

NANOPHASE TECHNOLOGIES CORPORATION

Form 10-Q

May 12, 2011

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**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**Form 10-Q**

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

For the Quarterly Period Ended: March 31, 2011

or

.. **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number: 000-22333

**Nanophase Technologies Corporation**

(Exact name of registrant as specified in its charter)

**Delaware** **36-3687863**  
(State or other jurisdiction of **(I.R.S. Employer**  
**incorporation or organization)** **Identification No.)**  
**1319 Marquette Drive, Romeoville, Illinois 60446**  
(Address of principal executive offices, and zip code)

**Registrant's telephone number, including area code: (630) 771-6708**

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definition of "accelerated filer", "large accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller Reporting Company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No

As of May 9, 2011, there were 21,204,162 shares outstanding of Common Stock, par value \$.01, of the registrant.

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**NANOPHASE TECHNOLOGIES CORPORATION**

**QUARTER ENDED MARCH 31, 2011**

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**Table of Contents****PART I FINANCIAL INFORMATION****Item 1. Financial Statements****NANOPHASE TECHNOLOGIES CORPORATION****BALANCE SHEETS**

|   | <b>March 31,<br/>2011<br/>(Unaudited)</b> | <b>December 31,<br/>2010</b> |
|---|---|------------------------------|
| <b>ASSETS</b>   |   |                              |
| <b>Current assets:</b>  |   |                              |
| Cash and cash equivalents   | \$ 4,024,479                              | \$ 5,744,322                 |
| Investments   | 30,000                                    | 30,000                       |
| Trade accounts receivable, less allowance for doubtful accounts of \$6,000 and \$3,000 on March 31, 2011 and December 31, 2010, respectively                | 1,708,218                                 | 765,250                      |
| Other receivables   | 14,260                                    | 14,260                       |
| Inventories, net  | 1,742,690                                 | 1,825,882                    |
| Prepaid expenses and other current assets   | 607,570                                   | 346,926                      |
| <b>Total current assets</b>   | <b>8,127,217</b>                          | <b>8,726,640</b>             |
| Equipment and leasehold improvements, net   | 4,514,528                                 | 4,721,672                    |
| Other assets, net   | 34,185                                    | 34,799                       |
|   | <b>\$ 12,675,930</b>                      | <b>\$ 13,483,111</b>         |
| <b>LIABILITIES AND STOCKHOLDERS EQUITY</b>  |   |                              |
| <b>Current liabilities:</b>   |   |                              |
| Current portion of capital lease obligations  | \$  | \$ 748                       |
| Accounts payable  | 697,878                                   | 918,527                      |
| Accrued expenses  | 959,856                                   | 1,047,509                    |
| Accrued discount liability  | 256,718                                   | 296,235                      |
| <b>Total current liabilities</b>  | <b>1,914,452</b>                          | <b>2,263,019</b>             |
| Long-term deferred rent   | 638,494                                   | 635,523                      |
| Asset retirement obligations  | 143,139                                   | 141,407                      |
| <b>Total long-term liabilities</b>  | <b>781,633</b>                            | <b>776,930</b>               |
| <b>Contingent liabilities:</b>  |   |                              |
| <b>Stockholders equity:</b>   |   |                              |
| Preferred stock, \$.01 par value, 24,088 shares authorized and no shares issued and outstanding   |   |                              |
| Common stock, \$.01 par value, 35,000,000 shares authorized; 21,204,162 shares issued and outstanding on March 31, 2011 and December 31, 2010, respectively | 212,042                                   | 212,042                      |
| Additional paid-in capital  | 92,765,211                                | 92,674,786                   |
| Accumulated deficit   | (82,997,408)                              | (82,443,666)                 |
| <b>Total stockholders equity</b>  | <b>9,979,845</b>                          | <b>10,443,162</b>            |

*See Notes to Financial Statements.*

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## NANOPHASE TECHNOLOGIES CORPORATION

