 858-3770  
(Name, address, including zip code, and  
telephone number, including area code, of  
registrant's principal executive offices and  
agent for service)

Copies to:  
  
Bryan T. Allen, Esq.  
Parr Brown Gee & Loveless  
185 South State Street, Suite 800  
Salt Lake City, Utah 84111  
Phone: (801) 257-7963  
Facsimile: (801) 532-7750

Approximate date of commencement of the proposed sale to the public: From time to time after the effective date of this Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same

offering. "

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. "

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. "

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

## CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered(1)	Number to be Registered	Proposed maximum offering price per share	Proposed maximum aggregate offering price(2)	Amount of registration fee
Common shares, without par value (3) Rights associated with common shares(3)	19,428,572	\$ 0.39	\$7,577,143	\$541(4)

- (1) In addition, the securities being registered hereunder include such indeterminate number of common shares as may be issuable with respect to the securities being registered hereunder as a result of stock splits, stock dividends or similar transactions, in each case determined in accordance with to Rule 416 under the Securities Act.
- (2) Pursuant to Rule 457(c), the offering price is calculated, solely for the purpose of calculating the registration fee, based upon the average of the high and low sales prices for the common shares as reported on The NASDAQ Capital Market on July 15, 2010.
- (3) Each common share includes an attached right arising under, and subject to the terms described in, the Amended and Restated Shareholder Rights Plan Agreement dated October 15, 1999, as amended by that certain Amendment No. 1 dated October 6, 2008 and any additional amendments, between the Registrant and Equity Transfer Services, Inc., as the Rights Agent. Until the occurrence of events described in such agreement, the rights are not exercisable, are evidenced by the Registrant's common shares and transfer automatically with, and only with, the common shares.
- (4) Fee previously paid as surplus related to Registration Statement on Form S-4, File No. 333-166140.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until this Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

PROSPECTUS

ALTAIR NANOTECHNOLOGIES, INC.

19,428,572 Common Shares

This prospectus covers the offer and sale of up to 19,428,572 common shares, without par value. Each common share includes an attached right arising under an Amended and Restated Shareholder Rights Plan Agreement dated October 15, 1999, as amended.

All of the shares that may be offered hereunder are to be offered and sold by an existing security holder and identified in the section of this prospectus entitled "Selling Shareholder." Pursuant to Rule 416 of the Securities Act of 1933, as amended, this prospectus and the related registration statement cover a presently indeterminate number of common shares issuable upon the occurrence of a stock split, stock dividend or other similar transaction.

We will not receive any of the proceeds from the sale of the shares offered in this prospectus. In the United States, our common shares are listed for trading under the symbol ALTI on The NASDAQ Capital Market. On July 15, 2010, the closing sales price of our common shares, as reported by The NASDAQ Capital Market, was \$0.38 per share.

Our principal executive offices are located at 204 Edison Way, Reno, Nevada, and our phone number is (775) 856-2500. Our website is [www.altairnano.com](http://www.altairnano.com). Information contained on our website is not a part of this prospectus or any prospectus supplement.

Carefully consider the risk factors beginning on page 3 of this prospectus before investing in the shares being offered with this prospectus.

This prospectus shall not constitute an offer to sell, or the solicitation of an offer to buy, in any state in which the offer or sale would be unlawful prior to or absent qualification under the securities laws of that state.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed on the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is July 16, 2010

TABLE OF CONTENTS

	Page
ABOUT THIS PROSPECTUS	3
RISK FACTORS	3
FORWARD-LOOKING STATEMENTS	15
USE OF PROCEEDS	15
DETERMINATION OF OFFERING PRICE	15
SELLING SHAREHOLDER	16
PLAN OF DISTRIBUTION	18
DESCRIPTION OF OUR COMMON SHARES	20
EXPERTS	23
LEGAL MATTERS	23
INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE	24
WHERE YOU CAN FIND MORE INFORMATION	24
DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION	24

## ABOUT THIS PROSPECTUS

This prospectus provides you with a description of certain risk factors associated with an investment in our common shares, a description of the contemplated offering, a description of our common shares and other information. In addition, you should read the additional information described under the heading "Incorporation of Certain Documents by Reference" on page 24 of this prospectus.

You should rely only on the information contained in, or incorporated by reference into, this prospectus and in any prospectus supplement. We have not authorized anyone to provide you with different information. The selling shareholder is not permitted to make an offer or sale of these shares in any state where the offer or sale is not permitted. You should not assume that the information contained in, or incorporated by reference into, this prospectus is accurate as of any date other than the date on the front of this prospectus.

Unless the context requires otherwise, in this prospectus supplement and the accompanying prospectus, the terms "Altair," "we," "our" and "us" refer to Altair Nanotechnologies Inc., and its subsidiaries as a combined entity, except where it is made clear that the term only means the parent company or an identified subsidiary.

## RISK FACTORS

You should carefully consider the risks described in this prospectus, in addition to the other information contained or incorporated by reference in this prospectus 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.

This offering, together with other offerings by the company, may harm the market price of, and market for, our common shares.

The common shares that may be offered and sold under this prospectus represent approximately 19% of our our issued and outstanding common shares as of the date of this prospectus. As a result, the sales, if any, by the selling shareholder pursuant to this prospectus may create downward pressure on the market price of our common shares. In addition, the company has commenced an at-the-market offering of up to \$15 million in common shares and may conduct additional offerings of common shares from time to time in the near future. The sales, if any, by the company as part of its at-the-market offering or any other offering may create downward pressure on the market price of our common shares. In addition, market participants may elect not to purchase our shares because of the actual or anticipated downward pressure placed on the market price for our common shares by this offering or separate offerings by the company, which may reduce trading volume and result in market price declines.

We may not be able to raise sufficient capital to fund our operations.

As of March 31, 2010, we had approximately \$12.3 million in cash and cash equivalents. We need additional capital in order to sustain our ongoing operations, continue testing and additional development work and acquire inventory and/or expand and operate facilities for the production of potential product orders. We expect to raise additional capital through the offer and sale of common shares, warrants and related securities. 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 in a position 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 for an extended period of time, 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 loss from operations was \$22.9 million in 2009 and \$6.1 million for the three months ended March 31, 2010. 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, the price of our common shares may fall. Factors that may affect our quarterly operating results include the following:

- fluctuations in the size, quantity 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;
    - the retention of our key employees;
- 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;
  - the pace of adoption of regulation facilitating our ability to sell our products in our target markets;
    - 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 in the stationary power market 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 may be obligated to pay a royalty on sales into the stationary power market.

In a joint development agreement we entered into in 2007 to develop a collection of advanced lithium based battery systems to provide frequency regulation and other services to the electricity generations and transmission markets, we granted a royalty of 5% of the gross revenue we realize from the sale of these jointly developed battery systems through July 20, 2012. We believe that the battery systems we are marketing are outside the scope of the royalty provisions for various reasons, primarily because they are of different design and configuration than the jointly developed product. Nevertheless, we may not prevail in our position, and as we begin generating revenue from the sale of large scale stationary batteries for use in connection with electrical transmission and regulation, we may be required to pay this royalty. This would harm our gross margins on such sales. We may also incur litigation expenses, and management attention may be diverted from the operation of our business.

