

NANOPHASE TECHNOLOGIES CORPORATION

Form 10-Q

May 14, 2013

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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, 2013

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**  
(State or other jurisdiction of  
incorporation or organization)  
**36-3687863**  
(I.R.S. Employer  
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, 2013, there were 28,468,162 shares outstanding of Common Stock, par value \$.01, of the registrant.

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**NANOPHASE TECHNOLOGIES CORPORATION**

**QUARTER ENDED MARCH 31, 2013**

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

	<b>March 31, 2013 (Unaudited)</b>	<b>December 31, 2012</b>
<b>ASSETS</b>		
<b>Current assets:</b>		
Cash and cash equivalents	\$ 3,608,182	\$ 4,124,234
Investments	30,000	30,000
Trade accounts receivable, less allowance for doubtful accounts of \$6,000 on March 31, 2013 and December 31, 2012	1,233,517	1,031,405
Other receivables	2,002	27,167
Inventories, net	1,021,331	1,138,482
Prepaid expenses and other current assets	359,608	240,870
<b>Total current assets</b>	<b>6,254,640</b>	<b>6,592,158</b>
Equipment and leasehold improvements, net	2,852,563	3,027,671
Other assets, net	29,214	29,829
	<b>\$ 9,136,417</b>	<b>\$ 9,649,658</b>
<b>LIABILITIES AND STOCKHOLDERS EQUITY</b>		
<b>Current liabilities:</b>		
Current portion of capital lease obligations	\$ 29,148	\$ 34,526
Accounts payable	721,358	680,452
Accrued expenses	376,341	484,460
<b>Total current liabilities</b>	<b>1,126,847</b>	<b>1,199,438</b>
Long-term portion of capital lease obligations	33,652	62,755
Long-term deferred rent	635,634	636,628
Asset retirement obligations	155,416	153,967
<b>Total long-term liabilities</b>	<b>824,702</b>	<b>853,350</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; 28,468,162 and 28,458,162 shares issued and outstanding on March 31, 2013 and December 31, 2012, respectively	284,682	284,582
Additional paid-in capital	95,584,143	95,512,065
Accumulated deficit	(88,683,957)	(88,199,777)
<b>Total stockholders equity</b>	<b>7,184,868</b>	<b>7,596,870</b>
	<b>\$ 9,136,417</b>	<b>\$ 9,649,658</b>

*See Notes to Financial Statements.*

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## NANOPHASE TECHNOLOGIES CORPORATION

## STATEMENTS OF OPERATIONS

(Unaudited)

	Three months ended March 31,	
	2013	2012
<b>Revenue:</b>		
Product revenue	\$ 2,975,721	\$ 2,330,293
Other revenue	3,632	79,045
Total revenue	2,979,353	2,409,338
<b>Operating expense:</b>		
Cost of revenue	2,073,098	1,845,651
Gross profit	906,255	563,687
Research and development expenses	428,730	399,614
Selling, general and administrative expenses	960,668	944,315
Loss from operations	(483,143)	(780,242)
Interest income	317	
Interest expense	(7,354)	(1,105)
Other, net	6,000	7,225
Loss before provision for income taxes	(484,180)	(774,122)
Provision for income taxes		
Net loss	\$ (484,180)	\$ (774,122)
Net loss per share-basic and diluted	\$ (0.02)	\$ (0.04)
Weighted average number of basic and diluted common shares outstanding	28,466,717	21,208,162

