

NANOPHASE TECHNOLOGIES CORPORATION

Form 10-Q

November 09, 2009

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## SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

### Form 10-Q

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

For the Quarterly Period Ended: September 30, 2009

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)

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**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 November 9, 2009, 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 SEPTEMBER 30, 2009**

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

	September 30, 2009	December 31, 2008
<b>ASSETS</b>		
<b>Current assets:</b>		
Cash and cash equivalents	\$ 1,141,253	\$ 723,069
Investments	1,879,168	6,908,888
Trade accounts receivable, less allowance for doubtful accounts of \$9,000 on September 30, 2009 and December 31, 2008	784,738	1,092,125
Other receivable		7,749
Inventories, net	1,215,858	1,154,207
Prepaid expenses and other current assets	352,168	482,452
<b>Total current assets</b>	<b>5,373,185</b>	<b>10,368,490</b>
Investments	5,340,000	5,340,000
Equipment and leasehold improvements, net	5,824,031	6,651,842
Other assets, net	40,087	39,765
	<b>\$ 16,577,303</b>	<b>\$ 22,400,097</b>
<b>LIABILITIES AND STOCKHOLDERS EQUITY</b>		
<b>Current liabilities:</b>		
Current portion of deferred other revenue		74,243
Current portion of capital lease obligations	8,277	22,211
Current portion of long-term debt, less unamortized debt discount		1,570,346
Accounts payable	381,103	356,853
Accrued expenses	1,359,984	1,493,262
Accrued severance	179,403	541,014
<b>Total current liabilities</b>	<b>1,928,767</b>	<b>4,057,929</b>
Long-term portion of capital lease obligations	2,940	9,219
<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, 30,000,000 shares authorized; 21,204,162 and 21,188,912 shares issued and outstanding on September 30, 2009 and December 31, 2008, respectively	212,042	211,889
Additional paid-in capital	92,132,943	91,597,529
Accumulated deficit	(77,699,389)	(73,476,469)

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Total stockholders' equity	14,645,596	18,332,949
	\$ 16,577,303	\$ 22,400,097

*See Notes to Financial Statements.*

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

	Three months ended September 30, As Adjusted		Nine months ended September 30, As Adjusted	
	2009	2008	2009	2008
<b>Revenue:</b>				
Product revenue, net	\$ 1,633,653	\$ 1,967,061	\$ 4,431,199	\$ 7,721,408
Other revenue	87,828	111,906	306,103	356,072
Net revenue	1,721,481	2,078,967	4,737,302	8,077,480
<b>Operating expense:</b>				
Cost of revenue	1,264,058	1,789,049	4,009,345	5,625,533
Gross Profit	457,423	289,918	727,957	2,451,947
Research and development expense	433,593	443,241	1,218,712	1,298,175
Selling, general and administrative expense	913,456	1,113,156	2,964,966	4,217,542
Severance charges		1,578,859	794,069	1,578,859
Loss from operations	(889,626)	(2,845,338)	(4,249,790)	(4,642,629)
Interest income	15,990	82,301	74,284	330,311
Interest expense	(2,076)	(29,410)	(35,362)	(100,969)
Other, net		(8,651)	(12,052)	(8,494)
Loss before provision for income taxes	(875,712)	(2,801,098)	(4,222,920)	(4,421,781)
Provisions for income taxes				
Net loss	\$ (875,712)	\$ (2,801,098)	\$ (4,222,920)	\$ (4,421,781)
Net loss per share-basic and diluted	\$ (0.04)	\$ (0.13)	\$ (0.20)	\$ (0.21)
Weighted average number of common shares outstanding	21,204,162	21,150,568	21,201,927	21,129,369

*See Notes to Financial Statements.*

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

	<b>Nine months ended September 30, As Adjusted</b>	
	<b>2009</b>	<b>2008</b>
<b>Operating activities:</b>		
Net loss	\$ (4,222,920)	\$ (4,421,781)
Adjustment to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	943,780	953,917
Amortization of debt discount	27,076	42,853
Amortization of deferred revenue	(74,243)	(95,454)
Stock compensation expense	338,526	591,160
Charges for accelerated vesting of stock options	210,694	592,785
Allowance for excess inventory quantities	14,791	
Loss on disposal of equipment	13,451	11,792
Abandonment of trademarks		37,214
Changes in assets and liabilities related to operations:		
Trade accounts receivable	307,387	208,377
Other receivable	7,749	(392)
Inventories	(76,442)	(321,331)
Prepaid expenses and other assets	130,284	(73,261)
Accounts payable	53,988	345,066
Accrued expenses	(513,178)	799,891
Net cash used in operating activities	(2,839,057)	(1,329,164)
<b>Investing activities:</b>		
Proceeds from disposal of equipment	24,000	1,800
Acquisition of equipment and leasehold improvements	(141,037)	(405,118)
Acquisition of trademarks	(2,181)	
Payment of accounts payable incurred for the purchase of equipment and leasehold improvements	(35,626)	(5,318)
Purchases of investments	(111,041,471)	(176,315,399)
Sales of investments	116,071,191	178,101,203
Net cash provided by investing activities	4,874,876	1,377,168
<b>Financing activities:</b>		
Principal payment on debt obligations, including capital leases	(1,617,635)	(31,967)
Proceeds from sale of common stock, net, and exercise of stock options.		30,417
Net cash used by financing activities	(1,617,635)	(1,550)
Increase in cash and cash equivalents	418,184	46,454
Cash and cash equivalents at beginning of period	723,069	563,075
Cash and cash equivalents at end of period	\$ 1,141,253	\$ 609,529

**Supplemental cash flow information:**

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Interest paid	\$	21,956	\$	61,346
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**Supplemental non-cash investing activities:**

Accounts payable incurred for the purchase of equipment and leasehold improvements	\$	5,888	\$	37,922
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*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 and nine month periods ended September 30, 2009 are not necessarily indicative of the results that may be expected for the year ending December 31, 2009.