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 most of these 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 contract manufacturer uses this material and other components that they acquire elsewhere to manufacture our cells and then delivers those 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 and renewables integration markets. This battery cell supplier is critical to our manufacturing process. We are currently in the process of qualifying a second contract manufacturer and expect to have this capability in place by the end of this year. However, unless and until an agreement with a second supplier is reached, we will remain dependent upon this single supplier.

We have experienced a quality issue with our existing battery cell supplier which has impacted our near-term ability to supply product to our customers. We are currently conducting validation testing and audits of the manufacturer's processes to confirm resolution of the quality issue and have authorized a conditional resumption of production. 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 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 patent applications, patents and other protective measures may not adequately protect our proprietary intellectual property.

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. Such patents and patent applications 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. Risks associated with patent applications are enhanced because patent applications of others remain confidential for a period of approximately 18 months after filing; as a result, our belief that we are the first creator or an invention or the first to patent it may prove incorrect, as information related to conflicting patents is first published or first brought to our attention;
- The patents we have been granted may be challenged, invalidated, narrowed or circumvented because of the pre-existence of similar patented or unpatented intellectual property rights or for other reasons;
- The costs associated with enforcing patents, 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 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.

We may be involved in lawsuits to protect or enforce our patents, which could be expensive, time consuming and involve adverse publicity and adverse results.

Competitors or others may infringe our patents. To counter infringement or unauthorized use, we may be required to file patent infringement claims, which can be expensive and time-consuming. Interference proceedings brought by the United States Patent and Trademark Office may be necessary to determine the priority of inventions with respect to our patent applications. Litigation or interference proceedings may result in substantial costs and be a distraction to our management.

Because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure. In addition, during the course of this litigation (even if ultimately successful), there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common shares.

In addition, in an infringement proceeding, a court may decide that a patent of ours is not valid or is unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover that technology. An adverse determination of any litigation or defense proceedings could put one or more of our patents at risk of being invalidated or interpreted narrowly and could put our patent applications at risk of not issuing.

We may not prevail in any litigation or interference proceeding in which we are involved. Even if we do prevail, these proceedings can be expensive, result in adverse publicity and distract our management.

Other parties may bring intellectual property infringement claims against us, which would be time-consuming and expensive to defend, and if any of our products or processes is found to be infringing, we may not be able to procure licenses to use patents necessary to our business at reasonable terms, if at all.

Our success depends in part on avoiding the infringement of other parties' patents and proprietary rights. We may inadvertently infringe existing third-party patents or third-party patents issued on existing patent applications. Third party holders of such patents or patent applications could bring claims against us that, even if resolved in our favor, could cause us to incur substantial expenses and, if resolved against us, could cause us to pay substantial damages. Under some circumstances in the United States, these damages could be triple the actual damages the patent holder incurs.

If we have supplied infringing products to third parties for marketing or licensed third parties to manufacture, use or market infringing products, we may be obligated to indemnify these third parties for any damages they may be required to pay to the patent holder and for any losses the third parties may sustain themselves as the result of lost sales or damages paid to the patent holder. In addition, we have, 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. Further, if a patent infringement suit were brought against us, we and our customers, development partners and licensees could be forced to stop or delay research, development, manufacturing or sales of products based on our technologies in the country or countries covered by the patent we infringe, unless we can obtain a license from the patent holder. Such a license may not be available on acceptable terms, or at all, particularly if the third party is developing or marketing a product competitive with products based on our technologies. Even if we were able to obtain a license, the rights may be nonexclusive, which would give our competitors access to the same intellectual property.

Any successful infringement action brought against us may also adversely affect marketing of products based on our technologies in other markets not covered by the infringement action. Furthermore, we may suffer adverse consequences from a successful infringement action against us even if the action is subsequently reversed on appeal, nullified through another action or resolved by settlement with the patent holder. As a result, any infringement action against us would likely harm our competitive position, be costly and require significant time and attention of our key management and technical personnel.

We may be unable to adequately prevent disclosure of trade secrets and other proprietary information.

We rely on trade secrets to protect our proprietary technologies, especially where we do not believe patent protection is appropriate or obtainable. Trade secrets are difficult to protect. We rely in part on confidentiality agreements with our employees, contractors, consultants, outside scientific collaborators and other advisors to protect our trade secrets and other proprietary information. Parties to the confidentiality agreements may have such agreements declared unenforceable or, even if the agreements are enforceable, may breach such agreements. Remedies available in connection with the breach of such agreements may not be adequate, or enforcing such agreement may be cost prohibitive. Courts outside the United States may be less willing to protect trade secrets. In addition, others may

independently discover our trade secrets or independently develop processes or products that are similar or identical to our trade secrets. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection would harm our competitive business position.

7

---

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, mass transit 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, particularly project financing;
- 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 in 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. 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.

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 elect not to, or be unable to finance and continue AlSher Titania LLC or a related enterprise using our pigment production technology, in which case we would not receive any revenues or royalties related to such technology.

We transferred to Sherwin-Williams our 70% interest in AlSher Titania LLC, which holds an exclusive license to use our intellectual property relating to the Altairnano Hydrochloride Process for the production of pigments and similar powders or materials. Under agreements related to the transfer, we received no upfront consideration, and our right to receive a percentage of revenue over time is capped at \$3,000,000 in the aggregate. Our receipt of any revenue under our agreement is tied to Sherwin-Williams or AlSher continuing to develop and exploit the technology, over which we have no control or influence. It is uncertain that we will receive any proceeds related to our pigment technology and unlikely that total revenues will be significant in the long term.



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 a decrease in gross profits) from that segment of our business and/or significant liabilities, which would harm our business, operations and financial condition.

If we are sued on a product liability claim, our insurance policies may not be sufficient.

Although we maintain general liability insurance and product liability insurance, our insurance may not cover all potential types of product liability claims to which manufacturers are exposed or may not be adequate to indemnify us for all liability that may be imposed. Any imposition of liability that is not covered by insurance or is in excess of our insurance coverage could harm our business, including our relationships with current customers and our ability to attract and retain new customers. In addition, if the liability were substantial relative to the size of our business, any uncovered liability could harm our liquidity and ability to continue as a going concern.

Laws regulating the manufacture or transportation of batteries may be enacted which could result in a delay in the production of our batteries or the imposition of additional costs that could harm our ability to be profitable.

At the present time, international, federal, state and local laws do not directly regulate the storage, use and disposal of the component parts of our batteries. However, laws and regulations may be enacted in the future which could impose environmental, health and safety controls on the storage, use and disposal of certain chemicals and metals used in the

manufacture of lithium polymer batteries. Satisfying any future laws or regulations could require significant time and resources from our technical staff, including those related to possible redesign which may result in substantial expenditures and delays in the production of our product, all of which could harm our business and reduce our future profitability.

