

NANOPHASE TECHNOLOGIES CORPORATION  
Form 10-K/A  
May 23, 2003

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**SECURITIES AND EXCHANGE COMMISSION**

**Washington, D.C. 20549**

**FORM 10-K/A**

**AMENDMENT No. 1**

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

For the fiscal year ended December 31, 2002

Commission File Number 0-22333

**NANOPHASE TECHNOLOGIES CORPORATION**

(Exact name of registrant as specified in its charter)

**Delaware**

**36-3687863**

(State or other jurisdiction

(I.R.S. Employer Identification No.)

of incorporation or organization)

**1319 Marquette Drive, Romeoville, Illinois 60446**

(Address of principal executive offices) (zip code)

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

Securities registered pursuant to Section 12(b) of the Act: **None**

Securities registered pursuant to Section 12(g) of the Act:

**Common Stock, par value \$.01 per share**

**Preferred Stock Purchase Rights**

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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. Yes  No

Indicate by check mark whether the registrant is an accelerated filer (as defined in Exchange Act Rule 12B-2). Yes  No

The aggregate market value of the registrant's voting stock held by non-affiliates of the registrant, based upon the last reported sale price of the registrant's Common Stock on June 28, 2002 was \$67,918,991.

The number of shares outstanding of the registrant's Common Stock, par value \$.01, as of May 16, 2003 was 15,181,491.

**DOCUMENTS INCORPORATED BY REFERENCE**

None.

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### Introductory Note

Nanophase Technologies Corporation hereby amends its Annual Report of Form 10-K for the fiscal year ended December 31, 2002 (originally filed March 31, 2003) to include Items 10, 11, 12 and 13, which were not part of the original filing and to re-file an exhibit for which confidential treatment has been requested. No other changes have been made to the Annual Report. This Form

10-K/A does not reflect events occurring after the filing of the original Form 10-K and does not modify or update the disclosure therein in any way other than as required to reflect the amendments discussed above and reflected below.

### PART III

#### Item 10. Directors and Executive Officers of the Registrant

Set forth below is certain information regarding the directors of the Company.

Name	Age	Position with Company	Served as		Class
			Director Since	Term Expires	
James A. Henderson	68	Director	2001	2004	I
James A. McClung, Ph.D.	65	Director	2000	2004	I
Joseph E. Cross	55	Director, President and Chief Executive Officer	1998	2005	II
Richard W. Siegel, Ph.D.	65	Director	1989	2005	II
Donald S. Perkins	75	Chairman of the Board of Directors	1998	2003	III
Jerry K. Pearlman	63	Director	1999	2003	III

**Mr. Henderson** joined the board in July 2001. He retired as Chairman and Chief Executive Officer of Cummins Engine Company in December 1999, after joining the company in 1964. Mr. Henderson became President and Chief Operating Officer of Cummins in 1977, was promoted to President and Chief Executive Officer in 1994 and served as Chairman and Chief Executive Officer from 1995 until his retirement in 1999. Mr. Henderson attended Culver Military Academy, holds an AB in public and international affairs from Princeton University and an MBA from Harvard Business School. Mr. Henderson currently serves as Chairman of the Board of The Culver Education Foundation, member of the Board of Directors of Championship Auto Racing Teams (CART), International Paper, Landmark Communications, Inc., Rohm and Haas Company, Ryerson Tull, Inc., SBC Communications, Inc., Heritage Fund of Bartholomew County, Inc. and is a member of the Washington, D.C. Business Council.