## STATEMENTS OF OPERATIONS

(Unaudited)

|  | Three months ended<br>March 31, |                |
|--|---------------------------------|----------------|
|  | 2011                            | 2010           |
| <b>Revenue:</b>  |                                 |                |
| Product revenue  | \$ 2,706,433                    | \$ 1,930,602   |
| Other revenue  | 79,253                          | 79,580         |
| Total revenue  | 2,785,686                       | 2,010,182      |
| <b>Operating expense:</b>  |                                 |                |
| Cost of revenue  | 1,861,659                       | 1,527,097      |
| Gross Profit   | 924,027                         | 483,085        |
| Research and development expense                                       | 401,025                         | 429,263        |
| Selling, general and administrative expense                            | 1,077,696                       | 1,212,417      |
| Loss from operations   | (554,694)                       | (1,158,595)    |
| Interest income  | 1,893                           | 14,135         |
| Interest expense   | (899)                           | (689)          |
| Other, net   | (42)                            |                |
| Loss before provision for income taxes                                 | (553,742)                       | (1,145,149)    |
| Provision for income taxes   |                                 |                |
| Net loss   | \$ (553,742)                    | \$ (1,145,149) |
| Net loss per share basic and diluted                                   | \$ (0.03)                       | \$ (0.05)      |
| Weighted average number of basic and diluted common shares outstanding | 21,204,162                      | 21,204,162     |

*See Notes to Financial Statements.*

**Table of Contents****NANOPHASE TECHNOLOGIES CORPORATION****STATEMENTS OF CASH FLOWS****(Unaudited)**

|   | <b>Three months ended<br/>March 31, 2011</b> | <b>Three months ended<br/>March 31, 2010</b> |
|---|--|--|
| <b>Operating activities:</b>  |  |  |
| Net loss  | \$ (553,742)                                 | \$ (1,145,149)                               |
| Adjustments to reconcile net loss to net cash used in operating activities:                   |  |  |
| Depreciation and amortization   | 281,924                                      | 305,462                                      |
| Stock compensation expense  | 109,108                                      | 155,585                                      |
| Allowance for excess inventory quantities   |  | 2,728  |
| Changes in assets and liabilities related to operations:                                      |  |  |
| Trade accounts receivable   | (942,968)                                    | (466,595)                                    |
| Other accounts receivable   |  | 11,807                                       |
| Inventories   | 83,192                                       | (192,912)                                    |
| Prepaid expenses and other assets   | (260,644)                                    | (66,090)                                     |
| Accounts payable  | (174,705)                                    | 578,249                                      |
| Accrued liabilities   | (142,882)                                    | 47,160                                       |
| Net cash used in operating activities   | (1,600,717)                                  | (769,755)                                    |
| <b>Investing activities:</b>  |  |  |
| Acquisition of equipment and leasehold improvements   | (65,934)                                     | (8,321)                                      |
| Payment of accounts payable incurred for the purchase of equipment and leasehold improvements | (52,444)                                     | (10,873)                                     |
| Purchases of investments  |  | (3,999,502)                                  |
| Sales of investments  |  | 4,000,000                                    |
| Net cash used in investing activities   | (118,378)                                    | (18,696)                                     |
| <b>Financing activities:</b>  |  |  |
| Principal payment on debt obligations, including capital leases                               | (748)  | (2,044)                                      |
| Net cash used in financing activities   | (748)  | (2,044)                                      |
| Decrease in cash and cash equivalents   | (1,719,843)                                  | (790,495)                                    |
| Cash and cash equivalents at beginning of period  | 5,744,322                                    | 3,899,393                                    |
| Cash and cash equivalents at end of period  | \$ 4,024,479                                 | \$ 3,108,898                                 |
| <b>Supplemental cash flow information:</b>  |  |  |
| Interest paid   | \$ 899                                       | \$ 689                                       |
| <b>Supplemental non-cash investing and financing activities:</b>                              |  |  |
| Accounts payable incurred for the purchase of equipment and leasehold improvements            | \$ 6,500                                     | \$ 9,743                                     |

*See Notes to Financial Statements.*





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**NANOPHASE TECHNOLOGIES CORPORATION**

**NOTES TO FINANCIAL STATEMENTS**

**(Unaudited)**

**(1) Basis of Presentation**

The accompanying unaudited interim financial statements of Nanophase Technologies Corporation ( "Nanophase" or the "Company" , including "we" or "us" ) reflect all adjustments (consisting of normal recurring adjustments) which, in the opinion of management, are necessary for a fair presentation of the financial position and operating results of the Company for the interim periods presented. Operating results for the three months ended March 31, 2011 are not necessarily indicative of the results that may be expected for the year ending December 31, 2011.