The transportation of lithium and lithium-ion batteries is regulated both domestically and internationally. Under recently revised United Nations recommendations and as adopted by the International Air Transport Association, our batteries and battery systems currently fall within the level such that they are not exempt and require a Class 9 designation for transportation. The revised United Nations recommendations are not U.S. law until such time as they are incorporated into the Hazardous Material Regulations of the U.S. Department of Transportation, or DOT. However, DOT has proposed new regulations harmonizing with the U.N. guidelines. At present it is not known if or when the proposed regulations would be adopted by the United States. Although we fall under the equivalency levels for the United States and comply with all safety packaging requirements worldwide, future DOT or IATA approval process could require significant time and resources from our technical staff and, if redesign were necessary, could delay the introduction of new products.

If our warranty expense estimates differ materially from our actual claims, or if we are unable to estimate future warranty expense for new products, our business and financial results could be harmed.

Our warranty for our products ranges from one to three years from the date of sale, depending on the type of product and its application. We expect that in the future some of our warranties may extend for longer periods. Because our supply arrangements are negotiated, the scope of our product warranties differ substantially depending upon the product, the purchaser and the intended use; however, we have granted and may grant broad warranties, addressing such issues as leakage, cycle life and decline in power. We have a limited product history on which to base our warranty estimates. Because of the limited operating history of our batteries and battery systems, our management is required to make assumptions and to apply judgment regarding a number of factors, including anticipated rate of warranty claims, the durability and reliability of our products, and service delivery costs. Our assumptions could prove to be materially different from the actual performance of our batteries and battery systems, which could cause us to incur substantial expense to repair or replace defective products in the future and may exceed expected levels against which we have reserved. If our estimates prove incorrect, we could be required to accrue additional expenses from the time we realize our estimates are incorrect and also face a significant unplanned cash burden at the time our customers make a warranty claim, which could harm our operating results.

In addition, with our new products and products that remain under development, we will be required to base our warranty estimates on historical experience of similar products, testing of our batteries under laboratory conditions and limited performance information learned during our development activities with the customer. As a result, actual warranty claims may be significantly different from our estimates and our financial results could vary significantly from period-to-period.

Product liability or other claims could cause us to incur losses or damage our reputation.

The risk of product liability claims and associated adverse publicity is inherent in the development, manufacturing and sale of batteries and battery system. Certain materials we use in our batteries, as well as our batteries and battery systems, could, if used improperly, cause injuries to others. Improperly charging or discharging our batteries could cause fires. Any accident involving our batteries or other products could decrease or even eliminate demand for our products. Because some of our batteries are designed to be used in electric and hybrid electric buses, and because vehicle accidents can cause injury to persons and damage to property, we are subject to a risk of claims for such injuries and damages. In addition, we could be harmed by adverse publicity resulting from problems or accidents caused by third party products that incorporate our batteries. We could even be harmed by problems or accidents involving competing battery systems, if the market viewed our batteries as being vulnerable to similar problems. Any such claims, loss of customers or reputation harm would harm our financial results and ability to continue as a going concern.

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 experts 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.

If securities or industry analysts do not publish or cease publishing research or reports about us, our business or our market, or if they change their recommendations regarding our common shares, our stock price and trading volume could decline.

The trading market for our common shares is influenced by the research and reports that industry or securities analysts may publish about us, our business, our market or our competitors. If any of the analysts who may cover us change their recommendation regarding our common shares adversely, or provide more favorable relative recommendations about our competitors, the price of our common shares would likely decline. If any analyst who may cover us were to cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial market, which in turn could cause the price or trading volume of our common shares to decline.

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 the 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 but that we would be given an initial grace period of 180 days to regain compliance with the Rule. On June 22, 2010, we received a letter from The NASDAQ Stock Market indicating that we had not regained compliance with the \$1.00 per share minimum bid requirement during the initial grace period set out in a previous letter from NASDAQ. NASDAQ stated, however, that on June 21, 2010, we satisfied all initial inclusion criteria for the NASDAQ Capital Market other than the minimum bid price requirement and that, as a result, we will be provided an additional 180 day period, or until December 20, 2010, to regain compliance.

According to the letter, if at any time before December 20, 2010, the bid price of our common shares closes at \$1.00 per share or more for a minimum of 10 consecutive business days (subject to increase to 20 consecutive business days in NASDAQ's discretion), NASDAQ will provide written notification that we comply with the minimum bid price rule. If compliance with the minimum bid price rule is not demonstrated by December 20, 2010, NASDAQ will provide written notification that our common shares will be delisted, subject to the our right to appeal. At the close of the extended grace period, if we have not regained compliance, 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 trade at or above \$4.00 per share.

Our shareholders have authorized our board of directors to effect a consolidation of our common shares.

Our shareholders have approved a resolution authorizing our board of directors, without further approval of the shareholders, to take all steps necessary to effect, or in its discretion not to effect, at any time on or before May 1, 2011, a consolidation (also known as a reverse split) of our common shares on the basis of a ratio within the range from 3:1 to 10:1, with any fractional share that remains after all shares beneficially held by a holder of the common shares have been consolidated being rounded up to a whole common share, with the ratio to be selected and implemented by the Board of Directors in its sole discretion. As of the date of this prospectus, based upon its qualification for the 180 day additional grace period ending December 20, 2010 for continued listing on the NASDAQ Capital Market, our Board of Directors has elected to defer any decision with respect to effecting the consolidation. It expects, however, to implement a consolidation prior to May 1, 2011 and reserves the right to do so at any time, subject to regulatory restrictions. Any decision to effect the consolidation, and even the existence of the authority to effect the consolidation, may harm the market price of, and trading volume in, our common shares.

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 U.S. 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.

#### FORWARD-LOOKING STATEMENTS

This prospectus contains and incorporates by reference certain forward-looking statements regarding our anticipated financial condition, results of operations and businesses in the future, including management's beliefs, projections and assumptions concerning future results and events. These forward-looking statements may, but do not necessarily, include words such as "believes," "expects," "anticipates," "intends," "plans," "estimates," "may," "will," "should," "could," "potential," "continue" or similar expressions. Forward-looking statements are not guarantees. They involve known and unknown risks, uncertainties and other factors that may cause actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Our future results may differ materially from those expressed in these forward-looking statements. Some of the factors that may cause actual results to differ materially from those contemplated by such forward-looking statements include, but are not limited to, those identified under "Risk Factors" above and in the annual and quarterly reports we file with the SEC.

Given these risks and uncertainties, you are cautioned not to place undue reliance on any forward-looking statements, which speak only as of the date of the document in which they are contained. We do not undertake any obligation to update any forward-looking statement or to publicly announce any revision of any forward-looking statement to reflect the occurrence of any future developments or events.

#### USE OF PROCEEDS

The aggregate proceeds to the selling shareholder from the sale of the common shares offered by them will be the purchase price of the common shares, less any applicable discounts or commissions. We will not receive any of the proceeds from this offering.

#### DETERMINATION OF OFFERING PRICE

The offering price of the common shares offered by this prospectus is being determined by the selling shareholder on a transaction-by-transaction basis based upon factors that the selling shareholder considers appropriate. The offering prices determined by the selling shareholder may, or may not, relate to a current market price but should not, in any case, be considered an indication of the actual value of the common shares. We do not have any influence over the price at which the selling shareholder offers or sells the common shares offered by this prospectus.