*See Notes to Financial Statements.*

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

	<b>Three months ended March 31, 2013</b>	<b>Three months ended March 31, 2012</b>
<b>Operating activities:</b>		
Net loss	\$ (484,180)	\$ (774,122)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	226,225	253,712
Gain on disposal of equipment	(6,000)	
Stock compensation expense	77,002	82,407
Changes in assets and liabilities related to operations:		
Trade accounts receivable	(202,112)	(299,029)
Other accounts receivable	25,165	(317,298)
Inventories	117,151	67,205
Prepaid expenses and other assets	(118,738)	47,397
Accounts payable	53,967	378,708
Accrued expenses	(116,937)	(76,063)
Deferred other revenue		279,000
<b>Net cash used in operating activities</b>	<b>(428,457)</b>	<b>(358,083)</b>
<b>Investing activities:</b>		
Proceeds from disposal of equipment	6,000	
Acquisition of equipment and leasehold improvements	(41,710)	(4,434)
Payment of accounts payable incurred for the purchase of equipment and leasehold improvements	(20,404)	(14,941)
<b>Net cash used in investing activities</b>	<b>(56,114)</b>	<b>(19,375)</b>
<b>Financing activities:</b>		
Principal payments on capital leases	(34,481)	(859)
Proceeds from exercise of stock options	3,000	
<b>Net cash used in financing activities</b>	<b>(31,481)</b>	<b>(859)</b>
Decrease in cash and cash equivalents	(516,052)	(378,317)
Cash and cash equivalents at beginning of period	4,124,234	2,693,623
<b>Cash and cash equivalents at end of period</b>	<b>\$ 3,608,182</b>	<b>\$ 2,315,306</b>
<b>Supplemental cash flow information:</b>		
Interest paid	\$ 7,354	\$ 1,105
<b>Supplemental non-cash investing and financing activities:</b>		
Accounts payable incurred for the purchase of equipment and leasehold improvements	\$ 7,343	\$
Capital lease obligations incurred for the purchase of equipment	\$	\$ 32,360

*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 , our 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, 2013 are not necessarily indicative of the results that may be expected for the year ending December 31, 2013.

These financial statements should be read in conjunction with the Company s audited financial statements and notes thereto for the year ended December 31, 2012, included in the Company s Annual Report on Form 10-K for the year ended December 31, 2012, as filed with the Securities and Exchange Commission.

**(2) Description of Business**

Nanophase is a nanomaterials and applications developer and commercial manufacturer with an integrated family of nanomaterial technologies. Nanophase produces engineered nano and sub-micron materials for use in a variety of diverse existing and developing markets: personal care including sunscreens, architectural coatings, architectural window cleaning and restoration, industrial coating ingredients, abrasion-resistant additives, plastics additives, medical diagnostics, energy and a variety of polishing applications, including semiconductors and optics. We target markets in which we believe practical solutions may be found using our 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. Although the Company s primary strategic focus has been the North American market, it currently sells material to customers overseas and has been working to expand its reach within foreign markets.

The Company was incorporated in Illinois in November 1989, and became a Delaware corporation in November 1997. The Company s common stock trades on the OTCQB marketplace under the symbol NANX.

While product sales comprise the majority of our revenue, we also recognized revenue in connection with a technology license (through 2012) 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**

We follow the Financial Accounting Standards Board ( FASB ) Accounting Standards Codification ( ASC ) Topic 820, *Fair Value Measurements and Disclosures*, which defines fair value, establishes a framework for measuring fair value, and expands disclosures about fair value measurements. 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.

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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.

**(4) Investments**

Investments on March 31, 2013 and December 31, 2012 were comprised of certificates of deposit in the amount of \$30,000, pledged as collateral for the Company's rent and restricted as to withdrawal or usage.

**(5) Inventories**

Inventories consist of the following:

	<b>March 31, 2013</b>	<b>December 31, 2012</b>
Raw materials	\$ 315,768	\$ 199,257
Finished goods	765,729	999,391
	1,081,497	1,198,648
Allowance for excess inventory quantities	(60,166)	(60,166)
	<b>\$ 1,021,331</b>	<b>\$ 1,138,482</b>

**(6) 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 \$69,178 and \$82,528 for the three month periods ended March 31, 2013 and 2012, respectively.

As of March 31, 2013, there was approximately \$420,000 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 2.1 years.

**Stock Options and Stock Grants**

During the three months ended March 31, 2013, proceeds of \$3,000 were realized, and 10,000 shares of common stock were issued pursuant to option exercises compared to none for the same period in 2012. For the three months ended March 31, 2013, 543,000 stock options were granted compared to none for the same period in 2012. For the three months ended March 31, 2013, 53,799 stock options were forfeited compared to 121,232 stock options forfeited for the same period in 2012.