These financial statements should be read in conjunction with the Company s audited financial statements and notes thereto for the year ended December 31, 2008, included in the Company s Annual Report on Form 10-K, as amended, for the year ended December 31, 2008, 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, industrial coating ingredients, abrasion-resistant applications, plastic additives, water filtration, DNA biosensors 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. 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.

We also recognize other revenue in connection with a promissory note to BYK Chemie that was fully repaid during July 2009 and from an ongoing technology license. These activities are not expected to drive the long-term growth of the business. Both the deferred and license revenue are recognized as other revenue in the Company s Statement of Operations, as they do not represent revenue directly from sales of our nanocrystalline materials.

**(3) Change in Accounting Method**

We decided to change the method of accounting for patent costs during the fourth quarter of 2008. We now expense patent costs instead of capitalizing them. Prior practice was to begin the legal process of applying for patents, then record all associated costs as intangible assets. If a patent were granted, the costs would continue to be capitalized and amortized over the estimated economic life of the patent. If a patent application were rejected or abandoned, the unamortized cost would then be expensed.

With the increase in time required to obtain a patent now extending to several years, it has become less likely that the invention underlying that patent would still be valuable to our business at the time of issuance. In addition, the lack of direct experience with patent assets protecting our products and revenue streams has caused us to reconsider our ability to assign value to such assets. In addition, we concluded that the rejection of certain claims following a protracted re-examination proceeding by the US Patent and Trademark Office that was finalized during 2008 would not materially harm our business. For these and other reasons, we believe that it is no longer reasonable to predict whether a patent will be granted, when it will be granted or whether all the claims in a granted patent ultimately will be upheld. Therefore, management believes it is preferable to expense all patent costs incurred as period costs. The expensing of patent costs as a period cost will more closely align these expenses with the time when we expect to recognize the related revenue from the patented technology.

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The change in accounting method to expense patent costs was completed in accordance with FASB ASC Section 250 (formerly SFAS No. 154 *Accounting Changes and Error Corrections*). The Company applied this change in accounting method by retrospectively restating prior year financial statements.

The effect of the change in accounting method on operating results for the three and nine month periods ended September 30, 2008 was as follows:

	<b>Three months ended September 30, 2008</b>		
	<b>As Originally Reported</b>	<b>As Adjusted for Accounting Change</b>	<b>Effect of Change</b>
<b>Statements of operations</b>			
Patent abandonment	\$ 25,844	\$	\$ 25,844
Patent expense		1,818	(1,818)
Amortization expense	11,556	2,098	9,458
Loss from operations	(2,878,822)	(2,845,338)	33,484
Net loss	(2,834,582)	(2,801,098)	33,484
Basic and diluted loss per share	(0.13)	(0.13)	

	<b>Nine months ended September 30, 2008</b>		
	<b>As Originally Reported</b>	<b>As Adjusted for Accounting Change</b>	<b>Effect of Change</b>
<b>Statements of operations</b>			
Patent abandonment	\$ 156,680	\$	\$ 156,680
Patent expense		36,425	(36,425)
Amortization expense	34,574	6,218	28,356
Loss from operations	(4,791,240)	(4,642,629)	148,611
Net loss	(4,570,392)	(4,421,781)	148,611
Basic and diluted loss per share	(0.22)	(0.21)	0.01

The effect of the change in accounting method on the statements of cash flows for the nine months ended September 30, 2008 was as follows:

	<b>Nine months ended September 30, 2008</b>		
	<b>As Originally Reported</b>	<b>As Adjusted for Accounting Change</b>	<b>Effect of Change</b>
Net loss	\$ (4,570,392)	\$ (4,421,781)	\$ 148,611
Depreciation and amortization	982,273	953,917	(28,356)
Patent/trademark abandonment charges	193,894	37,214	(156,680)
Net cash used in operating activities	(1,292,739)	(1,329,164)	(36,425)
Acquisition of patents	(36,425)		36,425
Net cash provided by investing activities	1,340,743	1,377,168	36,425
Increase in cash and cash equivalents	46,454	46,454	
Cash and cash equivalents, January 1, 2008	563,075	563,075	
Cash and cash equivalents, September 30, 2008	\$ 609,529	\$ 609,529	\$



**Table of Contents****(4) 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.

*Level 3:* Unobservable inputs reflecting management's own assumptions about the inputs used in pricing the asset or liability. As of September 30, 2009, the fair values of our financial assets are approximately categorized as follows:

	Total	Level 1	Level 2	Level 3
<b>Financial Assets</b>				
Auction rate securities <sup>(a)</sup>	\$ 5,340,000	\$	\$	\$ 5,340,000
Available-for-sale securities <sup>(b)</sup>	1,849,000	1,849,000		
Held-to-maturity investments <sup>(c)</sup>	30,000	30,000		
	\$ 7,219,000	\$ 1,879,000	\$	\$ 5,340,000

There are no financial liabilities adjusted to fair value as of September 30, 2009.

(a) Based on appraisal net of any mark-to-market adjustments (see Note 5).

(b) Based on the price of United States treasury bills.

