

NANOPHASE TECHNOLOGIES CORPORATION

Form 10-Q

August 12, 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: June 30, 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 definitions 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 August 8, 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 JUNE 30, 2013**

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

	<b>June 30, 2013 (Unaudited)</b>	<b>December 31, 2012</b>
<b>ASSETS</b>		
<b>Current assets:</b>		
Cash and cash equivalents	\$ 3,161,155	\$ 4,124,234
Investments	30,000	30,000
Trade accounts receivable, less allowance for doubtful accounts of \$6,000 on June 30, 2013 and December 31, 2012	1,598,782	1,031,405
Other receivables	2,002	27,167
Inventories, net	903,298	1,138,482
Prepaid expenses and other current assets	282,238	240,870
Total current assets	5,977,475	6,592,158
Equipment and leasehold improvements, net	2,681,242	3,027,671
Other assets, net	28,595	29,829
	\$ 8,687,312	\$ 9,649,658
<b>LIABILITIES AND STOCKHOLDERS EQUITY</b>		
<b>Current liabilities:</b>		
Current portion of capital lease obligations	\$ 29,596	\$ 34,526
Accounts payable	530,609	680,452
Accrued expenses	506,631	484,460
Total current liabilities	1,066,836	1,199,438
Long-term portion of capital lease obligations	26,083	62,755
Long-term deferred rent	634,640	636,628
Asset retirement obligations	156,902	153,967
Total long-term liabilities	817,625	853,350
<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 June 30, 2013 and December 31, 2012, respectively	284,682	284,582
Additional paid-in capital	95,653,720	95,512,065
Accumulated deficit	(89,135,551)	(88,199,777)
Total stockholders equity	6,802,851	7,596,870
	\$ 8,687,312	\$ 9,649,658

*See Notes to Financial Statements.*

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## NANOPHASE TECHNOLOGIES CORPORATION

## STATEMENTS OF OPERATIONS

(Unaudited)

	Three months ended June 30,		Six months ended June 30,	
	2013	2012	2013	2012
<b>Revenue:</b>				
Product revenue, net	\$ 2,677,493	\$ 2,702,682	\$ 5,653,214	\$ 5,032,975
Other revenue	5,618	80,111	9,250	159,156
Net revenue	2,683,111	2,782,793	5,662,464	5,192,131
<b>Operating expense:</b>				
Cost of revenue	1,834,086	1,932,368	3,907,184	3,778,019
Gross profit	849,025	850,425	1,755,280	1,414,112
Research and development expense	453,091	414,051	881,821	813,665
Selling, general and administrative expense	857,284	812,850	1,817,952	1,757,165
Loss from operations	(461,350)	(376,476)	(944,493)	(1,156,718)
Interest income	427		744	
Interest expense	(1,771)	(1,932)	(9,125)	(3,037)
Other, net	11,100	(26)	17,100	7,199
Loss before provision for income taxes	(451,594)	(378,434)	(935,774)	(1,152,556)
Provisions for income taxes				
Net loss	\$ (451,594)	\$ (378,434)	\$ (935,774)	\$ (1,152,556)
Net loss per share basic and diluted	\$ (0.02)	\$ (0.02)	\$ (0.03)	\$ (0.05)
Weighted average number of basic and diluted common shares outstanding	28,468,162	21,208,162	28,467,444	21,208,162

*See Notes to Financial Statements.*

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

	<b>Six months ended June 30,</b>	
	<b>2013</b>	<b>2012</b>
<b>Operating activities:</b>		
Net loss	\$ (935,774)	\$ (1,152,556)
Adjustment to reconcile net loss to net cash (used in) provided by operating activities:		
Depreciation and amortization	451,058	505,803
Gain on disposal of equipment	(17,100)	
Stock compensation expense	148,975	159,998
Allowance for excess inventory quantities	47,017	
Changes in assets and liabilities related to operations:		
Trade accounts receivable	(567,377)	(327,655)
Other accounts receivable	25,165	4,590
Inventories	188,167	299,116
Prepaid expenses and other assets	(41,368)	(34,983)
Accounts payable	(171,318)	415,663
Accrued expenses	9,964	32,591
Deferred other revenue		135,999
Net cash (used in) provided by operating activities	(862,591)	38,566
<b>Investing activities:</b>		
Proceeds from disposal of equipment	17,100	
Acquisition of equipment and leasehold improvements	(58,582)	(44,950)
Payment of accounts payable incurred for the purchase of equipment and leasehold improvements	(20,404)	(14,941)
Net cash used in investing activities	(61,886)	(59,891)
<b>Financing activities:</b>		
Principal payments on capital leases	(41,602)	(6,650)
Proceeds from exercise of stock options	3,000	
Net cash used in financing activities	(38,602)	(6,650)
Decrease in cash and cash equivalents	(963,079)	(27,975)
Cash and cash equivalents at beginning of period	4,124,234	2,693,623
Cash and cash equivalents at end of period	\$ 3,161,155	\$ 2,665,648
<b>Supplemental cash flow information:</b>		
Interest paid	\$ 9,125	\$ 3,037
<b>Supplemental non-cash investing activities:</b>		
Accounts payable incurred for the purchase of equipment and leasehold improvements	\$ 41,879	\$ 5,646
Capital lease obligations incurred in the purchase of equipment	\$	\$ 120,359