These financial statements should be read in conjunction with the Company's audited financial statements and notes thereto for the year ended December 31, 2010, included in the Company's Annual Report on Form 10-K for the year ended December 31, 2010, as filed with the Securities and Exchange Commission.

**(2) Description of Business**

Nanophase is a nanomaterials developer and commercial manufacturer with an integrated family of nanomaterial technologies. Nanophase produces engineered nanomaterial products for use in a variety of diverse existing and developing markets: sunscreens, personal care, architectural coatings, architectural window cleaning and restoration, industrial coating ingredients, abrasion-resistant applications, plastics additives, medical diagnostics and a variety of polishing applications, including semiconductors and optics. New markets and applications are also being developed. We target markets in which we believe practical solutions may be found using nanoengineered products. We work with leaders in these targeted markets to identify and supply their material and performance requirements. Finally, we have applied our technology and developed a complete window cleaning and polishing product family for the Architectural Windows Market under the trade name NanoUltra . The Company was incorporated in Illinois on November 25, 1989, and became a Delaware corporation on November 30, 1997. The Company's common stock trades on the NASDAQ Global Market under the symbol NANX.

While product sales comprise the majority of our revenue, we also recognize revenue in connection with a technology license and other sources from time to time. These activities are not expected to drive the long-term growth of the business. For this reason we classify such revenue as "other revenue" in our Statement of Operations, as it does not represent revenue directly from our nanocrystalline materials.

**(3) Financial Instruments**

The fair value framework requires the categorization of assets and liabilities into three levels based upon the assumptions (inputs) used to price the assets or liabilities. Level 1 provides the most reliable measure of fair value, whereas Level 3 generally requires significant management judgment. The three levels are defined as follows:

*Level 1:* Unadjusted quoted prices in active markets for identical assets and liabilities.

*Level 2:* Observable inputs other than those included in Level 1. For example, quoted prices for similar assets or liabilities in active markets or quoted prices for identical assets or liabilities in inactive markets.

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*Level 3:* Unobservable inputs reflecting management's own assumptions about the inputs used in pricing the asset or liability. The Company's financial instruments include cash, accounts receivable, accounts payable and accrued expenses. The fair values of all financial instruments were not materially different from their carrying values.

There are no financial assets or liabilities adjusted to fair value on March 31, 2011 and December 31, 2010.

**(4) Investments**

Investments on March 31, 2011 and December 31, 2010 were comprised of certificates of deposit in the amount of \$30,000, pledged as collateral, primarily for the Company's rent in 2011 and 2010, and is restricted as to withdrawal or usage. The Company's investments on March 31, 2011 and December 31, 2010 were as follows:

|                         | <b>March 31,<br/>2011</b> | <b>December 31,<br/>2010</b> |
|-------------------------|---------------------------|------------------------------|
| Certificates of deposit | 30,000                    | 30,000                       |
|                         | \$ 30,000                 | \$ 30,000                    |

**(5) Inventories**

Inventories consist of the following:

|   | <b>March 31,<br/>2011</b> | <b>December 31,<br/>2010</b> |
|---|---------------------------|------------------------------|
| Raw materials                             | \$ 646,578                | \$ 878,671                   |
| Finished goods                            | 1,156,278                 | 1,007,377                    |
|   | 1,802,856                 | 1,886,048                    |
| Allowance for excess inventory quantities | (60,166)                  | (60,166)                     |
|   | \$ 1,742,690              | \$ 1,825,882                 |

**(6) Line of Credit**

On September 13, 2010, we secured a line of credit with a bank in the amount of \$1 million, secured by certain Company assets. The balance of our line of credit for the periods ending March 31, 2011 and December 31, 2010 was \$0. We do not currently anticipate utilizing this credit line in the foreseeable future. This credit line has no defined termination date and we do not pay a penalty for unused balances.