(c) Based on stated bank rates.

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On January 1, 2009 we adopted the provisions of FASB ASC Section 820-10-65 (formerly SFAS 157-2) for our nonfinancial assets and liabilities that are not required to be measured at fair value on a recurring basis. The adoption of FASB ASC Section 820-10-65 (formerly SFAS 157-2) for our nonfinancial assets and liabilities did not have a significant effect on our results of operations or financial condition.

**(5) Investments and Subsequent Event**

Investments on September 30, 2009 and December 31, 2008 were comprised of auction rate securities, United States treasury bills, certificates of deposit and a money market fund. Included in these investments are certificates of deposit in the amount of \$30,000, which are pledged as collateral, primarily for the Company's rent in 2009 and 2008, and is restricted as to withdrawal or usage. Investments held in short-term auction rate securities and certificates of deposit have maturity days of less than 30 days. The Company's investments on September 30, 2009 and December 31, 2008 were as follows:

	September 30, 2009	December 31, 2008
United States treasury bills	\$ 1,847,174	\$ 6,875,982
Certificates of deposit	30,000	30,000
Accrued interest	1,994	2,906
	1,879,168	6,908,888
Auction rate securities	5,340,000	5,340,000
	\$ 7,219,168	\$ 12,248,888

As of September 30, 2009, our remaining investments in auction rate securities (ARS) totaled \$5.34 million, net of impairment charge. These ARS holdings in the Company's investment portfolio have experienced failed auctions due to a lack of available buyers for them on their expected auction dates. An auction failure means that parties wishing to sell their securities could not be matched with an adequate volume of buyers. In the event there is a failed auction the indenture governing the security requires the issuer to pay interest at a contractually defined rate. Despite these failed auctions, there have been no defaults on the underlying securities or investment income on these ARS holdings. They have been issued through the Federal Family Education Loan Program (FFELPs Loans) and carry an AAA credit rating. These FFELPs Loans are guaranteed to 97% of their \$6 million value by the Department of Education and we are not aware of any defaults or threatened defaults by any of the underlying securities, the risk of which we believe to be very low. However, these failed auctions have caused us to change the level of inputs to determine their fair values. These values were estimated as of December 31, 2008 by an independent appraisal firm, Houlihan, Smith & Company, Inc., using a discounted cash flow model. Since these inputs were not observable they are classified as Level 3 inputs (see Note 4). As a result, for the period ended December 31, 2008, we recognized an other than temporary impairment loss on the ARS in the amount of \$660,000, thus reducing the \$6 million in nominal value to \$5.34 million in net carrying value. We believe that the fair value estimates made for the year ended December 31, 2008 have not changed through September 30, 2009, and therefore, no changes to the carrying value of these investments have been made. We will continue to monitor the creditworthiness of the issuers and underwriting of these securities and make any adjustments we deem necessary to reflect the fair value of these securities.

It is our intention to sell these instruments for as close to their \$6 million value as possible as soon as we are able to do so. However, because we cannot ascertain when we may ultimately sell these instruments, and they have stated maturities in excess of one year, we have classified these securities as long-term on the September 30, 2009 balance sheet. Additional information about these securities, all with maturities in excess of 10 years, includes:

1. \$2 million principal value Brazos Higher Ed Auth 2006 A, which we value at approximately \$1.8 million based on a 5-6% liquidity premium and a very low risk of default. This instrument matures 12/1/2042 and carries a variable coupon interest rate (2% as of date of this filing, which has been impacted by depressed benchmark rates). This obligation is insured and collateralized by student loans.

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2. \$2 million principal value Connecticut Student Loan Foundation 2004 A-6, which we valued at approximately \$1.8 million based on a 5-6% liquidity premium and a very low risk of default. This instrument would have matured 6/1/2034 and carried a variable coupon interest rate (0-3% recent range; low end of range as of this filing due to depressed benchmark rates). This instrument was sold in October 2009, the details of which are set forth below.

3. \$2 million principal value Illinois Student Assistance Ser VIII-1, which we value at approximately \$1.8 million based on a 5-6% liquidity premium and a very low risk of default. This instrument matures 6/1/2045 and carries a variable coupon interest rate (0-2% recent range; low end of range as of this filing due to depressed benchmark rates). This obligation is insured and collateralized by student loans.

In addition, pursuant to the applicable rules of the Financial Industry Regulatory Authority ( FINRA ), we recently filed an arbitration demand against Credit Suisse Securities (USA) LLC ( Credit Suisse ), the Company's investment advisor with respect to our ARS investments. The arbitration demand alleges that Credit Suisse misrepresented to us that ARS were safe, liquid, short-term investments which were equivalent to cash or money market investments. Through the arbitration, we seek recovery of the reduced value of our ARS investments and other damages arising from the misrepresentation. The hearing on our arbitration has been scheduled for April 10, 2010.

Subsequent to the reporting date, during October 2009 we sold the Connecticut Student Loan Foundation bond (#2 above) pursuant to a reverse auction tender offer initiated by the Connecticut Student Loan Foundation. Our net proceeds were in excess of \$1.7 million, which is expected to be in our cash balance as of December 31, 2009. We are seeking the difference between the net proceeds and the \$2 million par value as part of our damages in the FINRA claim noted above. This information will be considered as we perform a re-valuation of our ARS portfolio during the fourth quarter 2009.

