Table of Contents

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, 2005

Commission File Number: 0-22333

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 is an accelerated filer (as defined in Rule 12b-2 of the Exchange Act). Yes ☒ No ☐

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

On November 7, 2005, there were outstanding 17,976,592 shares of common stock, par value $.01, of the registrant.

NANOPHASE TECHNOLOGIES CORPORATION

QUARTER ENDED September 30, 2005

INDEX

		Page
PART I	FINANCIAL INFORMATION	3
Item 1.	Financial Statements	3
	Unaudited Balance Sheets on September 30, 2005 and December 31, 2004	3
	Unaudited Statements of Operation for the three months ended September 30, 2005 and 2004 and the nine months ended September 30, 2005 and 2004.	4
	Unaudited Statements of Cash Flows for the nine months ended September 30, 2005 and 2004	5
	Notes to Unaudited Financial Statements	6
Item 2.	Management's Discussion and Analysis of Financial Condition and Results of Operations	10
Item 3.	Quantitative and Qualitative Disclosures About Market Risk	24
Item 4.	Controls and Procedures	24
PART II	OTHER INFORMATION	25
Item 1.	Legal Proceedings	25
Item 5.	Other Information	25
Item 6.	Exhibits and Reports on Form 8-K	25
SIGNATURES		26

Table of Contents

PART I—FINANCIAL INFORMATION

Item 1. Financial Statements

NANOPHASE TECHNOLOGIES CORPORATION
BALANCE SHEETS
(Unaudited)

	September 30, 2005	December 31, 2004
ASSETS		
Current assets:		
Cash and cash equivalents	$ 259,164	$ 475,185
Investments	8,284,208	11,155,126
Trade accounts receivable, less allowance for doubtful accounts of $24,271 on September 30, 2005 and December 31, 2004, respectively	972,299	792,662
Other receivable, net	—	3,498
Inventories, net	875,857	837,336
Prepaid expenses and other current assets	243,385	499,697
Total current assets	10,634,913	13,763,504
Equipment and leasehold improvements, net	6,849,774	7,457,764
Other assets, net	626,696	571,027
	$ 18,111,383	$ 21,792,295
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Current portion of long-term debt	$ 141,449	$ 579,472
Current portion of capital lease obligations	—	11,826
Accounts payable	464,917	324,485
Accrued expenses	1,190,104	894,022
Total current liabilities	1,796,470	1,809,805
Long-term debt, less current maturities	94,300	—
Total long-term debt	94,300	—
Contingent liabilities:	—	—
Stockholders' equity:		
Preferred stock, $.01 par value, 24,088 shares authorized and no shares issued and outstanding	—	—
Common stock, $.01 par value, 25,000,000 shares authorized; 17,972,592 and 17,895,482 shares issued and outstanding on September 30, 2005 and December 31, 2004, respectively	179,726	178,955
Additional paid-in capital	72,263,127	71,987,565
Accumulated deficit	(56,222,240)	(52,184,030)
Total stockholders' equity	16,220,613	19,982,490
	$ 18,111,383	$ 21,792,295

See Notes to Financial Statements.

Table of Contents

NANOPHASE TECHNOLOGIES CORPORATION
STATEMENTS OF OPERATIONS
(Unaudited)

	Three months ended September 30,		Nine months ended September 30,	
	2005	2004	2005	2004
Revenue:				
Product revenue, net	$ 1,579,552	$ 1,144,010	$ 5,105,312	$ 3,497,999
Other revenue	95,062	233,108	267,409	714,547
Total revenue	1,674,614	1,377,118	5,372,721	4,212,546
Operating expense:				
Cost of revenue	1,466,790	1,311,622	4,505,554	3,952,908
Research and development expense	486,346	437,941	1,457,026	1,389,638
Selling, general and administrative expense	1,043,907	1,024,581	3,381,243	3,187,758
Lease accounting adjustment	279,810	—	279,810	—
Total operating expense	3,276,853	2,774,144	9,623,633	8,530,304
Loss from operations	(1,602,239)	(1,397,026)	(4,250,912)	(4,317,758)
Interest income	73,054	51,600	209,471	108,386
Interest expense	(5,309)	(16,266)	(26,022)	(60,892)
Other, net	(213)	(289,080)	29,253	(288,320)
Loss before provision for income taxes	(1,534,707)	(1,650,772)	(4,038,210)	(4,558,584)
Provisions for income taxes	—	(7,500)	—	(22,500)
Net loss	$ (1,534,707)	$ (1,658,272)	$ (4,038,210)	$ (4,581,084)
Net loss per share—basic and diluted	$ (0.09)	$ (0.09)	$ (0.23)	$ (0.27)
Weighted average number of common shares outstanding	17,954,371	17,572,006	17,925,256	17,054,946

See Notes to Financial Statements.

Table of Contents

NANOPHASE TECHNOLOGIES CORPORATION
STATEMENTS OF CASH FLOWS
(Unaudited)

	Nine months ending September 30,	
	2005	2004
Operating activities:		
Net loss	$ (4,038,210)	$ (4,581,084)
Adjustment to reconcile net loss to net cash (used in) operating activities:		
Depreciation and amortization	940,933	1,048,293
Stock compensation expense	43,150	—
Allowance for excess inventory quantities	(14,163)	(4,060)
Equipment write-off	41,784	—
Changes in assets and liabilities related to operations:		
Trade accounts receivable	(523,360)	54,635
Other receivable	3,498	21,348
Inventories	(24,358)	(87,137)
Prepaid expenses and other assets	256,312	404,964
Accounts payable	199,754	116,609
Accrued liabilities	291,462	91,871
Net cash (used in) operating activities	(2,823,198)	(2,934,561)
Investing activities:		
Acquisition of equipment and leasehold improvements	(405,346)	(299,411)
Acquisition of patents	(79,752)	(120,584)
Purchases of held-to-maturity investments	(140,113,213)	(193,047,606)
Maturities of held-to maturity investments	142,984,131	184,297,137
Net cash provided by (used in) investing activities	2,385,820	(9,170,464)
Financing activities:		
Principal payment on debt obligation, including capital leases	(11,826)	(427,844)
Proceeds from sale of common stock, net, and exercise of stock options	233,183	12,692,883
Net cash provided by financing activities	221,357	12,265,039
(Decrease) increase in cash and cash equivalents	(216,021)	160,014
Cash and cash equivalents at beginning of period	475,185	399,999
Cash and cash equivalents at end of period	$ 259,164	$ 560,013
Supplemental cash flow information:		
Interest paid	$ 26,022	$ 60,892
Income taxes paid	$ —	$ 30,000
Supplemental non-cash investing and financing activities:		
Accounts receivable paid through offset of long-term debt	$ 343,723	$ 229,959
Accounts payable incurred for the purchase of equipment and leasehold improvements	$ 59,322	$ 222,618

See Notes to Financial Statements.

NANOPHASE TECHNOLOGIES CORPORATION

NOTES TO FINANCIAL STATEMENTS
(Unaudited)

(1) Basis of Presentation

The accompanying unaudited interim financial statements of Nanophase Technologies Corporation (the "Company") 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, 2005 are not necessarily indicative of the results that may be expected for the year ended December 31, 2005.

These financial statements should be read in conjunction with the Company's audited financial statements and notes thereto for the year ended December 31, 2004, included in the Company's Annual Report on Form 10-K for the year ended December 31, 2004, as filed with the Securities and Exchange Commission.

(2) Description of Business

The Company was incorporated on November 30, 1989, for the purpose of developing nanocrystalline materials for commercial production and sale in domestic and international markets.

Nanophase Technologies is a nanocrystalline materials developer and commercial manufacturer with an integrated family of nanomaterial technologies. Nanophase produces engineered nanomaterials for use in a variety of diverse existing and developing markets: personal care, sunscreens, abrasion-resistant applications, environmental catalysts, antimicrobial products and a variety of polishing applications, including semiconductors and optics. New markets and applications also are being developed. The Company targets markets in which it feels practical solutions may be found using nanoengineered products. The Company works with leaders in these target markets to identify and supply their material and performance requirements.