**Stock Appreciation Rights**

Prior to 2011, the Company granted its outside directors stock appreciation rights (SARs). The change in fair value of the awards granted during prior years is included in non-cash compensation expense for the quarters ended March 31, 2013 and 2012. 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, 2013 and 2012, and adjusted to fair value each reporting period. The fair value of the liability on March 31, 2013 was \$16,573, compared to \$8,749 on December 31, 2012.

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As of March 31, 2013, the Company did 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 stock options granted during three month periods ended:

	March 31, 2013	March 31, 2012
Weighted-average risk-free interest rates:	1.32%	
Dividend yield:		
Weighted-average expected life of the option:	7 years	
Weighted-average expected stock price volatility:	92.27%	
Weighted-average fair value of the options granted:	\$0.33	

**(7) Significant Customers and Contingencies**

Sales to three customers constituted approximately 79%, 7% and 5%, respectively, of the Company's total revenue for the three months ended March 31, 2013. Amounts included in accounts receivable on March 31, 2013 relating to these three customers were approximately \$857,000, \$201,000 and \$78,000, respectively. Revenue from these three customers constituted approximately 70%, 4% and 5%, respectively, of the Company's total revenue for the three months ended March 31, 2012. Amounts included in accounts receivable on March 31, 2012 relating to these three customers were approximately \$629,000, \$85,000 and \$47,000, respectively. The loss of one of these significant customers or the failure to attract new customers could have a material adverse effect on our business, results of operations and financial condition.

We currently have exclusive 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 from the Company to the customer intended to provide capacity sufficient to meet the customer's production needs. This outcome may occur if we fail to meet certain performance requirements, certain 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 equipment sale at BASF's option) in the event (a) that earnings of the twelve month period ending with our most recently published quarterly financial statements are less than zero and our cash, cash equivalents and certain investments are less than \$1,000,000, 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, (See Liquidity and Capital Resources in Management's Discussion and Analysis in Part I, Item 2 of this Form 10-Q for a further discussion) to operate our business during 2013. 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

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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. Finally, any shortfall in capital needed to operate the business as management intends, including with respect to avoiding this triggering event as described above, may result in a curtailment of certain activities or anticipated investments.

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

Revenue from international sources approximated \$78,000 and \$94,000 for the three months ended March 31, 2013 and 2012, respectively. As part of its revenue from international sources, the Company recognized approximately \$78,000 and \$19,000 in product revenue from international companies for the three months ended March 31, 2013 and 2012, respectively. Revenue from these same international sources approximated \$0 and \$75,000 in other revenue from a technology license fee from its Japanese licensee for the same periods in 2013 and 2012. The agreement has expired as of March 31, 2013.

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

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

### **Overview**

Nanophase is an advanced materials and applications developer and commercial manufacturer with an integrated family of materials technologies. Nanophase produces engineered nano and sub-micron materials for use in a variety of diverse markets: personal care including sunscreens, architectural coatings, industrial coating ingredients, abrasion-resistant additives, plastics additives, medical diagnostics, energy, architectural window cleaning and restoration, and a variety of polishing applications, including semiconductors and optics. We target markets in which we feel practical solutions may be found using our 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. For example, we have applied our skills at producing precisely defined nanomaterials to now create and sell sub-micron material products. Our focus is on customer need where we believe we have an advantage, as opposed to pushing one particular technology. We expect growth in end-user (manufacturing customers, including customers of Nanophase's customers) adoption in 2013 and beyond. Our initiatives in targeted market areas are progressing at differing rates of speed, but we have been broadly moving through testing and development cycles, and in a number of cases believe we are approaching first revenue or next stage revenue with particular customers in the industries referenced above. For example, we commercially launched our family of abrasion-resistant additives during 2011 at the European Coatings Show, and have been working with potential customers, and now commercial customers, since. Our largest customer launched a new product in 2012 that featured material we developed. We also developed new solutions in the polishing and energy-management areas. We expect that we will both work more deeply with current customers and attract additional customers, which should help us achieve growth in these markets in 2013 and beyond.