## SELLING SHAREHOLDER

All of the offered shares are to be sold by an existing shareholder. The selling shareholder, Al Yousuf, LLC, a United Arab Emirates limited liability company, acquired the common shares that may be offered and sold hereby in the following transactions.

Pursuant to a Purchase Agreement (the “Purchase Agreement”) dated November 29, 2007, the selling shareholder purchased 11,428,572 common shares at a purchase price of \$3.50 per share, for an aggregate purchase price of U.S. \$40 million. We paid a placement agent a 6% commission in connection with such transaction. Simultaneously with the Purchase Agreement, we executed a Registration Rights Agreement (the “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. This period was extended to thirty-months pursuant to an amendment dated August 14, 2009 and further amended to permit delay of the filing of such registration statement until May 29, 2010. The Registration Rights agreement also includes demand registration rights that extend until November 29, 2015. The Registration Rights Agreement includes customary provisions related to indemnification of the selling shareholder and continued effectiveness of any registration statement.

On October 6, 2008, we entered into a Stock Purchase and Settlement Agreement with the selling shareholder (the “Settlement Agreement”). Pursuant to the Settlement Agreement, we issued aggregate of 8,000,000 common shares to the selling shareholder. Of such shares, 5,882,353 shares were being acquired at a purchase price of \$1.70 per share, for an aggregate purchase price of \$10,000,000. The remaining 2,117,647 shares were issued upon execution of the Settlement Agreement in exchange for a release by the selling shareholder 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 Settlement Agreement. Concurrent with the Settlement Agreement, we entered into an amendment to the Registration Rights Agreement extending our registration obligations to the shares issued in that transaction.

Each of the Purchase Agreement and the Settlement Agreement includes a lock-up provision under which the selling shareholder is prohibited from transferring any of the shares issued pursuant to the agreement for at least two years and providing for the release of one-third of the shares on each of the second, third, and fourth anniversaries of the initial closing under the agreement. The table below sets forth the date on which such the Al Yousuf Shares have been, or will be, released from lock up restrictions, the number of Al Yousuf Shares to be released on each date and the total number of Al Yousuf Shares released from lock up restrictions on such date.

Date of Release from Lockup	Number of Shares Released on Such Date	Total Released as of Such Date
11/29/2009	3,809,524	3,809,524
9/30/2010	2,666,667	6,476,191
11/29/2010	3,809,524	10,285,715
9/30/2011	2,666,667	12,952,381
11/29/2011	3,809,524	16,761,905
9/30/2012	2,666,667	19,428,572

Based upon information provided by the selling shareholder, we believe that it holds an additional approximately 666,466 common shares which were not acquired under one of the purchase agreements described above and that directors affiliated with Al Yousuf, LLC have donated to it rights with respect to 300,825 restricted shares earned in connection with their service.





In addition, in connection with an at-the-market offering by the company, the selling shareholder has agreed to certain lock-up provisions with regard to future sales of our common shares and other securities convertible into or exercisable or exchangeable for common shares for a period of 90 days after June 9, 2010

The Settlement Agreement also includes certain special rights for the selling shareholder. The selling shareholder was granted a right of first offer, permitting it to purchase a percentage of the common shares offered in certain future offerings equal to its percentage ownership of our common shares. The selling shareholder was also granted the right to appoint two directors to our Board of Directors. The two rights expire on the earliest to occur of (i) the first date on which the shares acquired by the shareholder from us constitute no more than 10% of the outstanding common shares (calculated on a fully diluted basis), (ii) the first date the market price of the common shares has exceeded \$4.50 (adjusted for stock splits, consolidations and similar transactions) for 60 consecutive trading days, and (iii) the sale of substantially all of our assets, a merger in which our shareholders prior to the transaction own less than 50% of the surviving entity, or a similar change of control transaction.

This registration statement is filed pursuant to our covenants under the Registration Rights Agreement, and the shares issued pursuant to the Purchase Agreement and Settlement constitute the shares registered in this offering.

The table below sets forth, as of June 30, 2010:

- the name of the selling shareholder;
- certain beneficial ownership information with respect to the selling shareholder;
- the number of shares that may be sold from time to time by the selling shareholder pursuant to this prospectus; and
- the amount (and, if 1% or more, the percentage) of common shares to be owned by the selling shareholder if all offered shares are sold.

Beneficial ownership is determined in accordance with SEC rules and generally includes voting or investment power with respect to securities. Common shares that are issuable upon the exercise of outstanding options, warrants or other purchase rights held by a selling shareholder, to the extent exercisable within 60 days of June 30, 2010, are treated as outstanding for purposes of computing the selling shareholder's ownership of outstanding common shares and percentage ownership.

We believe that voting and investment power with respect to shares shown as beneficially owned by the selling shareholder resides with the entities and individuals identified in the footnotes to the table below. There can be no assurance that any of the shares offered hereby will be sold.

Beneficial Owner	Beneficial Ownership Before Offering		Number of Shares Being Offered	Beneficial Ownership upon Completion of the Offering(1)	
	Number of Shares	Percent(2)		Number of Shares	Percent
Al Yousuf, LLC(3)	20,395,863	18.8%	19,428,572	967,291	*

\* Represents less than 1% of the outstanding common shares.

(1) Assumes the sale by the selling shareholder of all of the shares offered hereunder by the selling shareholder. There can be no assurance that any of the shares offered hereby will be sold.

(2)

The percentages set forth above have been computed assuming the number of shares of common stock outstanding equals the sum of (a) 107,973,051, which is the number of common shares actually outstanding on June 30, 2010, and (b) common shares subject to warrants, options and similar securities exercisable to purchase common stock within 60 days of such date by the selling shareholder with respect to which such percentage is calculated.

- (3) Eqbal Al Yousuf has voting and investment control over these securities.

The selling shareholder may be deemed to be an affiliate of the company on account of its ownership of more than 10% of our outstanding common shares. In addition, as noted above, the selling shareholder has the right to designate two nominees for director and has nominated Alexander Lee and Hossein Asrar Haghghi, both of whom serve on our Board of Directors as of the date of this prospectus.

The selling shareholder has certified to us that it is not a broker-dealer or an affiliate of a broker dealer.

## PLAN OF DISTRIBUTION

### General

The selling shareholder, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling common shares or interests in common shares received after the date of this prospectus from the selling shareholder as a gift, pledge, partnership distribution, or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of its common shares or interests in common shares on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The selling shareholder may use any one or more of the following methods when disposing of shares or interests therein:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
  - purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
    - an exchange distribution in accordance with the rules of the applicable exchange;
    - privately negotiated transactions;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling shareholder to sell a specified number of such shares at a stipulated price per share;
  - a combination of any such methods of sale; and
  - any other method permitted pursuant to applicable law.

The selling shareholder may, from time to time, pledge or grant a security interest in some or all of the common shares owned by it and, if it defaults in the performance of its secured obligations, the pledgees or secured parties may offer and sell the common shares, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending the list of selling shareholders to include the pledgee, transferee or other successors in interest as selling shareholders under this prospectus. The selling shareholder may also transfer the common shares in other circumstances, in which case the transferees, pledgees, or

other successors in interest will be the selling beneficial owners for purposes of this prospectus.