The Company also recognizes regular revenue from a technology license. This activity is not expected to drive the long-term growth of the business. License revenue is recognized as "other revenue" in the Company's Statement of Operations, as it does not represent revenue directly from the Company's nanocrystalline materials.

(3) Inventories

Inventories consist of the following:

	September 30, 2005	December 31, 2004
Raw materials	$ 414,519	$ 391,346
Finished goods	1,052,720	1,051,535
	1,467,239	1,442,881
Allowance for excess inventory quantities	(591,382)	(605,545)
	$ 875,857	$ 837,336

(4) Employee Stock Options, Warrants and Stock Grants

During the nine months ended September 30, 2005, 77,110 shares of Common Stock were issued pursuant to option exercises compared to 283,526 shares in the same period in 2004. During the nine months ended September 30, 2005 and 2004 there were no warrants outstanding. In September 2004, 453,001 warrants were converted into Common Stock.

As permitted by Statement of Financial Accounting Standards No. 123 “Accounting for Stock-Based Compensation” (FASB 123), the Company accounts for stock options granted to employees in accordance with APB Opinion No. 25, “Accounting for Stock Issued to Employees” (APB No. 25). As long as the exercise price of the options granted equals the estimated fair value of the underlying stock on the measurement date, no compensation expense is recognized by the Company for these options. FASB 123 established an alternative fair value method of accounting for stock-based compensation plans. As required by FASB 123 for companies using APB No. 25 for financial reporting purposes, the Company makes pro forma disclosures regarding the impact on net loss of using the fair value method of FASB 123.

Pro forma information regarding net income is required by FASB 123, which also requires that the information be determined as if the Company had accounted for the employee stock options granted subsequent to December 31, 1994 under the fair value method of that Statement. The fair value for these options was estimated at the date of grant using a Black-Scholes option pricing model with the following assumptions for the three and nine months ended September 30, 2005 and 2004. For the nine months ended September 30, 2005, 100,000 shares of stock options were granted.

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

	Three months ended		Nine months ended	
	September 30, 2005	September 30, 2004	September 30, 2005	September 30, 2004
Weighted-average risk-free interest rate:	4.21%	3.75%	4.21%	3.75%
Dividend yield:	0.00%	0.00%	0.00%	0.00%
Weighted-average expected life of the option:	7 years	7 years	7 years	7 years
Weighted-average expected stock price volatility:	78.72%	63.02%	78.72%	81.81%
Weighted-average fair value of the options granted:	$ 4.90	N/A	$ 4.90	N/A

For purposes of the pro forma disclosures, the estimated fair value of the options is amortized to expense over the vesting period of the respective option. Because FASB 123 is applicable only to options granted subsequent to

December 31, 1994, its pro forma impact was not fully reflected until 2002. The pro forma impact for the three and nine months ended September 30, 2005 and 2004 shown is meant to approximate the effects of the expensing of stock options.

The following table illustrates the effect on net loss and loss per share had compensation cost for all of the stock-based compensation plans been determined based on the grant date fair values of awards (the method described in FASB 123):

	Three months ended		Nine months ended	
	September 30, 2005	September 30, 2004	September 30, 2005	September 30, 2004
Net Loss as reported:	$(1,534,707)	$(1,658,272)	$(4,038,210)	$(4,581,084)
Deduct total stock-based employee compensation expense determined under fair value based method for all awards	(115,122)	(178,233)	(349,126)	(631,216)
Pro forma net loss	(1,649,829)	(1,836,505)	(4,387,336)	(5,212,300)
Loss per share:				
Basic - As reported	(0.09)	(0.09)	(0.23)	(0.27)
Basic – Pro forma	(0.09)	(0.10)	(0.24)	(0.31)
Diluted – As reported	(0.09)	(0.09)	(0.23)	(0.27)
Diluted – Pro forma	(0.09)	(0.10)	(0.24)	(0.31)

On September 27, 2005, the Company granted 33,333 shares of restricted stock rights at market value consisting of 16,666 restricted share rights and 16,667 performance share rights respectively. The restricted share rights vest in lump sum or “cliff vest” on September 27, 2008, provided that the grantee has not terminated service prior to the vesting date. The performance share rights also vest in lump sum or “cliff vest” upon achievement of certain performance goals or milestones on or before January 30, 2009, provided that the grantee has not terminated service prior to the vesting date.

(5) Significant Customers and Contingencies

Revenue from three customers constituted approximately 74%, 12% and 4% for the three months ended September 30, 2005, compared to 76%, 5% and 4% of the Company’s total revenue for the nine months ended September 30, 2005. Amounts included in accounts receivable at September 30, 2005 relating to these three

customers were approximately $481,000, $195,000 and $225,000, respectively. Revenue from these three customers constituted approximately 63%, 13% and 5% of the Company's total revenue for the three months ended September 30, 2004, compared to 71%, 12% and 6% for the nine months ended September 30, 2004. Amounts included in accounts receivable on September 30, 2004 relating to these three customers were approximately $430,000, $176,000 and $225,000, respectively.

The Company currently has supply agreements with BASF Corporation ("BASF"), the Company's largest customer, and Rohm and Haas Electronic Materials CMP, Inc. ("RHEM"), 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 the Company's failure to meet certain performance requirements and/or certain financial condition covenants. The financial condition covenants in the Company's supply agreement with its largest customer, as amended, "triggers" a technology transfer (license or, optionally, an equipment sale) in the event (a) that earnings of the Company for a twelve month period ending with its most recently published quarterly financial statements are less than zero and its cash, cash equivalents and 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) of the Company's 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.

The Company believes that it has sufficient cash and investment balances to avoid the first triggering event for the foreseeable future. If a triggering event were to occur and BASF elected to proceed with the license and related sale mentioned above, the Company would receive royalty payments from this customer for products sold using the Company's technology; however, the Company 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 the Company's agreement with the customer. Such an event would also result in the loss of many of the Company's key staff and line employees due to economic realities. The Company believes that its employees are a critical component of its success and could be difficult to replace and train quickly. Given the occurrence of such an event, the Company might not be able to hire and retain skilled employees given the stigma relating to such an event and its impact on the Company.

In February of 2004, the Company amended its original agreement with Rohm and Haas Electronic Materials CMP, Inc. ("RHEM," formerly known as Rodel, Inc). This amendment allows for RHEM to maintain exclusivity based upon it purchasing lower dollar amounts of nanocrystalline materials, while extending the agreement through 2009. This amendment did not require RHEM to purchase any materials from the Company in 2004, but, in lieu of materials purchased it did require an aggregate of $600,000 be paid to Nanophase in four equal quarterly installments in 2004 to support on going efforts in joint slurry product development during 2004. This $600,000 was fully earned in 2004.

(6) Business Segmentation and Geographical Distribution

Revenue from international sources approximated $734,000 and $561,000 for the nine months ended September 30, 2005 and 2004, respectively. As part of its revenue from international sources, the Company recognized approximately $431,000 in product revenue from several German companies and $225,000 in other revenue from a technology license fee from its Japanese licensee for the nine months ended September 30, 2005 compared to $272,000 and $248,000 (which included some purchased supplies) for the same period in 2004, respectively.