### **Results of Operations**

Total revenue increased to \$2,979,353 for the three months ended March 31, 2013, compared to \$2,409,338 for the same period in 2012. A substantial majority of our revenue for the three months ended March 31, 2013 was from our largest customer in personal care and sunscreen applications. Product revenue, the primary component of our total revenue, increased to \$2,975,721 for the three months ended March 31, 2013, compared to \$2,330,293 for the same period in 2012. Revenue from our top three customers was approximately 79%, 7% and 5%, respectively, during the three months ended March 31, 2013, compared to 70%, 4% and 5%, respectively, during the same period in 2012.

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Other revenue decreased to \$3,632 for the three months ended March 31, 2013, compared to \$79,045 for the same period in 2012. The majority of this other revenue was comprised of royalties received from a license agreement which has expired.

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 by China. Due to export limitations imposed by China during the summer of 2010, the supply of all Rare Earth elements was drastically reduced during 2011. This 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 pricing and availability concerns eased significantly during 2012, the recent supply issue and severity of the price increase brings incremental uncertainty for customer acceptance of our related polishing business in 2013. 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 and customer development arrangements. Cost of revenue increased to \$2,073,098 for the three months ended March 31, 2013, compared to \$1,845,651 for the same period in 2012. The increase in cost of revenue was primarily driven by the increase in revenue volume, net of efficiencies related to this increase in product flow. We expect to continue new nanomaterial development, primarily using our NanoArc<sup>®</sup> synthesis and dispersion technologies, for targeted applications and new markets during 2013 and beyond. At current revenue levels we have generated a positive gross margin (30%), though margins have been impeded by not having enough revenue to efficiently absorb 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 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 on to customers. As product revenue volume increases, this should result in our fixed manufacturing costs being more efficiently absorbed, leading to increased margins. We expect to continue to focus on reducing controllable variable product manufacturing costs, with potential variability related to the commodity metals markets, but may or may not continue to realize absolute dollar gross margin growth through 2013 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 the development or acquisition of new product applications and coating formulations and the cost of enhancing the Company's 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.

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Research and development expense increased to \$428,730 for the three months ended March 31, 2013, compared to \$399,614 for the same period in 2012. The increases were primarily attributed to increases in materials for development cost and legal fees related to a patent filing. These increases were partially off-set by decreased salary expenses. We do not expect research and development expense to increase significantly in 2013.

Selling, general and administrative expense increased to \$960,668 for the three month period ended March 31, 2013, compared to \$944,315 for the same period in 2012. The net increases were primarily attributed to increased consulting fees and marketing expenses, net of reductions in financial services expenses.

Interest income increased to \$317 for the three month period ended March 31, 2013, compared to \$0 for the same period in 2012. The increase was due to us currently receiving an investment yield from our bank.

## **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 component of our costs of operations, may have a material effect on our operations and financial position in 2013 and beyond if we are unable to pass through any applicable 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 \$3,638,182 on March 31, 2013, compared to \$4,154,234 on December 31, 2012 and \$2,345,306 on March 31, 2012. The net cash used in our operating activities was \$428,457 for the three months ended March 31, 2013, compared to \$358,083 for the same period in 2012. Net cash used in investing activities amounted to \$56,114 for the three months ended March 31, 2013, compared to \$19,375 for the same period in 2012. Capital expenditures, including those under capital lease amounted to \$41,710 and \$36,794 for the three months ended March 31, 2013 and 2012, respectively. Net cash used in financing activities amounted to \$31,481 and \$859 for the three months ended March 31, 2013 and 2012, respectively.

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 \$1 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 \$3.6 million in cash, cash equivalents and short-term investments on March 31, 2013, with no debt. This supply agreement and its covenants are more fully described in Note 7 to the Company's Financial Statements in Part I, Item 1 of this Form 10-Q.