The selling shareholder may also sell shares by means of short sales to the extent permitted by United States securities laws. Short sales involve the sale by a selling shareholder, usually with a future delivery date, of common shares that the seller does not own. Covered short sales are sales made in an amount not greater than the number of shares subject to the short seller's option, exchange right or other right to acquire common shares. A selling shareholder may close out any covered short position by either exercising its options or exchange rights to acquire common shares or purchasing shares in the open market. In determining the source of shares to close out the covered short position, a selling shareholder will likely consider, among other things, the price of common shares available for purchase in the open market as compared to the price at which it may purchase common shares pursuant to its options or exchange rights.

Naked short sales are any sales in excess of the number of shares subject to the short seller's options, exchange right or other right to acquire common shares. A selling shareholder must close out any naked position by purchasing shares. A naked short position is more likely to be created if a selling shareholder is concerned that there may be downward pressure on the price of the common shares in the open market.

The existence of a significant number of short sales generally causes the price of the common shares to decline, in part because it indicates that a number of market participants are taking a position that will be profitable only if the price of the common shares declines. Purchases to cover naked short sales may, however, increase the demand for the common shares and have the effect of raising or maintaining the price of the common shares.

The selling shareholder may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities that require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The selling shareholder also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act, provided that it meets the criteria and conforms to the requirements of that rule.

The selling shareholder and any underwriters, broker-dealers or agents that participate in the sale of the common shares or interests therein may be "underwriters" within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. Selling shareholders who are "underwriters" within the meaning of Section 2(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act.

To the extent required, the common shares to be sold, the name of selling shareholders, the respective purchase prices and public offering prices, the names of any agents, dealers or underwriters, and any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

#### Expenses, Indemnification and Registration Obligations

We are paying the expenses incurred in connection with preparing and filing this prospectus and the registration statement to which it relates, other than selling commissions. We have not retained any underwriter, broker or dealer to facilitate the offer or sale of the shares offered hereby. We will pay no underwriting commissions or discounts in connection therewith.

We have agreed to indemnify the selling shareholder against liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the shares offered by this prospectus.

We have agreed with the selling shareholder to keep the registration statement of which this prospectus constitutes a part effective until the earlier of (i) such time that all of the shares have been sold or (ii) the date when the shares are eligible for resale pursuant to Rule 144(k) (superseded by Rule 144(b)(1)) promulgated under the Securities Act.

### Passive Market Making

We have advised the selling shareholder that while it is engaged in a distribution of the shares offered pursuant to this prospectus, it is required to comply with Regulation M promulgated under the Securities Exchange Act of 1934, as amended. With certain exceptions, Regulation M precludes the selling shareholder, any affiliate purchasers and any broker-dealers or other persons who participate in the distribution from bidding for or purchasing, or attempting to induce any person to bid for or purchase, any security that is subject to the distribution until the entire distribution is complete. Regulation M also restricts bids or purchases made in order to stabilize the price of a security in connection with the distribution of that security. We do not intend to engage in any passive market making or stabilization transactions during the course of the distribution described in this prospectus. All of the foregoing may affect the marketability of the shares offered pursuant to this prospectus.

### Limitations

We have advised the selling shareholder that the offered securities may not be offered or sold in any state unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available with respect to such offers or sales. In addition, we have advised the selling shareholder that, to the extent necessary to comply with governing state securities laws, the offered securities should be offered and sold in such jurisdictions only through registered or licensed brokers or dealers.

## DESCRIPTION OF OUR COMMON SHARES

### Our Common Shares

Our authorized capital stock consists of an unlimited number of shares of common shares, without par value. The rights of our stockholders are governed by our charter documents and that certain Amended and Restated Shareholder Rights Plan Agreement, dated October 15, 1999, by and between the company and Equity Transfer Services Inc. (the “Rights Agent”), as further amended by that certain Amendment No. 1 to Amended and Restated Shareholder Rights Plan Agreement dated October 6, 2008 (collectively, the “Rights Agreement”).

Holders of common shares are entitled to one vote per share on all matters to be voted on by our shareholders. There is no cumulative voting with respect to the election of directors. The holders of common shares are entitled to receive dividends, if any, as may be declared from time to time by our Board of Directors in its discretion from funds legally available therefor. Upon liquidation, dissolution or winding up of the company, the holders of common shares are entitled to receive ratably any assets available for distribution to shareholders. The common shares have no preemptive or other subscription rights, and there are no conversion rights or redemption or sinking fund provisions with respect to such shares. All of the outstanding common shares are fully paid and nonassessable. Each common share includes an attached right arising under, and subject to the terms described in, the Rights Agreement. The terms of such rights are summarized in “Change of Control Provisions Applicable to Our Common Shares” below.

As of June 30, 2010, we had 107,973,051 common shares outstanding held by approximately 425 holders of record. In addition, as of the same date, we have reserved 6,145,069 common shares for issuance upon exercise of options that have been granted under our employee stock option plans and 7,028,440 common shares for issuance upon exercise of outstanding warrants. In addition, pursuant to a Warrant Issuance Agreement dated July 20, 2007, we agreed to issue to an affiliate of The AES Corporation additional warrants (each, a “Milestone Warrant”) to purchase company common shares based on a formula derived from revenue received from sales of energy storage systems to AES and its affiliates during the term of a joint development agreement. The number of Milestone Warrants we may

be required to issue is subject to an aggregate cap of 1.8 million Milestone Warrants. The Milestone Warrants are to be issued annually by March 31 with respect to the prior year, have a four-year term and have an exercise price equal to the greater of (i) \$3.64 and (ii) the closing price on January 31 of the year of issuance less \$5.00. No Milestone Warrants have been issued pursuant to such agreement.

#### Change of Control Provisions Applicable to Our Common Shares

Neither our articles of continuance nor our bylaws contain any provision that would delay, defer or prevent a change in control of the company. We have, however, adopted the Rights Agreement.



Pursuant to the Rights Agreement, on November 27, 1998, which is the record date, our Board of Directors authorized and declared a distribution of one right with respect to each common share issued and outstanding as of the record date and each common share issued thereafter prior to the expiration time (as defined below). The rights are subject to the terms and conditions of the Rights Agreement. A copy of the Amended and Restated Shareholder Rights Plan Agreement is attached as Exhibit 10.1 to the Current Report on Form 8-K filed with the SEC on November 18, 1999 and a copy of the Amendment No. 1 to such agreement is attached as Exhibit 10.3 to the Current Report on Form 8-K filed with the SEC on October 6, 2008. A copy of the Rights Agreement is also available upon written request to us. Because it is a summary, the following description of the rights and the Rights Agreement necessarily omits certain terms, exceptions, or qualifications to the affirmative statements made therein. The reader is advised to review the entire Rights Agreement prior to making any investment decision.