**(7) Share-Based Compensation**

The Company follows FASB ASC Topic 718, Share-Based Payments, in which compensation expense is recognized only for share-based payments expected to vest. The Company recognized compensation expense related to stock options of \$90,425 and \$86,509 for the three month periods ended March 31, 2011 and 2010, respectively.

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As of March 31, 2011, there was approximately \$491,000 of total unrecognized compensation cost related to nonvested share-based compensation arrangements granted under the Company's stock option plans. That cost is expected to be recognized over a remaining weighted-average period of 1.9 years.

**Stock Options and Stock Grants**

During the three months ended March 31, 2011 and 2010, no shares of common stock were issued pursuant to option exercises. For the three months ended March 31, 2011, stock options exercisable into 89,000 shares of common stock were granted compared to 10,000 for the same period in 2010. For the three months ended March 31, 2011, stock options exercisable into 62,400 shares of common stock were forfeited compared to 11,000 shares for the same period in 2010.

**Stock Appreciation Rights**

During 2010 and 2009, the Company granted its outside directors stock appreciation rights (SARs) totaling 106,750 shares, under the Company's Amended and Restated 2006 Stock Appreciation Rights Plan. The increase in valuation of the awards previously granted was \$18,683 and \$47,181 and is included in stock-based compensation expense for the three months ended March 31, 2011 and 2010, respectively. The fair value of awards granted during the three months ended March 31, 2010 was \$21,895 and is included in stock-based compensation expense for that period. The SARs granted vested immediately and are payable upon the directors' removal or resignation from the position of director. These awards are accounted for as liability awards, included in accrued expenses as of March 31, 2011 and 2010, and adjusted to fair value each reporting period. The fair value of the liability on March 31, 2011 is \$99,840, compared to \$81,157 on December 31, 2010.

As of March 31, 2011, the Company does not have any unvested restricted stock or performance shares outstanding.

The following table illustrates the various assumptions used to calculate the Black-Scholes option pricing model for the periods presented:

|   | March 31,<br>2011 | March 31,<br>2010 |
|---|-------------------|-------------------|
| Weighted-average risk-free interest rates:          | 2.54%             | 2.36%             |
| Dividend yield:                                     |                   |                   |
| Weighted-average expected life of the option:       | 7 Years           | 7 Years           |
| Weighted-average expected stock price volatility:   | 75.23%            | 77.66%            |
| Weighted-average fair value of the options granted: | \$ .95            | \$ .58            |

**(8) Significant Customers and Contingencies**

Sales to three customers constituted approximately 57%, 26% and 6%, respectively, of the Company's total revenue for the three months ended March 31, 2011. Amounts included in accounts receivable on March 31, 2011 relating to these three customers were approximately \$777,000, \$353,000 and \$84,000, respectively. Revenue from these three customers constituted approximately 68%, 10% and 4%, respectively, of the Company's total revenue for the three months ended March 31, 2010. Amounts included in accounts receivable on March 31, 2010 relating to these three customers were approximately \$645,000, \$196,000 and \$67,000, respectively.

We currently have supply agreements with BASF Corporation (BASF), our largest customer, that have contingencies outlined which could potentially result in the license of technology and/or the sale of production equipment, providing capacity sufficient to meet the customer's production needs, from the Company to the customer, if triggered by our failure to meet certain performance requirements, certain

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other obligations and/or certain financial condition covenants. The financial condition covenants in one of our supply agreements with BASF trigger a technology transfer right (license and, optionally, an equipment sale) in the event (a) that earnings of our twelve month period ending with its most recently published quarterly financial statements are less than zero and our cash, cash equivalents and certain investments are less than \$2,000,000, or (b) of an acceleration of any debt maturity having a principal amount of more than \$10,000,000. Our supply agreements with BASF also trigger a technology transfer right in the event of our insolvency, as further defined within the agreements. In the event of an equipment sale, upon incurring a triggering event, the equipment would be sold to the customer at the greater of 30% of the original book value of such equipment, and any associated upgrades to it, or 115% of the equipment's net book value.