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

(7) Administrative Actions

On February 23, 2004, an unidentified party filed a Petition to Request a Reexamination of US Patent No. 6,669,823 B1 in the U.S. Patent and Trademark Office, or USPTO. US Patent No. 6,669,823 B1 relates to certain parts of one of the Company's nanoparticle manufacturing processes, NanoArc Synthesis. The Company subsequently received notice that the USPTO had granted the Request for Reexamination. The reexamination process is provided for by law and requires the USPTO to consider the scope and validity of the patent based on substantial new questions of patentability raised by a third party or the USPTO. On September 7, 2005, the Company's representatives conducted an interview with the Examiner assigned to the Reexamination at the USPTO, resulting in the Examiner preparing an interview summary indicating that the Examiner agreed all the issued claims were patentable. However, prior to the USPTO issuing a formal notice confirming patentability, the same unidentified party referenced above filed a second Petition to Request Reexamination of the patent. Because Nanophase believes that the scope and validity of the patent claims in this patent are appropriate and that the USPTO's prior issuance of the patent was correct, the Company will continue to vigorously defend its patent position. It is not feasible to predict whether the Company ultimately will succeed in maintaining the scope and validity of all the claims of this patent during reexamination. If the patent claims in this patent ultimately are narrowed substantially by the USPTO, the patent coverage afforded to certain parts of the Company's NanoArc Synthesis nanoparticle manufacturing process could be impaired, which could impede the extent of Nanophase's legal protection of the invention that is subject to this patent and potentially harm its business and operating results.

(8) Lease Accounting Adjustment

Along with many other companies with leased properties, Nanophase has recently reviewed its policies with respect to leasing transactions. Following this review, the Company has corrected an error in its prior accounting practices to conform the lease term used in calculating straight-line rent expense with the useful lives used to amortize improvements on leased property. The result of this correction is primarily to accelerate the recognition of rent expense under its lease for the Romeoville headquarters that includes fixed rent escalations by revising the computation of straight-line rent expense to include these escalations for certain option periods. As the correction relates solely to accounting treatment, it has no effect on Nanophase's historical or future cash flows or the timing of payments under the related lease. Had the Company, from the inception of the lease in June 2000, correctly calculated its straight-line rent expense, the effect would have been an increase in rent of approximately $13,220 per quarter. This quarterly effect, and the annualized effect, of this adjustment is immaterial to the Company's current or prior year's earnings per share or shareholders' equity. The total amount of this expense was $279,810 and has been expensed in the three month period ended September 30, 2005.

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

Overview

Nanophase Technologies is a nanocrystalline materials developer and commercial manufacturer with an integrated family of nanomaterial technologies. Nanophase produces engineered nanomaterials for use in a variety of diverse markets: sunscreens, personal care, abrasion-resistant applications, environmental catalysts, antimicrobial products and a variety of polishing applications, including semiconductors and optics. The Company targets markets in which it feels practical solutions may be found using nanoengineered products. The Company works closely with leaders in these target markets to identify their material and performance requirements. Newer developed technologies have made certain new products possible and opened potential new markets. With the commercialization of the Company's NanoArc™ synthesis and new dispersion technologies in 2002, and the expansion of these capabilities in 2003 and 2004, Nanophase is focusing on penetrating the chemical-mechanical-planarization ("CMP") and fine polishing markets. CMP is the process of polishing various types of integrated circuits or chips to be used in various commercial electronics applications. Management believes that the Company's inroads in the CMP and fine polishing markets would have been very difficult without the Company being able to produce its materials to exacting

specifications verified by in-house and customer-based testing. Management expects growth in end-user (customers of Nanophase's customers) adoption in 2005 and revenue growth beginning in 2005 in both of these areas. Additionally, the Company feels that its exclusive relationship with Altana Chemie ("Altana"), a global ingredients supplier to various coatings industries, will lead to growth in several of its abrasion-resistant applications in the marketplace. Nanophase shipped initial quantities of material to Altana in the second, third and fourth quarters of 2004, and also in the first, second and third quarters of 2005. Management expects this relationship to continue to develop through the balance of 2005 and, to a greater extent, in 2006. In May of 2005, BASF announced the introduction of a new coated sunscreen material. This material incorporated a new coating developed by Nanophase which, management believes, should help to expand sales in the European and Asian markets beginning in 2006.

From its inception in November 1989 through December 31, 1996, the Company was in the development stage. During that period, the Company primarily focused on the development of its manufacturing processes in order to transition from laboratory-scale to commercial-scale production. As a result, the Company developed an operating capacity to produce significant quantities of its nanocrystalline materials for commercial sale. The Company was also engaged in the development of commercial applications and formulations and the recruiting of marketing, technical and administrative personnel. Since January 1, 1997, the Company has been engaged in commercial production and sales of its nanocrystalline materials, and the Company no longer considers itself in the development stage. From inception through September 30, 2005, the Company was primarily capitalized through the private offering of approximately $32.0 million of equity securities prior to its initial public offering, its initial public offering of $28.8 million of common stock in November of 1997, its private offering of $6.2 million of common stock in May of 2002, its private offering of $1.95 million of common stock in September of 2003, its equity investment of $9.2 million in March 2004 and its private offering of $1.95 million of common stock in September of 2004 (through the conversion of warrants that were attached to its September 2003 offering), each net of issuance costs. The Company has incurred cumulative losses of $56.2 million from inception through September 30, 2005.

Pending Accounting Standards

See the Company's 2004 10-K for a more detailed discussion regarding adoption of SFAS 123R. On April 14, 2005, the SEC announced it would permit most registrants subject to its oversight, additional time to implement the requirements in FASB Statement No. 123 (Revised 2004), Share-Based Payment. As originally issued by the FASB, public companies subject to SEC oversight were required to implement Statement 123R as of the beginning of the first interim or annual reporting period that begins after June 15, 2005, or after December 15, 2005 for small business issuers. As announced, the SEC will permit companies to implement Statement 123R at the beginning of their next fiscal year, instead of the next reporting period as required by Statement 123R. SFAS 123R will be effective for Nanophase for the first fiscal quarter ending March 31, 2006, beginning on January 1, 2006. The Company is in the process of evaluating the impact of adopting SFAS 123R and of determining the impact on our results of operations or financial position.

Results of Operations

Total revenue increased to $1,674,614 and $5,372,721 for the three and nine months ended September 30, 2005, compared to $1,377,118 and $4,212,546 for the same period in 2004. A substantial majority of the Company's revenue for the three and nine months ended September 30, 2005 is from the Company's largest customer. See Note 5 to the Financial Statements for additional information regarding the revenue the Company derived from this customer for the three and nine months ended September 30, 2005. Product revenue increased to $1,579,552 and $5,105,312 for the three and nine months ended September 30, 2005, compared to $1,144,010 and $3,497,999 for the same period in 2004. The increase in product revenue was primarily attributed to increased sales of sunscreen and personal care materials to BASF, the Company's largest customer, a new customer for application in medical devices in the second quarter of 2005 and increased sales of CMP materials to Rohm and Haas Electronic Materials CMP, Inc. ("RHEM," formerly known as Rodel, Inc.). The Company and its largest customer currently have a technology agreement in place to jointly develop the second generation of sunscreen nanomaterials for other potential personal care applications. Management anticipates the launch of one or more new sunscreen or personal care applications in the near future, with related revenue to begin building in 2006.

Other revenue decreased to $95,062 and $267,409 for the three and nine months ended September 30, 2005, compared to $233,108 and $714,547 for the same period in 2004. This decrease was primarily attributed to no technology payments being received during the period ended September 30, 2005, compared to $450,000 for the same period in 2004 from RHEM. These payments from RHEM were part of its $600,000 commitment in 2004 as described below which was amended for 2005.

In February of 2004, the Company amended its original agreement with RHEM. This amendment allows for RHEM to maintain exclusivity based upon it purchasing lower dollar amounts of nanocrystalline materials, while extending the agreement through 2009. This amendment did not require RHEM to purchase any materials from the Company in 2004, in lieu of materials purchased, it did require an aggregate of $600,000 be paid to Nanophase in four equal quarterly installments in 2004 to support on going efforts in joint slurry product development with RHEM during 2004. (See Note 5 to the financial statements) In October of 2004, the Company amended its original agreement with RHEM a second time. This amendment reduced the minimum purchase requirements necessary to maintain the Company's exclusivity obligations to RHEM by approximately 44% during 2005. The reduction reflects the parties' recognition of the difficulty in precisely estimating the timing of product development and sales in the semiconductor polishing market.