#### Certain Key Terms of the Rights Prior to Flip-In Date.

Prior to the date a transaction or event occurs by which a person, called an acquiring person, becomes the owner of 15% or more of the outstanding common shares and other shares entitled to vote for the election of directors, which event is a Flip-in Event, each right entitles the holder thereof to purchase one-half common share for the price of \$20 (which exercise price and number are subject to adjustment as set forth in the Rights Agreement). Notwithstanding the foregoing, no Right shall be exercisable prior to the commencement date. The commencement date is the close of business on the eighth business day after the earlier of (a) the date of a public announcement or disclosure by the company or an acquiring person of facts indicating that a person has become an acquiring person, or (b) the date of commencement of, or first public announcement of, the intent of any person to commence a bid for a number of voting shares that would give the bidder beneficial ownership of 15% or more of the issued and outstanding voting shares, referred to as a Take-over Bid.

#### Certain Key Terms of the Rights Following Flip-In Date.

Section 3.1 of the Rights Agreement includes a provision, referred to as a conversion provision, which provides that, subject to certain exceptions, upon the occurrence of a Flip-in Event, each right shall be adjusted so as to constitute a right to purchase from us for \$20, as adjusted, a number of common shares having an aggregate market price of four times \$20 (as adjusted). The market price is determined by averaging the closing price of the common shares on the primary exchange for the common shares for the 20 trading days preceding the date of determination. In addition, upon the occurrence of any Flip-in Event (if not subsequently deemed not to have occurred under the Rights Agreement), any rights owned by the acquiring person, its affiliates, or certain assignees become null and void. Any rights certificate subsequently issued upon transfer, exchange, replacement, adjustment, or otherwise with respect to common shares owned by any of the foregoing persons shall bear a legend indicating the extent to which such rights are void. Rights held by us or our subsidiaries are also void.

#### Exceptions, Redemption and Waiver.

The definitions of Flip-in Event and certain related terms are subject to exceptions, certain of which are summarized below. Nevertheless, to understand each such exception and how they may interrelate, the reader is advised to review the Rights Agreement. Despite a person's acquisition of 15% or more of our voting shares, a Flip-in Event shall be deemed not to have occurred or shall have no effect if:

- (1) the acquiring person is the company or an entity controlled by the company;
- (2) the acquiring person is an underwriter who becomes the beneficial owner of 15% or more voting shares in connection with a distribution of securities pursuant to an underwriting agreement with us;

(3) the transaction by which the person becomes an acquiring person is a voting share reduction, which is an acquisition or redemption of voting shares by us which, by reducing the number of outstanding common shares, has the incidental effect of increasing the acquiring person's ownership percentage;

(4) the transaction by which the person becomes an acquiring person is an acquisition with respect to which our Board of Directors has waived the conversion provision because:

(a) our Board of Directors has determined prior to the commencement date that a person became an acquiring person by inadvertence and, within 10 days of such determination, such person has reduced its beneficial ownership of common shares so as not to be an acquiring person;

(b) our Board of Directors acting in good faith has determined, prior to the occurrence of a Flip-in Event, to waive application of the conversion provision, referred to as a discretionary waiver;

(c) our Board of Directors determines within a specified time period to waive application of the conversion provision to a Flip-in Event, provided that the acquiring person has reduced, or agreed to reduce, its beneficial ownership of voting shares to less than 15% of the outstanding issue of voting shares, referred to as a waiver following withdrawal.

(5) the acquisition by which the person becomes an acquiring person is an acquisition pursuant to (a) a dividend reinvestment plan or share purchase plan made available to all holders of voting shares; (b) a stock dividend, stock split or similar event pursuant to which the acquiring person receives common shares on pro rata basis with all members of the same class or series; (c) the acquisition or exercise of rights to purchase voting shares distributed to all holders of voting shares; (d) a distribution of voting shares or securities convertible into voting shares offered pursuant to a prospectus or by way of a private placement, provided the acquiring person does not thereby acquire a greater percentage of the voting shares or convertible securities offered than the person's percentage of voting shares beneficially owned immediately prior to such acquisition.

(6) such person is Al Yousuf, LLC, a United Arab Emirates limited liability company ("Al Yousuf"); provided, however, such exception is not applicable to Al Yousuf in the event that Al Yousuf shall, after its execution of that certain Stock Purchase and Settlement Agreement (the "Purchase and Settlement Agreement"), dated October 6, 2008, by and between the Company and Al Yousuf (a) increase its beneficial ownership percentage of voting shares by more than 1% above its beneficial ownership percentage of voting shares as a result of its execution of the Purchase and Settlement Agreement, other than through the issuance of shares pursuant to the Purchase and Settlement Agreement, a voting share reduction, an exempt acquisition or a pro rata acquisition, or (b) commence a Take-over Bid that would, if consummated, increase its beneficial ownership percentage of voting shares by more than 1% above its beneficial ownership percentage of voting shares as a result of its execution of the Purchase and Settlement Agreement

In addition, (i) when a Take-over Bid is withdrawn or otherwise terminated after the commencement date has occurred, but prior to the occurrence of a Flip-in Date, or (ii) if the Board of the Directors grants a waiver following withdrawal, our Board of Directors may elect to redeem all outstanding rights at the price of Cdn. \$.0000001 per right (as adjusted). Upon the rights being redeemed pursuant to the foregoing provision, all provisions of the Rights Agreement shall continue to apply as if the commencement date had not occurred, and we shall be deemed to have issued replacement rights to the holders of its then outstanding common shares.

In addition, our Board of Directors may, at any time prior to the first date of public announcement or disclosure by us or an acquiring person of facts indicating that a person has become an acquiring person, or announcement date, elect to redeem all, but not less than all, of the then outstanding rights at the \$.0000001 per share (as adjusted). Moreover, in the event a person acquires voting shares pursuant to a discretionary waiver, our Board of Directors shall be deemed to have elected to redeem the rights at \$.0000002 per share (as adjusted). Within 10 days after our Board of Directors elects, or is deemed to have elected, to redeem the rights, our Board of Directors shall give notice of redemption to the holders of the then outstanding rights and, in such notice, described the method of payment by which the redemption price will be paid. The rights of any person under the Rights Agreement or any right, except rights to receive cash or other property that have already accrued, shall terminate at the expiration time, which is the date of a discretionary redemption or a deemed redemption described in this paragraph.

Exercise of the Rights.

The rights shall not be exercisable prior to the commencement date. Until the commencement date, each right shall be evidenced by the certificate for the associated common share and will be transferable only together with, and

will be transferred by the transfer of, its associated common share. New common share certificates issued after the effective date of the Rights Agreement will contain a legend incorporating the Rights Agreement by reference. Certificates issued and outstanding at the effective date of the Rights Agreement shall evidence one right for each common share evidenced thereby, notwithstanding the absence of a legend incorporating the Rights Agreement, until the earlier of the commencement date or the expiration time. Each common share issued for new value after the effective date of the Rights Agreement, but prior to the expiration time, shall automatically have one new right associated with it and shall bear the appropriate legend.

From and after the commencement date, the rights may be exercised, and the registration and transfer of the rights shall be separate from and independent of the common shares. Following the commencement date, we shall mail to each holder of common shares as of the commencement date, or such holder's nominee, a rights certificate representing the number of rights held by such holder at the commencement date and a disclosure statement describing the rights.