We believe that we have sufficient cash, investment balances and line of credit access (See Liquidity and Capital Resources in Management's Discussion and Analysis for a further discussion) to avoid the first triggering event under one of the supply agreements with BASF for the foreseeable future. If a triggering event were to occur and BASF elected to proceed with the license and related equipment sale mentioned above, the Company would receive royalty payments from this customer for products sold using the Company's technology; however, we would lose both significant revenue and the ability to generate significant revenue to replace that which was lost in the near term. Replacement of necessary equipment that could be purchased and removed by the customer pursuant to this triggering event could take in excess of twelve months. Any additional capital outlays required to rebuild capacity would probably be greater than the proceeds from the purchase of the assets as dictated by our agreement with the customer. Similar consequences would occur if we were determined to have materially breached certain other provisions of the supply agreement with BASF. Any such event would also likely result in the loss of many of our key staff and line employees due to economic realities. We believe that our employees are a critical component of our success and could be difficult to replace them quickly. Given the occurrence of any such event, we might not be able to hire and retain skilled employees given the stigma relating to such an event and its impact on us.

### **(9) Business Segmentation and Geographical Distribution**

Revenue from international sources approximated \$77,000 and \$229,000 for the three months ended March 31, 2011 and 2010, respectively. As part of its revenue from international sources, the Company recognized approximately \$1,300 in product revenue from international companies and \$75,000 in other revenue from a technology license fee from its Japanese licensee for the three months ended March 31, 2011. Revenue from these same international sources approximated \$152,000 and \$75,000 for the same period in 2010.

The Company's operations comprise a single business segment and all of the Company's long-lived assets are located within the United States.

### **(10) Recently Adopted Accounting Pronouncements**

In January 2010, the FASB issued Accounting Standards Update (ASU) 2010-06 *Fair Value Measurements and Disclosures (Topic 820): Improving Disclosures about Fair Value Measurements* (ASU 2010-06). ASU 2010-06 amends ASC 820 *Fair Value Measurements and Disclosures* to require new disclosures related to transfers into and out of Levels 1 and 2 of the fair value hierarchy and additional disclosure requirements related to Level 3 measurements. The guidance also clarifies existing fair value measurement disclosures about the level of disaggregation and about inputs and valuation techniques used to measure fair value. The additional disclosure requirements are effective for the first reporting period beginning after December 15, 2009, except for the additional disclosure requirements related to Level 3 measurements which are effective for fiscal years beginning after December 15, 2010.

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The adoption of ASU No. 2010-06 did not have a material impact on our financial position or results of operations.

### **Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations Overview**

Nanophase is a nanomaterials and applications developer and commercial manufacturer with an integrated family of nanomaterial technologies. Nanophase produces engineered nanomaterials for use in a variety of diverse markets: sunscreens, architectural coatings, industrial coating ingredients, architectural window cleaning and restoration, personal care, abrasion-resistant applications, plastics additives, medical diagnostics and a variety of polishing applications, including semiconductors and optics. We target markets in which we feel practical solutions may be found using nanoengineered products. We work closely with current and potential customers in these target markets to identify their material and performance requirements and market our materials to various end-use applications manufacturers. Recently developed technologies have made certain new products possible and opened potential new markets. We expect growth in end-user (manufacturing customers, including customers of Nanophase's customers) adoption in 2011 and beyond and revenue growth relative to these new markets to follow thereafter. We further expect that we will attract additional customers to help us achieve growth in certain markets in 2011 and beyond.

#### **Results of Operations**

Total revenue increased to \$2,785,686 for the three months ended March 31, 2011, compared to \$2,010,182 for the same period in 2010. A substantial majority of our revenue for the three months ended March 31, 2011 is from our two largest customers. See Note 8 to the Financial Statements for additional information regarding the revenue derived from these two customers in the first quarter of 2011. Product revenue increased to \$2,706,433 for the three months ended March 31, 2011, compared to \$1,930,602 for the same period in 2010. The increase in product revenue was primarily attributed to an increase in revenue associated with polishing applications, as further discussed below and from our largest customer.

Other revenue was effectively unchanged, as it decreased to \$79,253 for the three months ended March 31, 2011, compared to \$79,580 for the same period in 2010.