**Mr. McClung** has served as a director of the Company since February 2000. He is currently Vice Chairman of Charter Consulting and former Senior Vice President and executive officer for FMC Corporation, a leading producer of a diversified portfolio of chemicals and machinery. He has over 30 years of international business development in over 75 countries, having managed and developed new technologies and production processes for diversified global businesses, including specialized chemicals and machinery, while living in the United States, Europe, and Africa. Mr. McClung currently serves as Corporate Director of Alticor (Amway), Turtle Wax and Beaulieu of America Corporation. He was a founding member of the U.S. Russia Business Council and is active in other international business organizations, such as the Japan American Society, Chicago Council of Foreign Relations and the Economic Club of Chicago. He serves as a board director at Illinois Institute of Technology, The American graduate School of International Management (Thunderbird School) and the College of Wooster (Ohio). Mr. McClung earned a Bachelor's degree from the College of Wooster, a Master's degree from the University of Kansas, and a Doctorate from Michigan State University.

**Mr. Cross** has served as Chief Executive Officer of the Company since December 1998 and President and a director of the Company since joining the Company in November 1998. Prior to joining the Company in November 1998, Mr. Cross served as President and Chief Executive Officer of Aptech, a manufacturer of measurement, metering and control devices for the utility industry, from August 1996 to October 1998. From December 1993 to July 1996, Mr. Cross served as President of Aegis Technologies, an interactive telecommunications company. He holds a B.S. degree from Southwest Missouri University and attended the M.B.A. program at Southwest Missouri University.

**Dr. Siegel** is a co-founder of the Company and has served as a director of the Company since 1989. Dr. Siegel also has served as a consultant to the Company since 1990 with regard to the application and commercialization of nanocrystalline materials. Dr. Siegel is an internationally recognized scientist in the field of nanocrystalline materials. During his tenure on the research staff at Argonne National Laboratory from July 1974 to May 1995, he was the principal scientist engaged in research with the laboratory-scale synthesis process that was the progenitor of the Company's physical-vapor-synthesis production system. Dr. Siegel has been the Robert W. Hunt Professor in Materials Science and Engineering at Rensselaer Polytechnic Institute since June 1995, and served as Department Head from 1995 to 2000. In April 2001, Dr. Siegel became the founding Director of the newly created Rensselaer Nanotechnology Center at the Institute. During 1995-1998, he was also a visiting professor at the Max Planck Institute for Microstructure Physics in Germany on an Alexander von Humboldt Research Prize received in 1994. He chaired the World Technology Evaluation Center worldwide study of nanostructure science and technology for the U.S. government, has served on the Council of the Materials Research Society and as Chairman of the International Committee on Nanostructured Materials. He also served on the Committee on Materials with Sub-Micron Sized Microstructures of the National Materials Advisory Board and was the co-chairman of the Study Panel on Clusters and Cluster-Assembled Materials for the U.S. Department of Energy. Dr. Siegel holds an A.B. degree in physics from Williams College and an M.S. degree and Ph.D. from the University of Illinois at Urbana-Champaign.

**Mr. Perkins** has served as a director of the Company since February 1998. Mr. Perkins retired from Jewel Companies, Inc., the retail supermarket and drug chain, in 1983. He had been

with Jewel since 1953, serving as President from 1965 to 1970, as Chairman of the Board of Directors from 1970 to 1980, and as Chairman of the Executive Committee until his retirement. He has served on a number of corporate boards and is currently a director of LaSalle Hotel Properties, three Jones Lang LaSalle REITs and several start-up companies. For more than 30 years, he has served on corporate boards including AT&T, Aon, Corning, Cummins Engine, Eastman Kodak, Firestone, Inland Steel Industries, Kmart, Lucent Technologies, The Putnam Funds, Springs Industries and Time-Warner, Inc. He is Honorary Chairman of the Illinois Coalition and Protector of the Thyssen-Bornemisza Continuity Trust. Mr. Perkins is a trustee and Vice Chairman of the Board of Trustees of Northwestern University. He is also a member of the Civic Committee of The Commercial Club of Chicago, a Director of Leadership for Quality Education and a member of Blue Ridge Partners, Potomac Ventures and RoundTable Healthcare Partners L.P. Advisory Boards. Mr. Perkins holds a B.A. degree from Yale University and an M.B.A. degree from the Harvard Graduate School of Business Administration.