Rights may be exercised in whole or in part on any business day after the commencement date and prior to the expiration time by submitting to the rights certificate, an election to exercise, and payment of the sum equal to \$.0000001 per share (as adjusted) multiplied by the number of rights being exercised. Upon receipt of such materials, the Rights Agent will promptly deliver certificates representing the appropriate number of common shares to the registered holder of the relevant rights certificate and, if not all rights are exercised, issue a new rights certificate evidencing the remaining unexercised rights.

The foregoing descriptions do not purport to be complete and are qualified by reference to the definitive Rights Agreement.

#### EXPERTS

The 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 the effectiveness of internal control over financial reporting incorporated by reference in this prospectus have been audited by Perry-Smith LLP, an independent registered public accounting firm, as stated in their reports and incorporated herein by reference, and are incorporated in reliance upon such reports and upon the authority of such firm as experts in accounting and auditing.

#### LEGAL MATTERS

The validity of the offered common shares has been passed upon for us by Cassels Brock & Blackwell LLP. Additional legal matters are being passed upon for us by Parr Brown Gee & Loveless, PC, of Salt Lake City, Utah.

## INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

As permitted by SEC rules, this prospectus does not contain all of the information in the registration statement of which this prospectus is a part or the exhibits to the registration statement. The SEC permits us to incorporate by reference into this prospectus information filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, except as superseded or modified by information contained directly in this prospectus or in a subsequently filed document that also is (or is deemed to be) incorporated into this prospectus by reference.

This prospectus incorporates by reference the documents set forth below that we (File No. 001-12497) have previously filed with the SEC pursuant to the Exchange Act. These documents contain important information about the Company and its financial condition.

- (a) Our Annual Report on Form 10-K for the year ended December 31, 2009, filed with the SEC on March 12, 2010.
- (b) Our Quarterly Report on Form 10-Q for the period ended March 31, 2010, filed with the SEC on May 10, 2010.
- (c) Our Current Reports on Form 8-K filed with the SEC on April 9, 2010, May 5, 2010, May 28, 2010, June 9, 2010, June 25, 2010 and June 28, 2010.
- (d) The description of our common shares contained in our Registration Statement on Form 10-SB, SEC File No. 1-12497 filed with the SEC pursuant to the Securities Exchange Act of 1934, including any amendment or report filed under the Securities Exchange Act of 1934 for the purpose of updating such description.

We hereby incorporate by reference all reports and other documents filed by us pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus and prior to the termination of this offering.

Statements contained in this prospectus regarding the contents of any agreement or other document filed as an exhibit to the registration statement or a document incorporated by reference into the prospectus are not necessarily complete, and in each instance we qualify each of these statements in all respects by the reference to the full agreement.

## WHERE YOU CAN FIND MORE INFORMATION

We file reports and other information with the SEC. You may read and copy any document that we file at the SEC's public reference facilities at 100 F Street N.E., Room 1024, Washington, D.C. 20549. Please call the SEC at 1-800-732-0330 for more information about its public reference facilities. Our SEC filings are also available to you free of charge at the SEC's Website at <http://www.sec.gov> or through the "SEC Filings" tab of the "Investors" section on our website at <http://www.altairnano.com>.

Upon written or oral request, we will provide without charge to each person to whom a copy of this prospectus is delivered, including any beneficial owner, a copy of the information that has been or may be incorporated by reference in this prospectus. Direct any request for copies to John Fallini, Chief Financial Officer, at our corporate headquarters, located at 204 Edison Way, Reno, Nevada 89502 (telephone number: (775) 858-3750).

## DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling the registrant, we have been informed that in the opinion of the SEC such indemnification is

against public policy as expressed in the Securities Act of 1933 and is therefore unenforceable.

We have not authorized any dealer, salesperson or other person to give any information or represent anything not contained in this prospectus. This prospectus does not offer to sell or buy any securities in any jurisdiction where it is unlawful. The information in this prospectus is current only as of the date hereof.

19,428,572  
Common shares

---

ALTAIR NANOTECHNOLOGIES INC.

---

Prospectus

---

July 16, 2010



PART II  
INFORMATION NOT REQUIRED IN PROSPECTUS

## Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the various expenses of the offering, sale and distribution of the offered securities being registered pursuant to this registration statement (the “Registration Statement”). All of the expenses listed below will be borne by the Company. All of the amounts shown are estimates except the SEC registration fees.

Item	Amount
SEC Commission registration fees	\$ 541
Accounting fees and expenses	15,000
Legal fees and expenses	15,000
Miscellaneous expenses	\$ 3,000
Total	\$ 33,541

## Item 15. Indemnification of Directors and Officers.

## Our Bylaws

The Registrant’s Bylaws provide that, to the maximum extent permitted by law, the Registrant shall indemnify a director or officer of the Registrant, a former director or officer of the Registrant, or another individual who acts or acted at the Registrant’s request as a director or officer, or an individual acting in a similar capacity, of another entity, against all costs, charges and expenses, including any amount paid to settle an action or satisfy a judgment, reasonably incurred by the individual in respect of any civil, criminal, administrative, investigative or other proceeding in which the individual is involved because of that association with the Registrant or other entity. In addition, the Registrants Bylaws require the Registrant to advance monies to an indemnifiable officer, director or similar person in connection with threatened or pending litigation.

## The Canada Business Corporations Act

Section 124 of the Canada Business Corporations Act provides as follows with respect to the indemnification of directors and officers:

(1) A corporation may indemnify a director or officer of the corporation, a former director or officer of the corporation or another individual who acts or acted at the corporation’s request as a director or officer, or an individual acting in a similar capacity, of another entity, against all costs, charges and expenses, including an amount paid to settle an action or satisfy a judgment, reasonably incurred by the individual in respect of any civil, criminal, administrative, investigative or other proceeding in which the individual is involved because of that association with the corporation or other entity.

(2) A corporation may advance moneys to a director, officer or other individual for the costs, charges and expenses of a proceeding referred to in subsection (1). The individual shall repay the moneys if the individual does not fulfill the conditions of subsection (3).

(3) A corporation may not indemnify an individual under subsection (1) unless the individual

(a) acted honestly and in good faith with a view to the best interests of the corporation, or, as the case may be, to the best interests of the other entity for which the individual acted as director or officer or in a similar capacity at the corporation's request; and

(b) in the case of a criminal or administrative action or proceeding that is enforced by a monetary penalty, the individual had reasonable grounds for believing that the individual's conduct was lawful.

(4) A corporation may with the approval of a court, indemnify an individual referred to in subsection (1), or advance moneys under subsection (2), in respect of an action by or on behalf of the corporation or other entity to procure a judgment in its favor, to which the individual is made a party because of the individual's association with the corporation or other entity as described in subsection (1) against all costs, charges and expenses reasonably incurred by the individual in connection with such action, if the individual fulfills the conditions set out in subsection (3).