**(6) Inventories**

Inventories consist of the following:

	September 30, 2009	December 31, 2008
Raw materials	\$ 261,971	\$ 183,150
Finished goods	1,011,324	1,013,704
	1,273,295	1,196,854
Allowance for excess inventory quantities	(57,437)	(42,647)
	\$ 1,215,858	\$ 1,154,207

**(7) Share-Based Compensation**

The Company follows FASB ASC Topic 718 (formerly SFAS 123(R)), 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 \$105,868 and \$313,283 for the three and nine month periods ended September 30, 2009, compared to \$150,971 and \$489,112 for the same periods in 2008. The Company also recognized stock compensation expense related to accelerated vesting of stock options pursuant to severance agreements in the amount of \$0 and \$210,694 during the three and nine month periods ended September 30, 2009, respectively.

As of September 30, 2009, there was approximately \$654,000 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.

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## Employees Stock Options and Stock Grants

During the nine months ended September 30, 2009, no shares of common stock were issued pursuant to option exercises compared to 16,667 shares for the same period in 2008. For the nine months ended September 30, 2009, 325,500 shares of stock options were granted compared to 330,000 for the same period in 2008. For the nine months ended September 30, 2009, 1,014,401 shares of stock options were forfeited, primarily due to the departure of Company executives as described in Note (10), compared to 101,721 shares for the same period in 2008.

## Restricted Stock

On July 1, 2009, the Company granted its outside directors stock appreciation rights (SAR s) totaling 15,250 shares, under the Company s Amended and Restated 2006 Stock Appreciation Rights Plan. The fair value of the awards granted was \$6,369 and is included in stock-based compensation expense for the three months ended September 30, 2009. The SAR s granted vested immediately and are payable upon the directors removal or resignation from the position of director.

On April 8, 2009, the Company granted its outside directors SAR s totaling 15,250 shares, under the Company s Amended and Restated 2006 Stock Appreciation Rights Plan. The fair value of the awards granted was \$7,284 and is included in stock-based compensation expense for the nine months ended September 30, 2009. The SAR s granted vested immediately and are payable upon the directors removal or resignation from the position of director.

For the three months ended September 30, 2009 and 2008, respectively, the Company granted its outside directors shares of deferred common stock totaling none and 19,739 shares, under the Company s 2005 Non-Employee Director Restricted Stock Plan. For the nine months ended September 30, 2009 and 2008, those numbers were 15,250 and 45,701, respectively. However, each outside director elected to defer receipt of the restricted stock until the termination of his or her services to the Company. The deferral of restricted stock is being accounted for under the Company s Non-Employee Director Deferred Compensation Plan. The fair value of awards granted was \$11,590 and \$135,000 for the restricted share rights and is included in stock-based compensation expense for the nine months ended September 30, 2009 and 2008, respectively.

As of September 30, 2009, the Company does not have any unvested restricted stock or performance shares outstanding.

We used an estimated forfeiture rate of 4.28% for performance shares for the nine month period ended September 30, 2008. For the three and nine months ended September 30, 2008, the stock-based compensation expense (recovery) was (\$15,293) and (\$3,756) for the restricted share rights. For the three and nine months ended September 30, 2008, the stock-based compensation (recovery) was (\$21,993) and (\$29,319) for the performance share rights totaling (\$37,286) and (33,075) in stock-based compensation recovery. There was no expense or recovery for these items during 2009.

For the nine months ended September 30, 2009, 325,500 options were granted. The following table illustrates the various assumptions used to calculate the Black-Scholes option pricing model for the periods presented:

<b>For the three months ended</b>	<b>September 30, 2009</b>	<b>September 30, 2008</b>
Weighted-average risk-free interest rates:	2.85%	
Dividend yield:		
Weighted-average expected life of the option:	7 Years	
Weighted-average expected stock price volatility:	78.50%	
Weighted-average fair value of the options granted:	\$ .70	

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<b>For the nine months ended</b>	<b>September 30, 2009</b>	<b>September 30, 2008</b>
Weighted-average risk-free interest rates:	2.64%	3.44%
Dividend yield:		
Weighted-average expected life of the option:	7 Years	7 Years
Weighted-average expected stock price volatility:	73.68%	75.08%
Weighted-average fair value of the options granted:	\$ .74	\$ 2.26

**(8) Significant Customers and Contingencies**

Revenue from two customers constituted approximately 61% and 11%, respectively, of the Company's total revenue for the three months ended September 30, 2009, as compared to 60% and 17%, respectively, of the Company's total revenue for the nine months ended September 30, 2009. No other customer was individually significant for either period. Amounts included in accounts receivable on September 30, 2009 relating to these customers were approximately \$275,000 and \$48,000, respectively. Revenue from these two customers constituted approximately 51% and 22% respectively, of the Company's total revenue for the three months ended September 30, 2008, as compared to 40% and 30%, respectively, of the Company's total revenue for the nine months ended September 30, 2008. Amounts included in accounts receivable on September 30, 2008 relating to these customers were approximately \$396,000 and \$185,000 respectively.

We currently have supply agreements with BASF Corporation (BASF), our largest customer, and a technology development agreement with Altana Chemie, that have contingencies outlined in them 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 other obligations and/or certain financial condition covenants. The financial condition covenants in one of these supply agreements with BASF trigger a technology transfer (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, (b) of an acceleration of any debt maturity having a principal amount of more than \$10,000,000, or (c) our insolvency, as further defined within the agreement. In the event of an equipment sale, upon incurring a triggering event, the equipment would be sold to the customer at 115% of the equipment's net book value. Under another of our supply agreements with BASF, upon our breach of its contractual obligations to BASF, we would be required to sell BASF certain production equipment 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 and investment balances, including the value of the ARS portfolio and with the debt-free balance sheet as of November 2009, to avoid the first triggering event under the supply agreement with BASF through 2010. 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 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 or our technology development agreement with Altana Chemie. 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



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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 \$230,000 and \$558,000 for the three and nine months ended September 30, 2009 compared to \$128,000 and \$576,000 for the same periods in 2008. As part of its revenue from international sources, we recognized approximately \$314,000 in product revenue from several German companies and \$225,000 in other revenue from a technology license fee from a Japanese licensee for the nine months ended September 30, 2009. Revenue from these same international sources approximated \$243,000 and \$225,000 for the same period in 2008.