**Mr. Pearlman** has served as a director of the Company since April 1999. Mr. Pearlman retired as Chairman of Zenith Electronics Corporation in November 1995. He joined Zenith as controller in 1971 and served as chief executive officer from 1983 through April 1995. Mr. Pearlman is a director of Smurfit Stone Container Corporation and Ryerson-Tull, Inc. He is a trustee of Northwestern University and a director and past chairman of the board of Evanston Northwestern Healthcare. Mr. Pearlman graduated from Princeton with honors from the Woodrow Wilson School and from Harvard Business School with highest honors.

**Director Compensation** Upon first being elected to the Board of Directors, each director of the Company who is not an employee or consultant of the Company (an Outside Director ) is granted stock options to purchase 10,000 shares of Common Stock at the fair market value of the Common Stock, as determined by a committee appointed by the Board of Directors, as of the date of issuance of such stock options. On or after the date of each annual meeting of the stockholders of the Company, each Outside Director who is re-elected or continues to serve as a director because his or her term has not expired is typically granted stock options to purchase 2,000 shares of Common Stock provided that such grant is typically not made to an Outside Director who was first elected to the Board of Directors within three months prior to such annual meeting. The options granted to Outside Directors typically vest in three equal annual installments beginning on the first anniversary of the date of grant. All options granted to Outside Directors expire ten years from the date of grant. Effective January 17, 2003, the Company granted 4,870 shares of Common Stock to each of Donald Perkins, Richard Siegel, Jerry Pearlman, James McClung, and James Henderson. The Company also agreed to issue a cash payment of \$10,000 to reimburse these Directors for personal income tax liabilities relating to this grant of Common Stock. In addition, the Company entered into a consulting agreement in March 2001 with Richard Siegel, Ph.D. pursuant to which the Company paid Dr. Siegel \$2,000 per month for consulting services over a twelve-month term. This agreement expired in July 2002. All Outside Directors are reimbursed for their reasonable out-of-pocket expenses incurred in attending board and committee meetings.

**Meetings** During the year ended December 31, 2002, the Board of Directors held six formal meetings. Four of the Company's current directors attended 100% of the total board and committee meetings held during 2002. Mr. Henderson missed one board meeting and one

Compensation and Governance Committee meeting (both meetings were held on the same day). Dr. Siegel missed one board meeting held during 2002.

**Committees of the Board of Directors** The Board of Directors has established an Audit and Finance Committee and a Compensation and Governance Committee, each comprised entirely of directors who are not officers or employees of the Company. The members of the Audit and Finance Committee are Mr. McClung (Chairman), Mr. Henderson, Mr. Pearlman and Mr. Perkins. The members of the Compensation and Governance Committee are Mr. Pearlman (Chairman), Mr. Henderson, Mr. McClung and Mr. Perkins. The Company does not have a standing nominating committee.

The Audit and Finance Committee generally has responsibility for recommending independent public auditors to the Board of Directors for selection, reviewing the plan and scope of the accountants' annual audit, reviewing the Company's internal control functions and financial management policies, and reporting to the Board of Directors regarding all of the foregoing. The Audit and Finance Committee held five formal meetings in 2002. See Report of the Audit and Finance Committee of the Board of Directors.

The Compensation and Governance Committee generally has responsibility for recommending to the Board of Directors guidelines and standards relating to the determination of executive and key employee compensation, reviewing the Company's executive compensation policies and reporting to the Board of Directors regarding the foregoing. The Compensation and Governance Committee also has responsibility for administering the 2001 Equity Compensation Plan, determining the number of options, if any, to be granted to the Company's employees and consultants pursuant to the 2001 Equity Compensation Plan and reporting to the Board of Directors regarding the foregoing. The Compensation and Governance Committee held four formal meetings in 2002. See Report of the Compensation and Governance Committee of the Board of Directors.