*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 and six months ended June 30, 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 our audited financial statements and notes thereto for the year ended December 31, 2012, included in our 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 and related 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 our primary strategic focus has been the North American market, we currently sell material to customers overseas and have been working to expand our reach in 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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Our 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 June 30, 2013 and December 31, 2012 were comprised of certificates of deposit in the amount of \$30,000, pledged as collateral for our rent and restricted as to withdrawal or usage.

**(5) Inventories**

Inventories consist of the following:

	June 30, 2013	December 31, 2012
Raw materials	\$ 235,108	\$ 199,257
Finished goods	715,207	999,391
	950,315	1,198,648
Allowance for excess inventory quantities	(47,017)	(60,166)
	\$ 903,298	\$ 1,138,482

**(6) Share-Based Compensation**

We follow FASB ASC Topic 718, *Share-Based Payments*, in which compensation expense is recognized only for share-based payments expected to vest. We recognized compensation expense related to stock options of \$69,577 and \$138,755 for the three and six month periods ended June 30, 2013, respectively, compared to \$80,373 and \$162,901 for the same periods in 2012.

As of June 30, 2013, there was approximately \$347,000 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 2.0 years.

**Stock Options and Stock Grants**

During the six months ended June 30, 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. During the six months ended June 30, 2013, 553,000 stock options were granted compared to none for the same period in 2012. During the six months ended June 30, 2013, 91,133 stock options were forfeited compared to 123,233 stock options forfeited during the same period in 2012.

**Stock Appreciation Rights**

Prior to 2011, we granted 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 three and six months ended June 30, 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 June 30, 2013 and 2012, and adjusted to fair value each reporting period. The fair value of the liability on June 30, 2013 was \$18,969 compared to \$8,749 on December 31, 2012.

As of June 30, 2013, we did not have any unvested restricted stock or performance shares outstanding.

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

	June 30, 2013	June 30, 2012
For the three months ended		
Weighted-average risk-free interest rates:	1.47%	
Dividend yield:		
Weighted-average expected life of the option:	7 Years	
Weighted-average expected stock price volatility:	95.16%	
Weighted-average fair value of the options granted:	\$ 0.47	
For the six months ended	June 30, 2013	June 30, 2012
Weighted-average risk-free interest rates:	1.34%	
Dividend yield:		
Weighted-average expected life of the option:	7 Years	
Weighted-average expected stock price volatility:	92.37%	
Weighted-average fair value of the options granted:	\$ 0.33	

**(7) Significant Customers and Contingencies**

Sales to three customers constituted approximately 62%, 11% and 9%, respectively, of our total revenue for the three months ended June 30, 2013, and 71%, 5% and 8%, respectively, of our total revenue for the six months ended June 30, 2013. Amounts included in accounts receivable on June 30, 2013 relating to these three customers were approximately \$845,000, \$284,000 and \$243,000, respectively. Revenue from these three customers constituted approximately 70%, 0% and 5%, respectively, of the Company's total revenue for the three and six months ended June 30, 2012. Amounts included in accounts receivable on June 30, 2012 relating to these three customers were approximately \$945,000, \$0 and \$150,000, 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 covenants. The most restrictive financial 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, we would receive royalty payments from this customer for products sold using our technology; however, we would lose both significant revenue and the ability to

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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. 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 \$379,000 and \$457,000 for the three and six months ended June 30, 2013, respectively, compared to \$185,000 and \$279,000 for the same periods in 2012. As part of our revenue from international sources, we recognized approximately \$379,000 and \$457,000 in product revenue for the three and six months ended June 30, 2013, respectively, compared to \$115,000 and \$135,000 for the same periods in 2012. Other revenue recognized from a technology license fee from our Japanese licensee was \$0 for the three and six months ended June 30, 2013, compared to \$68,000 and \$143,000 for the same periods in 2012. The agreement expired as of March 31, 2013.