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

### **(10) Severance Charges**

In the first quarter of 2009, we announced the resignations of Mr. Robert Haines, our then-current Vice-President of Operations, and Dr. Richard Brotzman, our then-current Chief Technology Officer. Additionally, we eliminated twelve positions within the Operations group as a result of a reorganization plan implemented to align the organization with current demand based upon current economic conditions and the Company's shift in strategy to develop a more customer-focused direct selling approach. During this process, management continues to seek to build its marketing and applications development capabilities. As a result of these resignations, the Company incurred a total of \$794,069 of cash and non-cash severance charges. Included in these charges were salaries and benefits, accelerated vesting of stock options (non-cash) and other expenses. Of these charges, approximately \$211,000 or 27% were related to the accelerated vesting of stock option which have no cash impact and are expected to have a minimal dilutive effect if any.

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

In April 2009, the Financial Accounting Standards Board ( FASB ) issued Accounting Codification Statement ( ASC ) 805-10, 805-20 and 805-30 (formerly FSP SFAS 141(R)-1), Accounting for Assets Acquired and Liabilities Assumed in a Business Combination That Arise from Contingencies , to amend the provisions related to the initial recognition and measurement, subsequent measurement and disclosure of assets and liabilities arising from contingencies in a business combination under ASC 805 (formerly SFAS 141(R)). Under the new guidance, assets acquired and liabilities assumed in a business combination that arise from contingencies should be recognized at fair value on the acquisition date if fair value can be determined during the measurement period. If fair value cannot be determined, companies should typically account for the acquired contingencies using existing guidance. We adopted this pronouncement on January 1, 2009. The adoption did not have a material effect on our financial position or results of operations.

In January 2009, we adopted FASB ASC Topic 815 (formerly SFAS No. 161, *Disclosures about Derivative Instruments and Hedging Activities, an Amendment of SFAS No. 133*, ( SFAS No. 161 )), which is intended to improve transparency in financial reporting. As required by FASB ASC Topic 815 (formerly SFAS No. 161), we adopted the provisions of FASB ASC Topic 815 (formerly SFAS 161) and it had no effect on our financial statements.

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In May 2009, the FASB issued ASC 855-10 (formerly SFAS 165), *Subsequent Events*, to establish general standards of accounting for and disclosure of events that occur after the balance sheet date but before financial statements are issued or are available to be issued. We adopted this pronouncement for the quarter ended June 30, 2009. The adoption did not have an effect on our financial position or results of operations. We evaluated for disclosure any subsequent events through the November 9, 2009 filing date of this Quarterly Report on Form 10-Q, and determined there are no additional material events that warrant disclosure.

In June 2009, the FASB issued ASC 105-10 (formerly SFAS No. 168), *The FASB Accounting Standards Codification and the Hierarchy of Generally Accepted Accounting Principles*, which authorized the Codification as the sole source for authoritative U.S. GAAP. We adopted ASC 105-10 for the quarter ended September 30, 2009. The adoption did not have an effect on our financial position or results of operations.

In June 2009, the FASB issued ASC 860 (formerly SFAS No. 166), *Accounting for Transfers of Financial Assets* (SFAS 166), *Transfers and Servicing*, which revises SFAS No. 140, *Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities*. ASC 860 (formerly SFAS 166) will require entities to provide additional information about transfers of financial assets, including securitization transactions, and where companies have continuing exposure to the risks related to transferred financial assets. ASC 860 (formerly SFAS 166) eliminates the concept of a qualifying special-purpose entity, changes the requirements for derecognizing financial assets and requires additional disclosures. ASC 860 (formerly SFAS 166) becomes effective for us on January 1, 2010, and will be applied prospectively. We are currently assessing the impact, if any, that the adoption of ASC 860 (formerly SFAS 166) will have on our results of operations or financial position.

In June 2009, the FASB issued ASC 810 (formerly SFAS No. 167), *Amendments to FASB Interpretation No. 46(R)* (SFAS 167), *Consolidation*, which is a revision to FASB Interpretation No. 46(R), *Consolidation of Variable Interest Entities* (FIN 46(R)). ASC 810 (formerly SFAS 167) changes how a company determines when an entity that is insufficiently capitalized or is not controlled through voting (or similar rights) should be consolidated. Qualified special-purpose entities (QSPEs) will no longer be excepted from the FIN 46(R) guidance. The determination of whether a company is required to consolidate an entity is based on, among other things, an entity's purpose and design and a company's ability to direct the activities of the entity that most significantly impact the entity's economic performance. ASC 810 (formerly SFAS 167) becomes effective for us on January 1, 2010. We are currently assessing the impact, if any, that the adoption of ASC 810 (formerly SFAS 167) will have on our results of operations or financial position.