### EXECUTIVE OFFICERS

Set forth below is certain information regarding the executive officers of the Company who are not identified above as directors.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Jess Jankowski	37	Acting Chief Financial Officer, Vice President, Corporate Controller, Secretary and Treasurer
Robert Haines	52	Vice President Operations
Daniel S. Bilicki	59	Vice President Sales and Marketing
Richard W. Brotzman, Ph.D.	49	Vice President Research and Development
Donald J. Freed, Ph.D.	61	Vice President Business Development
Gina R. Kritchevsky, Ph.D.	49	Chief Technology Officer

**Mr. Jankowski** has served as Controller of the Company since joining in 1995. He was elected Secretary and Treasurer in November 1999, Acting Chief Financial Officer in January 2000 and Vice President in April of 2002. From 1990-1995 he served as Controller for two building contractors in the Chicago area. Mr. Jankowski holds a B.S. in accountancy from



Northern Illinois University, an M.B.A. from Loyola University, and received his certified public accountant certificate from the State of Illinois.

**Mr. Haines** joined Nanophase Technologies in January 2001 as Vice President of Operations. Beginning in 1996 and prior to joining Nanophase, he served as Corporate Director of Quality at Legrand North America. Previous experience includes two years as Vice President of Operations for Aegis Technologies and eight years with Digital Equipment Corporation. Mr. Haines has a BS in Chemistry/Engineering Physics from East Tennessee State University.

**Mr. Bilicki** has served as Vice President Sales and Marketing of the Company since joining the Company in March 1999. From January 1996 until March 1999, Mr. Bilicki served as President/Director of PT Crosfield Indonesia in Jakarta, Indonesia, a subsidiary of Crosfield Company, which is a global chemical company. From January 1994 to December 1995, Mr. Bilicki held the position of President/Director North America of Crosfield Company. He holds a B.S. degree from Indiana Institute of Technology and an M.B.A. degree from Winthrop University.

**Dr. Brotzman** joined the Company in July 1994 as a senior scientist and has served as Vice President Research and Development of the Company since July 1996. He is the inventor of much of the Company's coating technology. Dr. Brotzman has 15 years experience in research and development of advanced materials leading to new products. His technical areas of expertise include interfacial adhesion and chemistry, self-assembled polymeric coatings, nanosized inorganic powders, powder processing, reactive coupling agents, solgel derived protective coatings, non-destructive evaluation of composites, neo-debye relaxation in green inorganic gels, asymmetric membranes and plasma processing. From January 1991 to July 1994, Dr. Brotzman served as Director of Research at TPL, Inc., an advanced materials company. He holds a B.S. degree in chemical engineering from Lafayette College, an M.S. degree in engineering and applied science from the University of California, Davis and a Ph.D. in chemistry from the University of Washington.

**Dr. Freed** joined the Company in April 1995 as Vice President Marketing and has served as Vice President Business Development of the Company from June 1998 through February 2003. He has extensive experience in the commercial development of new technology products, and has been responsible for the successful startup of advanced-materials initiatives in three Fortune 50 companies. From 1985 to April 1995, Dr. Freed held senior marketing, strategic planning and product-development positions with AMP, Inc., and certain of its subsidiaries, primarily in the development and marketing of advanced materials for microelectronics and photonics. From 1980 to 1985, he held similar positions with GTE Corp. and Imperial Chemical Industries, PLC. Previously, Dr. Freed held various scientific and managerial positions at Bell Laboratories. He holds a B.A. degree in chemistry from Queens College and an A.M. degree and Ph.D. in chemistry from Harvard University. Dr. Freed has been a member of The Illinois Coalition and is past Chairman of the International Standards Council for Electronic Interconnection and Packaging Technologies. Dr. Freed retired from Nanophase on February 28, 2003 and is no longer an employee or an officer of the Company.