The majority of the total revenue generated during the period ended September 30, 2005 was from the Company's largest customer in the healthcare (sunscreens) market and its new customer (second largest customer in the second quarter of 2005) for application in medical devices as described above.

Cost of revenue generally includes costs associated with commercial production and customer development arrangements. Cost of revenue increased to $1,466,790 and $4,505,554 for the three and nine months ended September 30, 2005, compared to $1,311,622 and $3,952,908 for the same period in 2004. The increase in cost of revenue was generally attributed to increased revenue volume somewhat offset by decreases in depreciation and the Company's continued efficiencies in reducing its variable manufacturing costs on nanomaterials. Improvements to gross margins were primarily due to increased revenue volume, favorable product mix and the completion of a series of process improvements that had targeted to increase PVS reactor output by 20-30% in conjunction with a re-engineering program that had reduced the expected operational labor cost by 25% on high volume PVS-produced nanomaterials. Nanophase expects to maintain an aggressive schedule for new nanomaterial development, primarily using its NanoArc™ synthesis and dispersion technologies, for targeted applications and new markets throughout 2005. At current revenue levels the Company has generated a modest positive gross margin. The Company's margins have been impeded by not having enough revenue to absorb the manufacturing overhead that is required to work with current customers and the new ones the Company expects to have. Management believes that the current fixed manufacturing cost structure is sufficient to support significantly higher levels of production and resultant product revenue. The extent to which the Company's margins remain positive, as a percentage of total revenue, will be dependent upon revenue mix, revenue volume and the Company's ability to continue to cut costs. As product revenue volume increases, this will result in more of the Company's fixed manufacturing costs being absorbed, leading to increased margins. The Company expects to continue reducing its variable product manufacturing costs in 2005 but may or may not continue to operate at a positive gross margin in 2005, 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 Company's development or acquisition of new product applications and coating formulations and the cost of enhancing the Company's manufacturing processes. The May 2005 roll-out of BASF's new sunscreen was an example of this work. In another example, the Company has been and continues to be engaged in research to enhance its ability to disperse its material in a variety of organic and inorganic media for use as coatings and polishing materials. Much of this work has led to new potential products for use by Altana. Now that the Company has demonstrated the capability to produce pilot quantities of mixed-metal oxides in a single crystal phase, the Company does 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. This development has been driven largely by customer demand. Management is now working on several related commercial applications. The Company expects that this technique should not be difficult to scale to large quantity commercial volumes once application viability and firm demand are established. The Company also has an ongoing advanced engineering effort that is primarily focused on the development of new nanomaterials as well as the refinement of existing nanomaterials. The Company is 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 $486,346 and $1,457,026 for the three and nine months ended September 30, 2005, compared to $437,941 and $1,389,638 for the same period in 2004. The increase in research and development expense was largely attributed to salary expenses. The Company does not expect research and development expense to increase significantly in 2005.

Selling, general and administrative expense increased to $1,043,907 and $3,381,243 for the three and nine months ended September 30, 2005, compared to $1,024,581 and $3,187,758 for the same period in 2004. The net increase was primarily attributed to increases in compensation, audit fees and consulting expenses. These increases were partially offset by decreases in legal fees, directors and officers and business insurance expenses.

There was a lease accounting adjustment of $279,810 for the three and nine months ended September 30, 2005. This charge was due to the Company correcting an error in its prior accounting practices to conform the lease term used in calculating straight-line rent expense with the useful lives used to amortize improvements on leased property. See Note 8 to the Financial Statements for additional information.

Interest income increased to $73,054 and $209,471 for the three and nine months ended September 30, 2005, compared to $51,600 and $108,386 for the same period in 2004. These increases were primarily due to an increase of funds available for investment, largely composed of the March 23, 2004 equity investment from Altana which resulted in net proceeds of approximately $9.2 million, along with increased investment yields in 2005.

Other expenses decreased to $213 for the three months ended September 30, 2005, compared to $289,080 for the same period in 2004. Other income increased to $29,253 for the nine months ended September 30, 2005, compared to $288,320 of other expenses for the same period in 2004. The decreases were primarily due to the Company taking a one-time charge in the amount of $279,000 for accounting and legal costs associated from the withdrawal of the Company's universal shelf registration in August 2004.

Liquidity and Capital Resources

The Company's cash, cash equivalents and investments amounted to $8,543,372 on September 30, 2005, compared to $11,630,311 on December 31, 2004. The net cash used in the Company's operating activities was $2,823,198 for the nine months ended September 30, 2005, compared to $2,934,561 for the same period in 2004. Net cash provided by investing activities, which is due to sales of securities and partially offset by purchases of securities and capital expenditures, amounted to $2,385,820 for the nine months ended September 30, 2005 compared to $9,170,464 of net cash used in investing activities for the same period in 2004. Capital expenditures amounted to $405,346 and $299,411 for the nine months ended September 30, 2005 and 2004, respectively. During the second quarter in 2005 the Company completed implementation of a PVS process innovation started in late 2003, within the current capital budget, that is expected to increase PVS reactor output by approximately 20%-30% in conjunction with a re-engineering program that had reduced the expected operational labor cost by 25% on high volume PVS-produced nanomaterials. The Company expects that this innovation should result in the need for less future capital as the Company's PVS reactor-produced business grows. Currently, all sunscreen and personal care nanomaterials are manufactured via the PVS process. Net cash provided by financing activities is primarily due to the issuance of shares of common stock pursuant to the exercise of options, partially offset by principal payments on debt and capital lease obligations, amounting, in total, to $221,357 for the nine months ended September 30, 2005. Net cash provided by financing activities was primarily due to the Company securing financing through an equity investment in March 2004 and, to a lesser extent, by the issuance of shares of common stock pursuant to the exercise of warrants and options, partially offset by principal payments on debt and capital lease obligations, amounting, in total, to $12,265,039 for the same period in 2004.

On November 3, 2005, BYK-Chemie USA, a customer of Nanophase, loaned $1,597,420 to Nanophase pursuant to the terms of a Promissory Note dated effective October 24, 2005. The proceeds of the Promissory Note are to be used to buy, install and commission certain equipment which is then to be used for fulfillment of orders by BYK-Chemie USA and other uses. The outstanding principal balance of the Promissory Note is payable in three equal installments on January 30, 2009, April 30, 2009 and December 31, 2009. Interest accrues and is payable on a quarterly basis one year after the equipment referenced above is installed at the rate of 100 basis points over the average daily London Inter-Bank Offered Rate for the preceding quarter.

On March 23, 2004, the Company sold, in a private placement to Altana Chemie AG ("Altana"), 1,256,281 shares of common stock at $7.96 per share and received gross proceeds of $10.0 million. On January 22, 2004, the Company filed a universal shelf registration statement with the Securities and Exchange Commission to allow Nanophase to offer up to $15.0 million of Nanophase securities, in the form of common stock or various types of debt securities, in the future. In August 2004, the Company withdrew its universal shelf offering due to unfavorable market conditions and the Company's adequate cash position to cover expected growth through 2006. The Company incurred expenses in 2004 relating to the filing and subsequent withdrawal of its universal shelf offering of approximately $279,000. On September 8, 2003, the Company secured equity funding through a private placement offering with Grace Brothers, Ltd., its largest investor. The Company issued 453,001 shares of additional common stock at $4.415 per share and received gross proceeds of $2.0 million. Grace Brothers, Ltd. also had the right to purchase an additional 453,001 shares for an additional $2.0 million pursuant to the terms of a warrant issued in such private placement. In accordance with the terms of such private placement, on June 7, 2004, the Company filed a registration statement for such 453,001 shares and the additional 453,001 shares issuable upon exercise of the warrant which registration statement was declared effective on August 13, 2004. On September 2, 2004, Grace Brothers, Ltd. exercised its warrant rights to acquire 453,001 newly issued shares of common stock and the Company received $2 million in gross proceeds. On May 29, 2002, the Company secured equity funding through a private placement offering. The Company issued 1.37 million shares of additional common stock at $5.00 per share and received gross proceeds of $6.85 million. Net proceeds were approximately $6.2 million after commissions, legal, accounting and other costs. The Company intends to use the remaining proceeds from the foregoing offerings to fund expected growth in new markets as well as to provide for expanded working capital needs expected to arise as sales volume grows and pay existing debts.