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

### **Overview**

Nanophase is a nanomaterials 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 coatings, ingredients, personal care, abrasion-resistant applications, plastics additives, water filtration, DNA biosensors 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. Toward that end, we work closely with leaders in these target markets to identify their material and performance requirements and market material solutions to various end-use applications manufacturers. More recently developed technologies have made certain new products possible and opened potential new markets. We have added a large number of potential customers to our sales funnel during the past nine months, many with new applications for our material technologies, and are in various stages of qualification with them. Some of these qualification cycles may take as little as six months, while others may take 2-4 years, if not longer. There can be no assurance that we will be successful in securing these potential customers or in completing the qualification process with them, or that these relationships will translate into meaningful revenues for the Company.

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On August 25, 2006, the Company sold, in a private placement to Rohm and Haas Electronic Materials CMP Holdings, Inc., 847,918 shares of common stock at \$5.90 per share and received gross proceeds of \$5.0 million. In accordance with our agreement, we plan to file a registration statement for these shares on Form S-3 during 2009.

Our revenue depends largely on the performance of the consumer products and exterior coatings markets. Both have been impacted by the global recession and the focus of firms that are or might be our customers to reduce their inventories and focus on cheaper products that are less likely to contain our higher performance materials. The exterior coatings market is further directly impacted by the housing industry, which has suffered a severe negative trend and is only recently showing signs of stabilizing. It is our intention to broaden our market reach to avoid excessive reliance on any particular customer or industry. We are doing this by addressing several market segments with targeted solutions.

## **Results of Operations**

Total revenue decreased to \$1,721,481 and \$4,737,302 for the three and nine months ended September 30, 2009, compared to \$2,078,967 and \$8,077,480 for the same periods in 2008. A substantial majority of the revenue for the three and nine month periods ended September 30, 2009 is from our two largest customers. See Note 8 to the Financial Statements for additional information regarding the revenue the Company derived from these customers for the three and nine month periods ended September 30, 2009. Product revenue decreased to \$1,633,653 and \$4,431,199 for the three and nine months ended September 30, 2009, compared to \$1,967,061 and \$7,721,408 for the same periods in 2008. The decrease in product revenue was primarily attributed to decreased sales from our second largest customer and aggressive inventory reduction programs that have been felt across our and many other industries, as well as decreased sales to Rohm and Haas Electronic Materials and BYK-Chemie. We and BASF currently have a technology agreement in place that has led to the joint development of the second generation of sunscreen nanomaterials for other potential personal care applications.

Other revenue decreased to \$87,828 and \$306,103 for the three and nine months ended September 30, 2009, compared to \$111,906 and \$356,072 for the same periods in 2008. This decrease was primarily attributed to recognizing revenue in connection with a promissory note to BYK Chemie that was fully repaid during July 2009, and during an evaluation agreement with a customer during 2008.

The majority of the total revenue generated during the nine-month period ended September 30, 2009 was from our largest customer in healthcare (sunscreens), from an application in architectural coatings (our second largest customer) and from sales to several smaller customers.

Cost of revenue generally includes costs associated with commercial production and customer development arrangements. Cost of revenue decreased to \$1,264,058 and \$4,009,345 for the three and nine months ended September 30, 2009, compared to \$1,789,049 and \$5,625,533 for the same periods in 2008. The decrease in cost of revenue was generally attributed to decreased revenue volume, along with decreases in commodity metals pricing, reduction in manufacturing overhead and the continued efficiencies in reducing our remaining variable manufacturing costs for nanomaterials. These decreases were partially offset by inefficiencies due to decreased utilization of production assets. We expect to continue new nanomaterial development, primarily using our NanoArc<sup>®</sup> synthesis and dispersion technologies, for targeted applications and new markets during the remainder of 2009 and beyond. Even 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 eliminated twelve positions within the Operations group as a result of a cost savings initiative implemented in the first quarter of 2009 that we expect will

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have a positive near-term impact on margins. Indeed, during the third quarter 2009 we enjoyed a \$0.2 million increase in gross margin despite a \$0.3 million decrease in revenue, as compared to the third quarter 2008. Management continues to believe that the current fixed manufacturing cost structure is sufficient to support significantly higher levels of production, given current revenue mix and resultant product revenue. The extent to which margins continue to grow, as a percentage of total revenue, will be dependent upon revenue mix, revenue volume, our ability to manage costs and our ability to pass commodity market-driven raw materials increases on to its customers. With product revenue volume increases, more of our fixed manufacturing costs would be absorbed, which should lead to increased margins. We expect to continue to focus on reducing controllable variable product manufacturing costs through 2009 and beyond, with potential offsetting increases in the commodity metals markets, but may or may not continue to see absolute dollar gross margin growth through 2009 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. In another 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. Much of this work has led to several new products and additional potential new products for use by BYK-Chemie and other customers of Nanophase.

Now that we have 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. Management is now working on several related commercial opportunities. We expect that this technique should not be difficult 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 \$433,593 and \$1,218,712 for the three and nine months ended September 30, 2009, compared to \$443,241 and \$1,298,175 for the same periods in 2008. The decrease in research and development expense was largely attributed to reduction in salary and stock compensation (non-cash) expenses. We do not expect research and development expense to increase significantly during the fourth quarter 2009.

Selling, general and administrative expense decreased to \$913,456 and \$2,964,966 for the three and nine months ended September 30, 2009, compared to \$1,113,156 and \$4,217,542 for the same periods in 2008. The net decrease, quantified for the nine month period, was primarily attributed to decreases in salary expense (\$730,000), legal fees (\$365,000) and non-cash stock compensation (\$150,000) expenses. These decreases were partially offset by increased consulting fees (\$40,000).