The largest portion of the total revenue generated during the three months ended March 31, 2011 resulted from sales to our largest customer in personal care and sunscreen applications.

We use certain elements classified as Rare Earth elements in some of our processes, specifically cerium oxide in polishing applications. On a worldwide basis, the vast majority of these elements are currently supplied from China. Due to export limitations imposed by China during the summer of 2010, the supply of all Rare Earth elements has been drastically reduced during the second half of 2010 and into 2011, as compared to prior periods. This has created significant issues with availability of acceptable materials and, if available, a substantial increase in cost. We have historically been successful in passing material costs through to our customers. While we continue to do so, the supply issue and severity of the price increase will create uncertainty for our polishing business during 2011 and beyond. We have inventory in-house and purchase orders for 2011 fulfillment related to this line of business, but the long-term success of this area will be directly impacted by the supply and cost of Rare Earth elements, specifically cerium oxide.

Cost of revenue generally includes costs associated with commercial production. Cost of revenue increased to \$1,861,659 for the three months ended March 31, 2011, compared to \$1,527,097 for the same period in 2010. The increase in cost of revenue was generally attributed to increased revenue volume, net of efficiencies related to this increase in product flow. We expect to continue new nanomaterial

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development, primarily using our NanoArc<sup>®</sup> synthesis and dispersion technologies, for targeted applications and new markets through 2011 and beyond. At current revenue levels we have generated a positive, and improving, gross margin. Our margins have been impeded by not having enough revenue to absorb the manufacturing overhead that is required to work with current customers and expected future customers. We believe that our current fixed manufacturing cost structure is sufficient to support significantly higher levels of production. The extent to which our margins grow, as a percentage of total revenue, will be dependent upon revenue mix, revenue volume, our ability to continue to cut costs and pass commodity market-driven raw materials increases onto customers. As product revenue volume increases, this should result in more of our fixed manufacturing costs being absorbed, leading to increased margins. We expect to continue to focus on reducing controllable variable product manufacturing costs through 2011 and beyond, with potential offsetting increases in the commodity metals markets, but may or may not continue to realize absolute dollar gross margin growth through 2011 and beyond, dependent upon the factors discussed above.

Research and development expense, which includes all expenses relating to the technology and advanced engineering groups, primarily consists of costs associated with our development or acquisition of new product applications and coating formulations and the cost of enhancing our manufacturing processes. As an example, we have been, and continue to be, engaged in research to enhance our ability to disperse material in a variety of organic and inorganic media for use as coatings and polishing materials, including window cleaning and polishing products. Much of this work has led to several new products and additional potential new products.

Having demonstrated the capability to produce pilot quantities of mixed-metal oxides in a single crystal phase, we do not expect development of further variations on these materials to present material technological challenges. Many of these materials exhibit performance characteristics that can enable them to serve in various catalytic applications. We are now working on several related commercial opportunities using the same materials. We expect that this technique should enable us to scale to large quantity commercial volumes once application viability and firm demand are established. We also have an ongoing advanced engineering effort that is primarily focused on the development of new nanomaterials as well as the refinement of existing nanomaterials, as dictated by our customer-driven marketing strategy. We are not certain when or if any significant revenue will be generated from the production of the materials described above.

Research and development expense decreased to \$401,025 for the three months ended March 31, 2011, compared to \$429,263 for the same period in 2010. The decrease in research and development expense was largely attributed to legal expenses associated with patent applications, and to a reduction in depreciation expense. We do not expect research and development expense to increase significantly in 2011.

Selling, general and administrative expense decreased to \$1,077,696 for the three month period ended March 31, 2011, compared to \$1,212,417 for the same period in 2010. The net decrease was primarily attributed to legal fees, and to stock compensation expense non-cash charges related to outstanding equity compensation vehicles due to the decrease in our share price during March 2011.

Interest income decreased to \$1,893 for the three month period ended March 31, 2011, compared to \$14,135 for the same period in 2010. The decrease was primarily due to decreased investment yields and decreases in funds available for investment.