In November 2000, the Company executed a three-year promissory note, held by the Company's largest customer, in the amount of $1,293,895 for the construction of additional production capabilities at the Company's Romeoville, Illinois facility. The outstanding balance of this note was $235,749 on September 30, 2005. The note bears interest at 8.45% per annum and is collateralized by certain powder coating, packaging, lab and related equipment. In May 2005, an amendment to this promissory note was executed for the purpose of extending the date when any unpaid balance will be due upon demand from June 1, 2005 to June 1, 2007. Management expects this debt to be fully paid during 2006.

The Company believes that cash from operations, the proceeds of the $1,597,420 loan from BYK-Chemie USA (subject to the restrictions on the use of such proceeds set forth in the Promissory Note evidencing such loan), and cash, cash equivalents and investments on hand and interest income thereon, will be adequate to fund the Company's operating plans for the foreseeable future. The Company's actual future capital requirements in 2005 and beyond will depend, however, on many factors, including customer acceptance of the Company's current and potential nanocrystalline materials and product applications, continued progress in the Company's research and development activities and product testing programs, the magnitude of these activities and programs, and the costs necessary to increase and expand the Company's manufacturing capabilities and to market and sell the Company's 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 the Company's existing customers. The Company expects that capital spending relating to currently known capital needs in 2005 will be approximately $500,000, but could be even greater due to the factors discussed above.

Should events arise that make it appropriate for the Company to seek additional financing, it should be noted that additional financing may not be available on acceptable terms or at all, and any such additional financing could be dilutive to the Company's 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 the Company's control; the need to meet previously discussed cash requirements to avoid a triggering event; or various other circumstances coming to pass that are currently not anticipated by the Company.

On September 30, 2005, the Company had a net operating loss carryforward of approximately $66.9 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. If not utilized, the carryforward expires at various dates between 2005 and 2014. 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, the Company has concluded that it is likely that some portion of this carryforward will expire before ultimately becoming available to reduce income tax liabilities. On September 30, 2005, the Company also had a foreign tax credit carryforward of $156,000, which could be used as an offsetting tax credit to reduce U.S. income taxes. The foreign tax credit will expire in 2014, if not utilized before that date.

Safe Harbor Provision

The following risks, uncertainties and other factors could have a material adverse affect on our business, financial condition, operating results and growth prospects.

We have a limited operating history and may not be able to address difficulties encountered by early stage companies in new and rapidly evolving markets.

We have only a limited operating history. We were formed in November 1989 and began our commercial nanocrystalline materials operations in January 1997. We have not yet generated a significant amount of revenue from our nanocrystalline materials operations. Because of our limited operating history and the early stage of development of our rapidly evolving market, we have limited insight into trends that may emerge and adversely affect our business and cannot be certain that our business strategy will be successful or that it will successfully address these risks. In addition, our efforts to address any of these risks may distract personnel or divert resources from other more important initiatives, such as attracting and retaining customers and responding to competitive market conditions.

We have a history of losses that may continue in the future.

We have incurred net losses in each year since our inception with net losses of $5.16 million in 2002, $5.83 million in 2003 and $6.45 million in 2004. As of September 30, 2005, we had an accumulated deficit of approximately $56.2 million and presently expect to continue to incur losses on an annual basis through at least the end of 2005. We believe that our business depends, among other things, on our ability to significantly increase revenue. If revenue fails to grow at anticipated rates or if operating expenses increase without a commensurate increase in revenue, or if we fail to adjust operating expense levels accordingly, then the imbalance between revenue and operating expenses will negatively impact our cash balances and our ability to achieve profitability in future periods.

We depend on a small number of customers for a high percentage of our sales, and the loss of orders from a significant customer could cause a decline in revenue and/or increases in the level of losses incurred.

Sales to our customers are executed pursuant to purchase orders and annual supply contracts; however, customers can cease doing business with us at any time with limited advance notice. We expect a significant portion of our future sales to remain concentrated within a limited number of strategic customers. We may not be able to retain our strategic customers, such customers may cancel or reschedule orders, or in the event of canceled orders, such orders may not be replaced by other sales or by sales that are on as favorable terms. In addition, sales to any particular customer may fluctuate significantly from quarter to quarter, which could affect our ability to achieve anticipated revenues on a quarterly basis.

Revenue from BASF Corporation, Rohm and Haas Electronic Materials CMP, Inc. (formerly known as “Rodel”) and C.I. Kasei, a division of Itochu Corporation, accounted for approximately 89% of total revenue for the year ended December 31, 2004, and revenue to the same three customers accounted for approximately 94% of total revenue in 2003. For the years ended December 31, 2004 and 2003, BASF accounted for 70% and 61% of our total revenue, respectively. These three customers also represented a significant majority of total revenue for the nine months ended September 30, 2005, as described in Note 5 to the Financial Statements. If we were to lose, or receive significantly decreased orders from, any of these three customers, then our results of operations would be materially harmed. While our agreements with our three largest customers are long-term agreements, they may be terminated by the customer with reasonable notice and do not provide any guarantees that these customers will continue to buy our products. In addition, while our agreements with our three largest customers contain minimum order requirements, the only repercussion under the agreements for missing the minimum order requirement is that, after certain periods of time, we would be freed from the exclusivity obligations under these contracts.

We have been consistently expanding both our marketing and business development efforts and our production efficiency in order to address the issues of our dependence upon a limited amount of customers, enhancement of gross profit and operating cash flows, and the achievement of profitability. We currently have customers that may grow to the point where they generate significant revenues and margins as relationships expand. Given the special nature of our products, and the fact that markets for them are not yet fully developed, it is difficult to accurately predict when additional large customers will materialize. On a going forward basis, our margins, as a percentage of revenue, will be dependent upon revenue mix, revenue volume and our ability to continue to cut costs. The extent of the growth in revenue volume and the related gross profit that this revenue generates, will be the main drivers in generating positive operating cash flows and, ultimately, net income.

Any downturn in the markets served by us would harm our business.

A majority of our products are incorporated into products such as sunscreens, polishing slurries, personal care and to a lesser extent abrasion-resistant coatings for flooring and other products. These markets have from time to time experienced cyclical, depressed business conditions, often in connection with, or in anticipation of, a decline in general economic conditions. These industry downturns have resulted in reduced product demand and declining average selling prices. Our business would be harmed by any future downturns in the markets that we serve.

Our products often have long adoption cycles, which could make it difficult to achieve market acceptance and makes it difficult to forecast revenues.

Due to their often novel characteristics and the unfamiliarity with them that exists in the marketplace, our nanocrystalline materials often exhibit longer adoption cycles than existing materials technologies. Our nanomaterials have to receive appropriate attention within any potential customer's organization, then they must be tested to prove a performance advantage over existing materials, typically on a systems-cost basis. Once we have proven initial commercial viability, pilot scale production runs must be completed by the customer, followed by further testing. Once production-level commercial viability is established, then our nanomaterials can be introduced, often to a downstream marketplace that needs to be familiarized with them. If we are unable to convince our potential customers of the performance advantages and economic value of our nanocrystalline materials over existing and competing materials and technologies, we will be unable to generate significant sales. Our long adoption cycle makes it difficult to predict when sales will occur.