(5) Despite subsection (1), an individual referred to in that subsection is entitled to indemnity from the corporation in respect of all costs, charges and expenses reasonably incurred by the individual in connection with the defense of any civil, criminal, administrative, investigative or other proceeding to which the individual is subject because of the individual's association with the corporation or other entity as described in subsection (1), if the individual seeking indemnity

(a) was not judged by the court or other competent authority to have committed any fault or omitted to do anything that the individual ought to have done; and

(b) fulfills the conditions set out in subsection (3).

(6) A corporation may purchase and maintain insurance for the benefit of an individual referred to in subsection (1) against any liability incurred by the individual

(a) in the individual's capacity as a director or officer of the corporation; or

(b) in the individual's capacity as a director or officer, or similar capacity, of another entity, if the individual acts or acted in that capacity at the corporation's request.

(7) A corporation, an individual or an entity referred to in subsection (1) may apply to a court for an order approving an indemnity under this section and the court may so order and make any further order that it sees fit.

(8) An applicant under subsection (7) shall give the Director notice of the application and the Director is entitled to appear and be heard in person or by counsel.

(9) On an application under subsection (7) the court may order notice to be given to any interested person and the person is entitled to appear and be heard in person or by counsel.

#### Other Indemnification Information

Indemnification may be granted pursuant to any other agreement, bylaw, or vote of shareholders or directors. In addition to the foregoing, the Registrant maintains insurance through a commercial carrier against certain liabilities which may be incurred by its directors and officers. The foregoing description is necessarily general and does not describe all details regarding the indemnification of officers, directors or controlling persons of the Registrant.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions or otherwise, the Registrant has been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its

counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The rights of indemnification described above are not exclusive of any other rights of indemnification to which the persons indemnified may be entitled under any bylaw, agreement, vote of shareholders or directors or otherwise.

Item 16. Exhibits.

- 4.1 Articles of Continuance (1)
- 4.2 Bylaw No. 1 (2)
- 4.3 Specimen Stock Certificate of the registrant(3)
- 4.4 Amended and Restated Shareholder Rights Plan dated October 15, 1999, with Equity Transfer Services, Inc.(4)
- 4.5 Amendment No. 1 to Shareholders Rights Plan Agreement dated October 5, 2008, with Equity Transfer Services, Inc.(5)
- 4.3 Purchase Agreement between Altair Nanotechnologies Inc. and Al Yousuf, LLC dated November 29, 2007 (6)
- 4.4 Registration Rights Agreement dated November 29, 2007 with Al Yousuf, LLC (6)
- 4.5 Amendment No. 1 to Registration Rights Agreement with Al Yousuf, LLC dated as of September 30, 2008 (5)
- 4.6 Amendment No. 2 to Registration Rights Agreement with Al Yousuf, LLC dated August 14, 2009 (7)
- 4.7 Stock Purchase and Settlement Agreement with Al Yousuf, LLC dated as of September 30, 2008 (5)
- 5.1 Opinion of Cassels Brock & Blackwell LLP\*
- 23.1 Consent of Perry-Smith LLP\*

---

\* Filed herewith.

- (1) Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on July 18, 2002, File No. 001-12497.
- (2) Incorporated by reference to the Amendment No. 1 to Annual Report on Form 10-K/A filed with the SEC on March 10, 2005, File No. 001-12497.
- (3) Incorporated by reference to the Annual Report on Form 10-K/A filed with the SEC on March 12, 2010, File No. 001-12497.
- (4) Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on November 19, 1999, File No. 001-12497.
- (5) Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on October 6, 2008, File No. 001-12497.
- (6) Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on November 30, 2007, File No. 001-12497.
- (7) Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on September 4, 2009, File No. 001-12497.

Item 17. Undertakings.

1. The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or

decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

Provided, however, That:

(A) Paragraphs (1)(i) and (1)(ii) above do not apply if the registration statement is on Form S-8, and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement; and

(B) Paragraphs (1)(i), (1)(ii) and (1)(iii) above do not apply if the registration statement is on Form S-3 or Form F-3, and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

2. The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

3. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Company, the Company has been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Company of expenses incurred or paid by a director, officer or controlling person of the Company in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Company will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Reno, Nevada on July 16, 2010.

ALTAIR NANOTECHNOLOGIES INC.

By: /s/ Terry M. Copeland  
Terry M. Copeland,  
President and Chief Executive Officer



## ADDITIONAL SIGNATURES AND POWER OF ATTORNEY

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated. Each person whose signature to this Registration Statement appears below hereby constitutes and appoints Terry M. 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 and post-effective amendments to this Registration Statement, and any and all instruments or documents filed as part of or in connection with this Registration Statement 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 M. Copeland Terry M. Copeland	President, Chief Executive Officer and Director (Principal Executive Officer)	July 16, 2010
/s/ John Fallini John Fallini	Chief Financial Officer and Secretary (Principal Financial and Accounting Officer)	July 16, 2010
/s/ Jon N. Bengston Jon N. Bengston	Director	July 16, 2010
/s/ Alex Lee Alex Lee	Director	July 16, 2010
/s/ Hossein Asrar Haghghi Hossein Asrar Haghghi	Director	July 16, 2010
/s/ George Hartman George Hartman	Director	July 16, 2010
/s/ Robert G. van Schoonenberg Robert G. van Schoonenberg	Director	July 16, 2010

Director

July 16, 2010

/s/ Pierre Lortie  
Pierre Lortie

31

---

EXHIBIT INDEX

- 4.1 Articles of Continuance (1)
- 4.2 Bylaw No. 1 (2)
- 4.3 Specimen Stock Certificate of the registrant(3)
- 4.4 Amended and Restated Shareholder Rights Plan dated October 15, 1999, with Equity Transfer Services, Inc.(4)
- 4.5 Amendment No. 1 to Shareholders Rights Plan Agreement dated October 5, 2008, with Equity Transfer Services, Inc.(5)
- 4.3 Purchase Agreement between Altair Nanotechnologies Inc. and Al Yousuf, LLC dated November 29, 2007 (6)
- 4.4 Registration Rights Agreement dated November 29, 2007 with Al Yousuf, LLC (6)
- 4.5 Amendment No. 1 to Registration Rights Agreement with Al Yousuf, LLC dated as of September 30, 2008 (5)
- 4.6 Amendment No. 2 to Registration Rights Agreement with Al Yousuf, LLC dated August 14, 2009 (7)
- 4.7 Stock Purchase and Settlement Agreement with Al Yousuf, LLC dated as of September 30, 2008 (5)
- 5.1 Opinion of Cassels Brock & Blackwell LLP\*
- 23.1 Consent of Perry-Smith LLP\*

---

\* Filed herewith.

- (1) Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on July 18, 2002, File No. 001-12497.
- (2) Incorporated by reference to the Amendment No. 1 to Annual Report on Form 10-K/A filed with the SEC on March 10, 2005, File No. 001-12497.
- (3) Incorporated by reference to the Annual Report on Form 10-K/A filed with the SEC on March 12, 2010, File No. 001-12497.
- (4) Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on November 19, 1999, File No. 001-12497.
- (5) Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on October 6, 2008, File No. 001-12497.
- (6) Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on November 30, 2007, File No. 001-12497.
- (7) Incorporated by reference to the Company's Current Report on Form 8-K filed with the SEC on September 4, 2009, File No. 001-12497.