## **Inflation**

We believe inflation has not had a material effect on our operations or financial position. However, supplier price increases and wage and benefit inflation, both of which represent a significant

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component of our costs of operations, may have a material effect on our operations and financial position in 2011 and beyond if we are unable to pass through those increases under our present contracts or through to our markets in general.

### **Liquidity and Capital Resources**

Our cash, cash equivalents and short-term investments amounted to \$4,054,479 on March 31, 2011, compared to \$5,774,322 on December 31, 2010 and \$6,703,004 on March 31, 2010. The net cash used in our operating activities was \$1,600,717 for the three months ended March 31, 2011, compared to \$769,755 for the same period in 2010. Net cash used in investing activities amounted to \$118,378 for the three months ended March 31, 2011, compared to \$18,696 for the same period in 2010. Capital expenditures amounted to \$65,934 and \$8,321 for the three months ended March 31, 2011 and 2010, respectively. Net cash used in financing activities was \$748 for the three months ended March 31, 2011, compared to \$2,044 for the same period in 2010.

On September 13, 2010, we obtained a line of credit with a bank in the amount of \$1 million which is secured by certain Company assets. The balance of our line of credit for the periods ending March 31, 2011 and December 31, 2010 was \$0. We do not currently anticipate utilizing this credit line in the foreseeable future. This credit line has no defined termination date and we do not pay a penalty for unused balances.

Our supply agreements with our largest customer, BASF, contain certain financial covenants which could potentially impact our liquidity. The most restrictive financial covenants under these agreements require that we maintain a minimum of \$2 million in cash, cash equivalents and certain investments, and that we not have the acceleration of any debt maturity having a principal amount of more than \$10 million, in order to avoid triggering a potential customer right to transfer certain technology and equipment to that customer at a contractually defined price. We had approximately \$4 million in cash, cash equivalents and short-term investments on March 31, 2011, with no debt. This supply agreement and its covenants are more fully described in Note 8 to the Company's Financial Statements.

We believe that cash from operations and cash and cash equivalents, as well as the unutilized credit line, will be adequate to fund our operating plans for the foreseeable future. Our actual future capital requirements in 2011 and beyond will depend, however, on many factors, including customer acceptance of our current and potential nanomaterials and product applications, continued progress in research and development activities and product testing programs, the magnitude of these activities and programs, and the costs necessary to increase and expand our manufacturing capabilities and to market and sell our materials and product applications. Other important issues that will drive future capital requirements will be the development of new markets and new customers as well as the potential for significant unplanned growth with existing customers. We expect that capital spending relating to currently known capital needs for the remainder of 2011 will be approximately \$500,000.

Should events arise that make it appropriate for us to seek additional financing, such additional financing may not be available on acceptable terms or at all, and any such additional financing could be dilutive to our stockholders. Such a financing could be necessitated by such things as the loss of existing customers; currently unknown capital requirements in light of the factors described above; new regulatory requirements that are outside our control; the need to meet previously discussed cash requirements to avoid a triggering event under our BASF supply agreement; or various other circumstances coming to pass that we currently do not anticipate.

On March 31, 2011, we had a net operating loss carryforward of approximately \$83 million for income tax purposes. Because we may have experienced ownership changes within the meaning of the U.S. Internal Revenue Code in connection with our various prior equity offerings, future utilization of this carryforward may be subject to certain limitations as defined by the Internal Revenue Code. A layer of

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our carryforward expired in 2010 and another will expire in 2011. If not utilized, the remaining carryforward will expire at various dates between January 1, 2012 and December 31, 2031. As a result of the annual limitation and uncertainty as to the amount of future taxable income that will be earned prior to the expiration of the carryforward, we have concluded that it is likely that some portion of this carryforward will expire before ultimately becoming available to reduce income tax liabilities. During 2011, the state of Illinois suspended the utilization of NOL carryforwards for four years, extending their duration by an equivalent number of years.

### **Off-Balance Sheet Arrangements**

We have not created, and are not party to, any special-purpose or off-balance sheet entities for the purposes of raising capital, incurring debt or operating our business. We do not have any off-balance sheet arrangements or relationships with entities that are not consolidated into our financial statements that are reasonably likely to materially affect our liquidity or the availability of capital resources.