We depend on collaborative development relationships with our customers and do not have a substantial direct sales force or an established distribution network. If we are unable to initiate or sustain such collaborative relationships or if the terms of these relationships limit the distribution of our products, then we may be unable to independently develop, manufacture or market our current and future nanocrystalline materials or applications.

We have established, and will continue to pursue, collaborative relationships with many of our customers and do not have a substantial direct sales force or an established distribution network (other than distribution arrangements for research samples). Through these relationships, we seek to develop new applications for our nanocrystalline materials and share development and manufacturing resources. We also seek to coordinate the development, manufacture and marketing of our nanocrystalline products. Future success will depend, in part, on our continued relationships with these customers and our ability to enter into similar collaborative relationships with other customers. Our customers may not continue in these collaborative development relationships, may not devote sufficient resources to the development or sale of our materials or may enter into collaborative development relationships with our competitors. These customers may also require a share of control of these collaborative programs. Some of our agreements with these customers limit our ability to license our technology to others and/or limit our ability to engage in certain product development or marketing activities. These relationships generally can be terminated unilaterally by customers.

Additionally, these customers generally require exclusive distribution arrangements within the field of application covered by our agreement with these customers, and the very nature of these collaborative relationships limits the distribution of our products to the distribution networks available to our collaborative relationship partners. In addition, the development agreements with some of our larger customers contain provisions that require us to license our intellectual property to these customers on disadvantaged terms and/or transfer equipment to these customers in the event that we materially breach these agreements or fail to satisfy certain financial covenants. For example, see “Risk Factors—We may need to raise additional capital in the future.”

If we are unable to initiate or sustain such collaborative relationships or if the terms of these relationships materially limit our access to distribution channels for our products, then we may be unable to independently develop, manufacture or market our current and future nanocrystalline materials or applications.

If a catastrophe strikes either of our manufacturing facilities or if we were to lose our lease for either facility due to non-renewal or other unforeseen events, we may be unable to manufacture our materials to meet customers' demands.

Our manufacturing facilities are located in Romeoville and Burr Ridge, Illinois. These facilities and some of our manufacturing and testing equipment would be difficult to replace in a timely manner. Therefore, any material disruption at one of our facilities due to a natural or man-made disaster or a loss of lease due to non-renewal or other unforeseen events could have a material adverse effect on our ability to manufacture products to meet customers' demands. While we maintain customary property insurance, this insurance may not adequately compensate us for all losses that we may incur and would not compensate us for any interruption in our business.

If we are unable to expand our production capabilities to meet unexpected demand, we may be unable to manage our growth and our business would suffer.

Our success will depend, in part, on our ability to manufacture nanocrystalline materials in significant quantities, with consistent quality and in an efficient and timely manner. We expect to continue to expand our current facilities or obtain additional facilities in the future in order to respond to unexpected demand for existing materials or for new materials that we do not currently make in quantity. Such unplanned demand, if it resulted in rapid expansion, could create a situation where growth could become difficult to manage, which could cause us to lose potential revenue.

Protection of our intellectual property is limited and uncertain.

Our intellectual property is important to our business. We seek to protect our intellectual property through patent, trademark, trade secret protection and confidentiality or license agreements with our employees, customers, suppliers and others. Our means of protecting our intellectual property rights in the United States or abroad may not be adequate and others, including our competitors, may use our proprietary technology without our consent. We may not receive the necessary patent protection for any applications pending with the U.S. Patent and Trademark Office ("USPTO") and any of the patents that we currently own or license may not be sufficient to keep competitors from using our materials or processes. In addition, patents that we currently own or license may not be held valid if subsequently challenged by others and others may claim rights in the patents and other proprietary technology that we own or license. Additionally, others may have already developed or may subsequently develop similar products or technologies without violating any of our proprietary rights. If we fail to obtain patent protection or preserve our trade secrets, we may be unable to effectively compete against others offering similar products and services. In addition, if we fail to operate without infringing the proprietary rights of others or lose any license to technology that we currently have or will acquire in the future, we may be unable to continue making the products that we currently make.

Moreover, at times, attempts may be made to challenge the prior issuance of our patents. For example, the USPTO has granted a third-party request for re-examination with respect to one patent relating to one of our nanoparticle manufacturing processes. On September 7, 2005, our representatives conducted an interview with the Examiner assigned to the re-examination at the USPTO, resulting in the Examiner preparing an interview summary indicating that the Examiner agreed that all the issued claims were patentable. However, prior to the USPTO issuing a formal notice confirming patentability, the same third party filed a second request for re-examination of the patent. The second request is currently pending before the USPTO. While we will continue to vigorously defend our patent position, we may not be successful in maintaining the scope of the claims of this patent during re-examination. If our

patent claims are narrowed substantially by the USPTO, the patent coverage afforded our nanoparticle manufacturing process could be impaired. While we would not expect such impairment to affect the value of our manufacturing trade secrets that have not been disclosed in the patent, it could impede the extent of our legal protection of the invention that is subject to this patent and potentially harm our business and operating results.

Furthermore, litigation may be necessary to enforce our intellectual property rights, to protect our trade secrets, to determine the validity and scope of the proprietary rights of others, or to defend against claims of infringement or invalidity. Such litigation could result in substantial costs and diversion of resources and could harm our business, operating results and financial condition. In addition, if others assert that our technology infringes their intellectual property rights, resolving the dispute could divert our management team and financial resources.

In the future, we may license certain of our intellectual property, such as trademarks or copyrighted material, to third parties. While we would attempt to ensure that any licensees maintain the quality and value of our brand, these licenses might diminish this quality and value.

We may be subject to claims that one or more of the business methods used by us infringe upon patents held by others. The defense of any claims of infringement made against us by third parties could involve significant legal costs and require our management to divert time and other resources from our business operations. Either of these consequences of an infringement claim could have a material adverse effect on our operating results. If we are unsuccessful in defending any claims of infringement, we may be forced to obtain licenses or pay royalties to continue to use our technology. We may not be able to obtain any necessary licenses on commercially reasonable terms or at all. If we fail to obtain necessary licenses or other rights, or if these licenses are costly, our operating results may suffer either from reductions in revenue through our inability to serve clients or from increases in costs to license third-party technology.

Our industry is experiencing rapid changes in technology. If we are unable to keep pace with these changes, our business will not grow.

Rapid changes have occurred, and are likely to continue to occur, in the development of advanced materials and processes. Our success will depend, in large part, upon our ability to keep pace with advanced materials technologies, industry standards and market trends and to develop and introduce new and improved products on a timely basis. We expect to commit substantial resources to develop our technologies and product applications and, in the future, to expand our commercial manufacturing capacity as volume grows. Our development efforts may be rendered obsolete by the research efforts and technological advances of others and other advanced materials may prove more advantageous than those we produce.

Our market is highly competitive, and if we are unable to compete effectively, then our business will not grow.

The advanced materials industry is new, rapidly evolving and intensely competitive, and we expect competition to intensify in the future. The market for materials having the characteristics and potential uses of our nanocrystalline materials is the subject of intensive research and development efforts by both governmental entities and private enterprises around the world. We believe that the level of competition will increase further as more product applications with significant commercial potential are developed. The nanocrystalline product applications that we are developing will compete directly with products incorporating both conventional and advanced materials and technologies. While we are not currently aware of the existence of commercially available competitive products with the same attributes as those we offer, other companies may develop and introduce new or competitive products. Our competitors may succeed in developing or marketing materials, technologies and better or less expensive products than the ones we offer. In addition, many of our potential competitors have substantially greater financial and technical resources, and greater manufacturing and marketing capabilities than we do. If we fail to improve our current and potential nanocrystalline product applications at an acceptable price, or otherwise compete with producers of conventional materials, we will lose market share and revenue to our competitors.