In the first quarter of 2009, we announced the resignations of Mr. Robert Haines, our then-current Vice-President of Operations, and Dr. Richard Brotzman, our then-current Chief Technology Officer. Additionally, we eliminated twelve positions within the Operations group as a result of a reorganization plan implemented to align the organization with current demand based upon current economic conditions and the Company's shift in strategy to develop a more customer-focused direct selling approach. During this process, management continues to seek to build its marketing and applications development capabilities. As a result of the above resignations, the Company incurred a total of \$794,069 of cash and non-cash severance charges. Included in these charges were salaries and benefits, accelerated vesting of stock options (non-cash) and other expenses. Of these charges, approximately \$211,000 or 27% were related to the accelerated vesting of stock options which have no cash impact and are expected to have a minimal dilutive effect if any. We believe that the impact of all cost savings and realignment measures implemented during 2008 and 2009 will be an annual savings of approximately \$2 million.

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Interest income decreased to \$15,990 and \$74,284 for the three and nine months ended September 30, 2009, compared to \$82,301 and \$330,311 for the same period in 2008. The decrease was primarily due to severely decreased investment yields and decreases in funds available for investment.

## **Inflation**

Management believes inflation has not had a material effect on the Company's operations or on its financial position. However, supplier price increases and wage and benefit inflation, both of which represent a significant component of the Company's costs of operations, may have a material effect on the Company's operations and financial position in 2009 and beyond, if we are unable to pass through any increases.

## **Liquidity and Capital Resources**

Our cash, cash equivalents and short-term investments amounted to \$3,020,421 on September 30, 2009, compared to \$7,631,957 on December 31, 2008 and \$8,969,569 on September 30, 2008. On June 30, 2008, we reclassified our auction rate securities in the amount of \$6 million from current to long-term investments. Additional discussion on these auction rate securities (ARS) is below. The net cash used in our operating activities was \$2,839,057 for the nine months ended September 30, 2009, compared to \$1,329,164 for the same period in 2008, which is a direct result of a significant decrease in revenue (approximately \$3.3 million), partially offset by certain cost savings initiatives described previously. Net cash provided by investing activities, which is due to maturities of securities and to a lesser extent capital expenditures offset partially by purchases of securities, amounted to \$4,874,876 for the nine months ended September 30, 2009 compared to \$1,377,168 for the same period in 2008. Capital expenditures amounted to \$141,037 and \$405,118 for the nine months ended September 30, 2009 and 2008, respectively. Net cash used in financing activities is due to principal payments on an equipment loan from BYK-Chemie and capital lease obligations amounting, in total, to \$1,617,635 for the nine months ended September 30, 2009 compared to \$1,550 of net cash provided primarily by the issuance of shares of common stock pursuant to the exercise of options for the same period in 2008.

On July 2, 2007, we issued and sold 1,900,000 shares of common stock pursuant to a registration statement filed on May 22, 2007 and declared effective by the SEC on May 31, 2007 to certain institutional investors at a purchase price of \$5.92 per share, for an aggregate purchase price of \$11.2 million and net proceeds of approximately \$10.5 million.

Our supply agreement with our largest customer contains several financial covenants which could potentially impact our liquidity. The most restrictive financial covenants under this agreement 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 transfer of certain technology and sale of related equipment to this customer. It is, of course, in our best interest to avoid such a transfer. We had approximately \$3 million in cash, cash equivalents and current investments (excluding ARS) on September 30, 2009. In addition, we had a gross value of \$6 million of ARS, \$5.3 million net of impairment on investments, as of that date that could be sold at a discount or used to obtain funding. Indeed more than \$1.7 million of proceeds were received during the fourth quarter 2009, as discussed below. Our debt position renders the acceleration issue inapplicable to our current situation; indeed we became debt-free when our final loan payment was made during July 2009. This supply agreement and its covenants are more fully described in Note (8) to our Financial Statements.

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For many reasons, our cash position has decreased significantly during the past year. Customers have more aggressively reduced their inventories, which has decreased our order flow. We have started to see this pattern reverse slightly, but customers remain very concerned about managing inventory levels. We have also seen certain customers more inclined to focus on cost than performance, which has impeded new formulation development that may include our materials, as well as pressure on existing customers to reduce the amount of material purchased from us in an attempt to control short term costs. In addition, we have expended significant efforts in trying to qualify for new markets. While we believe this to be the right course of action for future revenue growth, the early stages of this process tend to result in trial activity, which we expect to become commercial revenue over time. Some industries require two or more years of qualification prior to potential acceptance. For this reason we have begun the qualification process with several potential customers in a number of industries, and continue to look for market applications for which we can begin this qualification process. There can be no assurance that we will be successful in our qualification efforts, or that such efforts will result in increased Company revenues. We have also repaid \$1.6 million in debt during 2009, with our final payment made in July 2009. While these payments have reduced our cash position, they have left us debt-free as of July 2009, and the lack of these payments in the future will reduce the related cash outflows we experienced during 2009.

We adapted our business during the past twelve months by reducing work force and overhead to be more lean and efficient. This has reduced the cost of running our business, and will be even more apparent once severance payments have concluded (see footnote 10 on severance). This cost reduction has helped us withstand the drop in our commercial revenue, and we expect will help optimize our financial performance with increases in revenue that we expect.

We believe that cash from operations, cash and equivalents and investments on hand, including the value of the ARS portfolio, will be adequate to fund our operating plans through 2010. The Company's actual future capital requirements in 2009 and beyond will depend, however, on many factors, including customer acceptance of our current and potential nanomaterials and product applications, continued progress in our 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 business growth with existing customers. We expect that capital spending relating to currently known capital needs for the remainder of 2009 will be less than \$50,000.