Our operations comprise a single business segment and all of our 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.

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### **Results of Operations**

Total revenue decreased to \$2,683,111 for the three months ended June 30, 2013, compared to \$2,782,793 for the same period in 2012. Total revenue increased to \$5,662,464 for the six months ended June 30, 2013, compared to \$5,192,131 for the same period in 2012. Product revenue, the primary component of our total revenue, decreased to \$2,677,493 for the three months ended June 30, 2013, compared to \$2,702,682 for the same period in 2012. Product revenue increased to \$5,653,214 for the six months ended June 30, 2013, compared to \$5,032,975 for the same period in 2012. A substantial majority of our revenue for the three and six month periods ended June 30, 2013 and 2012 was from our largest customer in personal care and sunscreen applications. Revenue from our top three customers was approximately 62%, 11% and 9%, respectively, during the three months ended June 30, 2013, as compared to 71%, 5% and 8%, respectively, for the six months ended June 30, 2013. Revenue from these three customers constituted approximately 70%, 0% and 5%, respectively, of our total revenue for the three and six months ended June 30, 2012.

Other revenue decreased to \$5,618 and \$9,250 for the three and six months ended June 30, 2013, compared to \$80,111 and \$159,156 for the same periods in 2012. The majority of the other revenue recognized during the three and six months ended June 30, 2012 was comprised of royalties received from a license agreement that expired in March 2013.

Cost of revenue generally includes costs associated with commercial production. Cost of revenue decreased to \$1,834,086 for the three months ended June 30, 2013, compared to \$1,932,368 for the same period in 2012. Cost of revenue increased to \$3,907,184 for the six months ended June 30, 2013, compared to \$3,778,019 for the same period in 2012, primarily due to increased revenue volume year over year, 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, 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 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

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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 increased to \$453,091 and \$881,821 for the three and six months ended June 30, 2013, respectively, compared to \$414,051 and \$813,665 for the same periods in 2012. The increases were primarily attributed to increases in materials for new product development and legal fees related to a patent filing. We do not expect research and development expense to increase significantly in 2013.

Selling, general and administrative expense increased to \$857,284 and \$1,817,952 for the three and six months ended June 30, 2013, respectively, compared to \$812,850 and \$1,757,165 for the same periods in 2012. The net increases were primarily attributed to increases in consulting fees and marketing expenses, net of reductions in financial services and depreciation expenses.

Interest income increased to \$427 and \$744 for the three and six months ended June 30, 2013, respectively, compared to \$0 for the same periods in 2012. The increase was due to us currently receiving a small investment yield on excess funds 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 \$3,191,155 on June 30, 2013, compared to \$4,154,234 on December 31, 2012 and \$2,695,648 on June 30, 2012. The net cash used in our operating activities was \$862,591 for the six months ended June 30, 2013, compared to \$38,566 cash provided for the same period in 2012, primarily due to a temporary working capital benefit of nearly \$0.5 million recognized during the first six months of 2012, which reversed into a use of funds of approximately \$0.5 million recognized during the first six months of 2013. Net cash used in investing activities amounted to \$61,886 for the six months ended June 30, 2013, compared to \$59,891 for the same period in 2012. Capital expenditures, including those under capital leases amounted to \$58,582 and \$165,309 for the six months ended June 30, 2013 and 2012, respectively. Net cash used in financing activities was \$38,602 for the six months ended June 30, 2013 compared to \$6,650 for the same period in 2012, as we paid off a capital lease during 2013.

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 \$3.2 million in cash, cash equivalents and short-term investments on June 30, 2013, with no debt. This supply agreement and its covenants are more fully described in Note 7 to our Financial Statements in Part I, Item 1 of this Form 10-Q.

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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 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 \$150,000 and \$300,000. 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 June 30, 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

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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 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.



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**PART II OTHER INFORMATION**

**Item 1. Legal Proceedings**

None.

**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.

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**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 June 30, 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: August 12, 2013

By: /s/ JESS A. JANKOWSKI  
Jess A. Jankowski  
President, Chief Executive Officer (principal executive officer) and a  
Director

Date: August 12, 2013

By: /s/ FRANK J. CESARIO  
Frank J. Cesario  
Chief Financial Officer (principal financial and chief accounting  
officer)