We may need to raise additional capital in the future. If we are unable to obtain adequate funds, we may be required to delay, scale-back or eliminate some of our manufacturing and marketing operations or we may need to obtain funds through arrangements on less favorable terms or we may be required to transfer equipment to our largest customer.

We expect to expend significant resources on research, development and product testing, and in expanding current capacity or capability for new business. In addition, we may incur significant costs in preparing, filing, prosecuting, maintaining and enforcing our patents and other proprietary rights. If necessary, we may seek funding through public or private financing and through contracts with government or other companies. Additional financing may not be available on acceptable terms or at all. If we are unable to obtain adequate funds, we may be required to delay, scale-back or eliminate some of our manufacturing and marketing operations or we may need to obtain funds through arrangements on less favorable terms. If we obtain funding on unfavorable terms, we may be required to relinquish rights to some of our intellectual property.

To raise additional funds in the future, we would likely sell our equity or debt securities or enter into loan agreements. To the extent that we issue debt securities or enter into loan agreements, we may become subject to financial, operational and other covenants that we must observe. In the event that we were to breach any of these covenants, then the amounts due under such loans or debt securities could become immediately payable by us, which could significantly harm us. To the extent that we sell additional shares of our equity securities, our stockholders may face economic dilution and dilution of their percentage of ownership.

We currently have a supply agreement with BASF that contains provisions which could potentially result in a mandatory license of technology and sale of production equipment to BASF providing capacity sufficient to meet BASF's production needs. The license and related sale would be "triggered" only in the event that we breach certain of our obligations under the supply agreement or one of the following occurs:

- our earnings for a twelve month period ending with our most recently published quarterly financial statements are less than zero and our cash, cash equivalents and investments are less than $2,000,000, or
- the acceleration of any debt maturity having a principal amount of more than $10,000,000, or we become insolvent as defined in the supply agreement.

In the event of a triggering event where we are required to sell to BASF production equipment providing capacity sufficient to meet BASF's production needs, the equipment would be sold at 115% of the equipment's net book value.

We believe that we have sufficient cash balances to avoid the first triggering event for the foreseeable future. If a triggering event were to occur and BASF elected to proceed with the license and related sale mentioned above, 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 would be purchased and removed by BASF pursuant to this triggering event could take six months to a year. Any additional capital outlays required to rebuild capacity would probably be greater than the proceeds from the purchase of the assets pursuant to our agreement with BASF. This shortfall might put us in a position where it would be difficult to secure additional funding given what would then be an already tenuous cash position. Such an event would also 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 would be difficult to quickly replace and train. Given the occurrence of such an event, we might not be able to hire and retrain skilled employees given the stigma relating to such an event and its impact on us. We might elect to effectively reduce our size and staffing to a point where we could remain a going concern in the near term.

We depend on key personnel, and their unplanned departure could harm our business.

Our success will depend, in large part, upon our ability to attract and retain highly qualified research and development, management, manufacturing, marketing and sales personnel on favorable terms. Due to the specialized

nature of our business, we may have difficulty locating, hiring and retaining qualified personnel on favorable terms. If we were to lose the services of any of our key executive officers or other key personnel, or if we are unable to attract and retain other skilled and experienced personnel on acceptable terms in the future, or if we are unable to implement a succession plan to prepare qualified individuals to assume key roles upon any loss of our key personnel, then our business, results of operations and financial condition would be materially harmed. In addition, we do not currently have “key-man” life insurance policies covering all of our executive officers or key employees, nor do we presently have any plans to purchase such policies.

We face potential product liability risks which could result in significant costs that exceed our insurance coverage, damage our reputation and harm our business.

We may be subject to product liability claims in the event that any of our nanocrystalline product applications are alleged to be defective or cause harmful effects. Because our nanocrystalline materials are used in other companies’ products, to the extent our customers become subject to suits relating to their products, such as cosmetic, skin-care and personal-care products, these claims may also be asserted against us. We may incur significant costs including payment of significant damages, in defending or settling product liability claims. We currently maintain insurance coverage in the amount of $10 million for product liability claims, which may prove not to be sufficient. Even if a suit is without merit and regardless of the outcome, claims can divert management time and attention, injure our reputation and adversely affect demand for our nanocrystalline materials.

We are subject to governmental regulations. The costs of compliance and liability for noncompliance with governmental regulations could have a material adverse effect on our business, results of operations and financial condition.

Current and future laws and regulations may require us to make substantial expenditures for preventive or remedial action. Our operations, business or assets may be materially and adversely affected by governmental interpretation and enforcement of current or future environmental, health and safety laws and regulations. In addition, our coating operations pose a risk of accidental contamination or injury. The damages in the event of an accident or the costs to prevent or remediate a related event could exceed both the amount of our liability insurance and our resources or otherwise have a material adverse effect on our business, results of operations and financial condition.

In addition, both of our facilities and all of our operations are subject to the plant and laboratory safety requirements of various occupational safety and health laws. We believe we have complied in all material respects with regard to governmental regulations applicable to us. However, we may have to incur significant costs in defending or settling future claims of alleged violations of governmental regulations and these regulations may materially restrict or impede our operations in the future. In addition, our efforts to comply with or contest any regulatory actions may distract personnel or divert resources from other more important initiatives.

The manufacture and use of certain products that contain our nanocrystalline materials are subject to intense governmental regulation, including regulations promulgated by the U.S. Food and Drug Administration, the U.S. Environmental Protection Agency and the U.S. Occupational Safety and Health Administration. As a result, we are required to adhere to the requirements of the regulations of governmental authorities in the United States and other countries. These regulations could increase our cost of doing business and may render some potential markets prohibitively expensive.

We have implemented anti-takeover provisions which could discourage or prevent a takeover, even if an acquisition could be beneficial to our stockholders.

In October 1998, we entered into a Rights Agreement, commonly referred to as a “poison pill.” The provisions of this agreement and some of the provisions of our certificate of incorporation, our bylaws and Delaware law could, together or separately:

- discourage potential acquisition proposals;

- delay or prevent a change in control; and
- limit the price that investors might be willing to pay in the future for shares of our common stock.

In particular, our board of directors is authorized to issue up to 24,088 shares of preferred stock (less any outstanding shares of preferred stock) with rights and privileges that might be senior to our common stock, without the consent of the holders of the common stock, including up to 2,500 shares of Series A Junior Participating Preferred Stock issuable under the 1998 Rights Agreement.

In addition, Section 203 of the Delaware General Corporations Law and the terms of our stock option plans may discourage, delay or prevent a change in control of our company.

Future sales of our common stock by existing stockholders could negatively affect the market price of our stock and make it more difficult for us to sell stock in the future.

Sales of our common stock in the public market, or the perception that such sales could occur, could result in a decline in the market price of our common stock and make it more difficult for us to complete future equity financings. A substantial number of shares of our common stock and shares of common stock subject to outstanding warrants and options may be resold pursuant to currently effective registration statements. On November 2, 2005, there are:

- 15,814,309 shares of common stock that have been issued in registered offerings, upon the exercise of options under our equity incentive plan or in private placements and are freely tradable in the public markets,
- 1,476,535 shares of common stock that may be issued on the exercise of stock options outstanding and exercisable under our equity incentive plan;
- 906,002 shares of common stock that were issued pursuant to our September 8, 2003 private placement and the related warrant which was exercised on September 2, 2004. The resale of these shares has been registered pursuant to a Registration Statement on Form S-3 which was declared effective by the Securities and Exchange Commission on August 13, 2004; and
- 1,256,281 shares of common stock that were issued pursuant to our March 23, 2004 private placement and may be registered for resale after March 23, 2006 pursuant the terms of the Registration Rights Agreement executed in connection with this private placement.