Subsequent to the reporting date, during October 2009 we sold the Connecticut Student Loan Foundation bond (see Note 5) pursuant to a reverse auction tender offer initiated by the Connecticut Student Loan Foundation. Our net proceeds were in excess of \$1.7 million, which will be reflected in our cash balance as of December 31, 2009. We are seeking the difference between the net proceeds and the \$2 million par value as part of our damages in the FINRA claim against Credit Suisse noted above. This information will be considered as we perform a re-valuation of our ARS portfolio during the fourth quarter 2009.

As of November 2009, our remaining investments in ARS totaled \$3.62 million, net of impairment charge. These ARS holdings in the Company's investment portfolio have experienced failed auctions due to a lack of available buyers for them on their expected auction dates. An auction failure means that parties wishing to sell their securities could not be matched with an adequate volume of buyers. In the event there is a failed auction the indenture governing the security requires the issuer to pay interest at a contractually defined rate. Despite these failed auctions, there have been no defaults on the underlying securities and investment income on these ARS holdings. They have been issued through the Federal Family Education Loan Program and carry an AAA credit rating. These FFELPs Loans are guaranteed to 97% of their \$4 million value by the Department of Education. However, these failed auctions have caused us to change the level of inputs to determine their fair values. These values were estimated as of December 31, 2008 by an independent appraisal firm, Houlihan, Smith & Company, Inc., using a discounted cash flow model. Since these inputs were not observable they are classified as Level 3 inputs (see Note 4). As a result, for the period ended December 31, 2008, we recognized an other than

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temporary impairment loss on the ARS in the amount of \$660,000, thus reducing the \$6 million in nominal value to \$5.34 million in net carrying value. We believe that the fair value estimates made for the year ended December 31, 2008 have not changed through September 30, 2009, and therefore, no changes to the carrying value of these investments have been made. We will continue to monitor the creditworthiness of the companies underwriting these securities and make any adjustments we deem necessary to reflect the fair value of these securities.

It is our intention to sell these instruments for as close to their \$4 million value as possible as soon as we are able to do so. However, because we cannot ascertain when we may ultimately sell these instruments, and they have nominal maturity in excess of one year, we have classified these securities as long-term on the September 30, 2009 balance sheet.

In addition, pursuant to the applicable rules of FINRA, we recently filed an arbitration demand against Credit Suisse, the Company's investment advisor with respect to our ARS investments. The arbitration demand alleges that Credit Suisse misrepresented to us that ARS were safe, liquid, short-term investments which were equivalent to cash or money market investments. Through the arbitration, we seek recovery of the reduced value of our ARS investments and other damages arising from the misrepresentation. The hearing on our arbitration has been scheduled for April 10, 2010.

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 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 agreement; or various other circumstances coming to pass that are currently not anticipated by the Company.

On September 30, 2009, we had a net operating loss carryforward of approximately \$81.5 million for income tax purposes. Because the Company may have experienced ownership changes within the meaning of the U.S. Internal Revenue Code in connection with its 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 the carryforward expired in 2008 and another is expected to expire in 2009. If not utilized, the remaining carryforward will expire at various dates between January 1, 2010 and December 31, 2028. 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.

## **Off Balance Sheet Arrangements**

The Company has not created, and is 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. Overall the liquidity shortage in the marketplace includes Auction Rate Securities. We believe we have sufficient liquidity from cash and investment accounts to satisfy 2010 operational needs. See Notes (4) and (5) in the Notes to Financial Statements and the disclosure on Liquidity and Capital Resources in Management's Discussion and Analysis for a further discussion of liquidity issues.

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### **Safe Harbor Provision**

Nanophase wants to provide investors with 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 the Company's current expectations of the future results of its operations, performance and achievements. Forward-looking statements are covered under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. The Company has 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 the Company's actual results, performance or achievements in 2009 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 the Company's dependence on a limited number of key customers; uncertain demand for, and acceptance of, the Company's nanocrystalline materials; the Company's limited manufacturing capacity and product mix flexibility in light of customer demand; the Company's limited marketing experience; changes in development and distribution relationships; the impact of competitive products and technologies; the Company's dependence on patents and protection of proprietary information; and the resolution of litigation in which the Company may become involved. Readers of this 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 4T. 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 September 30, 2009 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.



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**PART II OTHER INFORMATION**

**Item 1. Legal Proceedings**

As first discussed above in Note (5), pursuant to the applicable rules of FINRA, we recently filed an arbitration demand against Credit Suisse, the Company's investment advisor with respect to our ARS investments. The arbitration demand alleges that Credit Suisse misrepresented to us that ARS were safe, liquid, short-term investments which were equivalent to cash or money market investments. Through the arbitration, we seek recovery of the reduced value of our ARS investments and other damages arising from the misrepresentation. The hearing on our arbitration has been scheduled for April 10, 2010.

**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 4. Submission of Matters to a Vote of Security Holders**

None.

**Item 5. Other Information**

None.

**Item 6. Exhibits**

Exhibit 10.1*	Employment Agreement effective August 12, 2009 between the Company and Jess Jankowski, incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q filed August 12, 2009.
Exhibit 23.1	Consent of Houlihan Smith & Company Inc., dated October 28, 2009.
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.

\* Management contract or compensatory plan or arrangement.

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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: November 9, 2009

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

Date: November 9, 2009

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