### **Credit Environment**

The credit markets continue to be volatile and have experienced a shortage in overall liquidity due to the sub-prime lending industry. The Company neither engages in any business activities in the mortgage industry, nor does it hold mortgage-backed securities in its investment portfolio. The Company believes it has sufficient liquidity from its cash and investment accounts to satisfy 2011 operational needs. See Notes 3 and 4 to the financial statements and Liquidity and Capital Resources in Management's Discussion and Analysis for a further discussion of liquidity issues.

### **Safe Harbor Provision**

We want to provide investors with more meaningful and useful information. As a result, this Quarterly Report on Form 10-Q (the "Form 10-Q") contains and incorporates by reference certain forward-looking statements, as defined in Section 21E of the Securities Exchange Act of 1934, as amended. These statements reflect our current expectations of the future results of our operations, performance and achievements. Forward-looking statements are covered under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. We have tried, wherever possible, to identify these statements by using words such as anticipates, believes, estimates, expects, plans, intends and similar expressions. These statements reflect management's current beliefs and are based on information now available to it. Accordingly, these statements are subject to certain risks, uncertainties and contingencies that could cause our actual results, performance or achievements in 2011 and beyond to differ materially from those expressed in, or implied by, such statements. These risks, uncertainties and factors include, without limitation: a decision by a customer to cancel a purchase order or supply agreement in light of our dependence on a limited number of key customers; uncertain demand for, and acceptance of, our nanocrystalline materials; our limited manufacturing capacity and product mix flexibility in light of customer demand; our limited marketing experience; changes in development and distribution relationships; the impact of competitive products and technologies; our dependence on patents and protection of proprietary information; and the resolution of litigation in which we may become involved. Readers of this Quarterly Report on Form 10-Q should not place undue reliance on any forward-looking statements. Except as required by federal securities laws, the Company undertakes no obligation to update or revise these forward-looking statements to reflect new events or uncertainties.

### **Item 3. Quantitative and Qualitative Disclosures About Market Risk**

Not required for a smaller reporting company.



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### **Item 4. Controls and Procedures**

#### **Disclosure controls**

An evaluation of the effectiveness of the design and operation of the Company's disclosure controls and procedures (as defined in Rules 13a-15e and 15d-15e under the Securities Exchange Act of 1934, as amended (the Exchange Act)) as of March 31, 2011 was conducted under the supervision and with the participation of the Company's management, including the Chief Executive Officer (CEO) and Chief Financial Officer (CFO). Based on that evaluation, the CEO and CFO concluded that the Company's disclosure controls and procedures were effective as of such date to ensure that information required to be disclosed in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms, and that the Company's disclosure controls and procedures are effective to ensure that material information required to be disclosed by the Company in reports that it files or submits under the Exchange Act is accumulated and communicated to the management, including the CEO and CFO, as appropriate to allow timely decisions regarding required disclosures.

#### **Internal control over financial reporting**

The Company's management, including the CEO and CFO, confirm that there were no changes in the Company's internal control over financial reporting during the period covered by this report that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

## **PART II OTHER INFORMATION**

### **Item 1. Legal Proceedings**

None.

### **Item 1A. Risk Factors**

Not required for a smaller reporting company.

### **Item 2. Unregistered Sales of Equity Securities and Use of Proceeds**

None.

### **Item 3. Defaults Upon Senior Securities**

None.

### **Item 5. Other Information**

None.

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**Item 6. Exhibits**

- Exhibit 31.1 Certification of Chief Executive Officer pursuant to Rules 13a-14(a) under the Exchange Act.
- Exhibit 31.2 Certification of Chief Financial Officer pursuant to Rules 13a-14(a) and 15d-14(a) under the Exchange Act.
- Exhibit 32 Certification of the Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350.

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**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

NANOPHASE TECHNOLOGIES CORPORATION

Date: May 12, 2011

By: /s/ JESS JANKOWSKI  
Jess Jankowski

President and Chief Executive Officer

Date: May 12, 2011

By: /s/ FRANK CESARIO  
Frank Cesario

Chief Financial Officer