We cannot estimate the number of shares of common stock that may actually be resold in the public market because this will depend on the market price for our common stock, the individual circumstances of the sellers, and other factors. If stockholders sell large portions of their holdings in a relatively short time, for liquidity or other reasons, the market price of our common stock could decline significantly.

Bradford T. Whitmore has significant influence on all matters requiring stockholder approval because he beneficially owns a large percentage of our common stock, and he may vote the common stock in ways with which our other stockholders disagree.

As of November 2, 2005, Bradford T. Whitmore, together with his affiliates, Grace Brothers, Ltd. and Grace Investments, Ltd., beneficially owned approximately 19.9% of the outstanding shares of our common stock. As a result, he has significant influence on matters submitted to our stockholders for approval, including proposals regarding:

- any merger, consolidation or sale of all or substantially all of our assets; the election of members of our board of directors; and

- any amendment to our certificate of incorporation.

The ownership position of Mr. Whitmore could delay, deter or prevent a change of control or adversely affect the price that investors might be willing to pay in the future for shares of our common stock. Mr. Whitmore's interests may be significantly different from the interests of our other stockholders and he may vote the common stock he beneficially owns in ways with which our other stockholders disagree. Investors should also note that R. Janet Whitmore, one of our directors, is the sister of Mr. Whitmore.

We have been involved in litigation. If we are involved in similar litigation in the future, the expense of defending such litigation and the potential costs of judgments against us and the costs of maintaining insurance coverage could have a material adverse effect on our financial performance.

We have been involved in three securities class action lawsuits, one of which was a consolidation of several related lawsuits. While all of these lawsuits have been settled and dismissed with all settlements funded by our directors and officers liability insurance, we may be the target of additional securities lawsuits in the future. If we are involved in similar litigation in the future, the expense of defending such litigation, the potential costs of judgments against us, the costs of maintaining insurance coverage and the diversion of management's attention could have a material adverse effect on our financial performance.

Our stock price is volatile.

The stock markets in general, and the stock prices of technology-based companies in particular, have experienced extreme volatility that often has been unrelated to the operating performance of any specific public company. The market price of our common stock has fluctuated in the past and is likely to fluctuate in the future as well. Our future financial performance and stock price may be subject to significant volatility, particularly on a quarterly basis. Shortfalls in our revenues in any given period relative to the levels expected by investors could immediately, significantly and adversely affect the trading price of our common stock.

Dilutive effect of private placements.

On May 29, 2002 we sold 1,370,000 shares of our common stock to selected accredited investors at a purchase price of $5.00 per share. On May 29, 2002 the closing sale price of our common stock, as reported on NASDAQ, was $5.15 per share. On September 8, 2003 we sold 453,001 shares of our common stock to Grace Brothers, Ltd. at a purchase price of $4.415 per share together with a warrant to purchase a like number of shares of common stock during the next twelve months also at a price of $4.415 per share. The share price for the common stock was determined based on the fifteen-day market closing average for our stock ending September 5, 2003. On September 8, 2003 the closing sale price of our common stock as reported on NASDAQ, was $5.50 per share. On March 23, 2004 we sold 1,256,281 shares of our common stock to Altana at a purchase price of $7.96 per share. On March 23, 2004 the closing sale price of our common stock, as reported on NASDAQ, was $8.26 per share. Each of these issuances of stock at below the then-current market price had a dilutive effect on existing common stockholders.

We have never paid dividends.

We currently intend to retain earnings, if any, to support our growth strategy. We do not anticipate paying dividends on our stock in the foreseeable future.

Safe Harbor Provision

Nanophase Technologies Corporation wants to provide investors with more meaningful and useful information. As a result, this Quarterly Report on Form 10-Q (the “Form 10-Q”) contains and incorporates by reference certain “forward-looking statements”, as defined in Section 21E of the Securities Exchange Act of 1934, as amended. These statements reflect 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 2005 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; the resolution of litigation in which the Company may become involved; and other risks set forth under the caption “Risk Factors” above. 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

The only financial instruments that the Company holds are investments of a short-term duration. Management does not believe that the Company currently has material market risk relating to its investments.

Item 4. Controls and Procedures

As of the end of the period covered by this report, the Company conducted an evaluation, under the supervision and with the participation of the principal executive officer and principal financial officer, of the Company’s disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934 (the “Exchange Act”). Based on this evaluation, the principal executive officer and principal financial officer concluded that the Company’s disclosure controls and procedures are effective to ensure that information required to be disclosed by the Company in 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. There was no change in the Company’s internal control over financial reporting during the Company’s most recently completed fiscal quarter that has materially affected, or is reasonably likely to materially affect, the Company’s internal control over financial reporting.

PART II – OTHER INFORMATION

Item 1. Legal Proceedings

None.

Item 5. Other Information

On November 3, 2005, BYK-Chemie USA, a customer of Nanophase, loaned $1,597,420 to Nanophase pursuant to the terms of a Promissory Note dated effective October 24, 2005. The proceeds of the Promissory Note are to be used to buy, install and commission certain equipment which is then to be used for fulfillment of orders by BYK-Chemie USA and other uses. The outstanding principal balance of the Promissory Note is payable in three equal installments on January 30, 2009, April 30, 2009 and December 31, 2009. Interest accrues and is payable on a quarterly basis one year after the equipment referenced above is installed at the rate of 100 basis points over the average daily London Inter-Bank Offered Rate for the preceding quarter.

On October 18, 2005 Nanophase entered into a Lease Amendment amending its current lease for its facilities in Romeoville, Illinois, which, among other things, extended the term of such lease through December 31, 2015 (with the option to extend the term for two additional five year periods) and granted Nanophase an option to purchase such facility in certain instances.

Item 6. Exhibits and Reports on Form 8-K

A. Exhibits.

31.1 Certification of Chief Executive Officer pursuant to Rules 13a-14(a) and 15d-14(a) under the Exchange Act.

31.2 Certification of the Chief Financial Officer pursuant to Rules 13a-14(a) and 15d-14(a) under the Exchange Act.

32 Certification of the Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350.

B. Reports on Form 8-K.

On July 26, 2005, the Company furnished a Current Report on Form 8-K (as modified by a Form 8-K/A on July 27, 2005 to correct a typographical error) reporting under Items 2.02 and 9.01 that on July 26, 2005 it issued a press release announcing second quarter 2005 revenues.

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 7, 2005

By: /s/ JOSEPH E. CROSS

Joseph E. Cross
President, Chief Executive Officer
(principal executive officer) and a Director

Date: November 7, 2005

By: /s/ JESS A. JANKOWSKI

Jess A. Jankowski
Chief Financial Officer
(principal financial and chief accounting officer)

Exhibit 31.1

Certification of the Chief Executive Officer
Pursuant to
Rules 13a-14(a) and 15d-14(a) under the Exchange Act

I, Joseph Cross, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Nanophase Technologies Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15(d)-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of then end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 7, 2005

/s/ JOSEPH E. CROSS

Joseph E. Cross
Chief Executive Officer

Exhibit 31.2

Certification of the Chief Financial Officer
Pursuant to
Rules 13a-14(a) and 15d-14(a) under the Exchange Act

I, Jess Jankowski, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Nanophase Technologies Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15(d)-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of then end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 7, 2005

/s/ JESS A. JANKOWSKI

Jess A. Jankowski
Chief Financial Officer

Exhibit 32

Certification Pursuant to 18 U.S.C. Section 1350
(as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002)

In connection with this quarterly report of Nanophase Technologies Corporation (the "Company") on Form 10-Q for the period ending September 30, 2005 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, Joseph E. Cross, Chief Executive Officer of the Company, and Jess A. Jankowski, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to our knowledge:

1. The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: November 7, 2005

/s/ Joseph E. Cross

Joseph E. Cross
Chief Executive Officer

/s/ Jess A. Jankowski

Jess A. Jankowski
Chief Financial Officer