We believe that cash from operations and cash, cash equivalents and investments on hand and accessible capital will be adequate to fund our operating plans through 2013. Our actual future capital requirements in 2013 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

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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. Depending on the success of certain projects, we expect that capital spending relating to currently known capital needs for the remainder of 2013 will be between \$300,000 and \$500,000. If those projects are delayed or ultimately prove unsuccessful, we would expect our capital requirements to be lower.

Should events arise that make it appropriate for us to seek additional financing, such additional financing may not be available on acceptable terms or even at all, and any such additional financing could be dilutive to our shareholders. 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 agreement; or various other circumstances coming to pass that we currently do not anticipate. The failure to have access to sufficient capital to fund our business plans may result in a curtailment or other change in those plans.

On March 31, 2013, we had a net operating loss carryforward of approximately \$77 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 our carryforward expired in 2012. If not utilized, the remaining carryforward will expire at various dates between January 1, 2018 and December 31, 2032. 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.

## **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 (the Exchange Act). 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, 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 future reporting periods to differ materially from those expressed in, or implied by, such statements. These risks, uncertainties and factors include, without limitation: our ability to become profitable despite the losses we have incurred since our incorporation; our dependence on our principal customers and the terms of our supply agreement with BASF which could trigger a requirement to transfer technology and/or sell equipment to that customer; our potential inability to obtain working capital when needed on acceptable terms or at all; our ability to obtain materials at costs we can pass

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through to our customers, including Rare Earth elements, specifically cerium oxide; 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; the resolution of litigation in which we may become involved; our ability to maintain an appropriate electronic trading venue for our securities; and the impact of any potential new governmental regulations that could be difficult to respond to or costly to comply with. In addition, our forward-looking statements could be affected by general industry and market conditions and growth rates. 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.

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

#### **Disclosure controls**

We are responsible for establishing and maintaining disclosure controls and procedures that are designed to ensure that information required to be disclosed by us in the reports filed by us under the Exchange Act is: (a) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms; and (b) accumulated and communicated to our management, including our principal executive and principal financial officers, to allow timely decisions regarding required disclosures. It should be noted that in designing and evaluating our disclosure controls and procedures, we recognize that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and that our management necessarily was required to apply its judgment regarding the design of our disclosure controls and procedures. As of the end of the period covered by this report, we conducted an evaluation, under the supervision (and with the participation) of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures pursuant to Rules 13a-15(e) and 15d-15(e) of the Exchange Act. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective at reaching that level of reasonable assurance.

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

The Company's management, including the CEO and CFO, confirm that there was no change 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.



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

In addition to the information set forth in this Quarterly Report on Form 10-Q and before deciding to invest in, or retain, shares of our common stock, you also should carefully review and consider the information contained in our other reports and periodic filings that we make with the Securities and Exchange Commission, including, without limitation, the information contained under the caption Part I, Item 1A Risk Factors in our Annual Report on Form 10-K for the year ended December 31, 2012. Those risk factors could materially affect our business, financial condition and results of operations. Additional risks and uncertainties that we do not currently know about, we currently believe are immaterial or we have not predicted may also harm our business operations or adversely affect us. If any of these risks or uncertainties actually occurs, our business, financial condition, results of operations, cash flows or stock price could be materially adversely affected. There have been no material changes from the risk factors previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2012.

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

None.

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

None.

### **Item 4. Mine Safety Disclosures**

Not applicable.

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

None.

### **Item 6. Exhibits**

Exhibit 31.1	Certification of Chief Executive Officer pursuant to Rules 13a-14(a) and 15d-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.
Exhibit 101	The following materials from Nanophase Technologies Corporation's Quarterly Report on Form 10-Q for the quarter ended March 31, 2013, formatted in XBRL (Extensible Business Reporting Language): (1) the Balance Sheets, (2) the Statements of Operations, (3) the Statements of Cash Flows, and (4) the Notes to Unaudited Financial Statements.

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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 14, 2013

By: /s/ JESS A. JANKOWSKI  
Jess A. Jankowski  
President and Chief Executive Officer

Date: May 14, 2013

By: /s/ FRANK J. CESARIO  
Frank J. Cesario  
Chief Financial Officer