**Dr. Kritchevsky** served as Vice President Technology and Engineering of the Company since joining the Company in February 1999 and served as Chief Technology Officer



from October 2001 until December 2002. Dr. Kritchevsky resigned from her full-time position on December 6, 2002 and is no longer an officer or an employee of the Company. The Company has retained Dr. Kritchevsky as a consultant until December 2003. From June 1998 to February 1999, Dr. Kritchevsky provided consulting services to companies in a variety of markets, including electronics packaging and liquid crystal display technology. From January 1997 to May 1998, Dr. Kritchevsky was Vice President of Strategic Initiatives for Donnelly Optics Corporation, an optics company. From 1989 to January 1997, Dr. Kritchevsky served in various positions with Donnelly Corporation, an automotive supplier, including Director of Corporate New Business Development. She holds a B.S. degree in chemistry and a Ph.D. in material sciences and engineering from MIT.

The Board of Directors elects executive officers annually and such executive officers, subject to the terms of certain employment agreements, serve at the discretion of the Board of Directors. Messrs. Cross, Jankowski, Bilicki, Haines and Dr. Brotzman each have employment agreements with the Company. See Item 11 below. There are no family relationships among any of the directors or officers of the Company.

#### **SECTION 16(A) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE**

Section 16 of the Securities Exchange Act of 1934, as amended (the Exchange Act), requires the Company's officers (as defined under Section 16), directors and persons who beneficially own greater than 10% of a registered class of the Company's equity securities to file reports of ownership and changes in ownership with the Securities and Exchange Commission. Based solely on a review of the forms it has received and on written representations from certain reporting persons that no such forms were required for them, the Company believes that during 2002 all Section 16 filing requirements applicable to its officers, directors and 10% beneficial owners were complied with by such persons.

**Item 11. Executive Compensation****EXECUTIVE COMPENSATION**

The following table provides information concerning the annual and long-term compensation for services in all capacities to the Company for the years ended December 31, 2002, 2001, and 2000 of those persons who were (i) during 2002, the chief executive officer of the Company and (ii) at December 31, 2002, the four other most highly compensated (based upon combined salary and bonus) executive officers of the Company whose total salary and bonus exceeded \$100,000 during 2002.

**I. Summary Compensation Table**

Name and Principal Position	Year	Annual Compensation			Long-Term Compensation Awards	
		Salary(\$)	Bonus(\$)	Other Annual Compensation(\$)	Securities Underlying Options	All Other Compensation(\$)
<b>Joseph E. Cross (1)</b>	2002	\$ 268,234	\$ 0	\$ 0	55,000	\$ 0
President and Chief Executive Officer	2001	261,922	74,025	17,727(2)	100,000	0
	2000	244,905	50,000	40,083(3)	100,000	84,925(4)
<b>Daniel S. Bilicki</b>	2002	\$ 195,036	\$ 0	\$ 0	30,000	\$ 0
Vice President Sales and Marketing	2001	190,812	46,620	0	60,000	0
	2000	183,288	0	0	50,000	0
<b>Robert Haines (5)</b>	2002	\$ 169,255	\$ 20,000	\$ 0	40,000	\$ 113,047(6)
Vice President Sales and Marketing	2001	147,692	0	55,506(7)	30,000	63,454(8)
	2000	0	0	0	0	0
<b>Richard Brotzman, Ph.D.</b>	2002	\$ 155,914	\$ 10,000	\$ 0	20,000	\$ 0
Vice President Research and Development	2001	145,760	16,800	0	40,000	0
	2000	139,039	0	0	22,500	0
<b>Donald J. Freed, Ph.D. (9)</b>	2002	\$ 149,714	\$ 0	\$ 0	20,000	\$ 0
Vice President Business Development	2001	146,423	22,365	0	40,000	0

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	2000	139,039	0	0	16,875	0
<b>Gina R. Kritchevsky, Ph.D.</b> (10)	2002	\$ 188,908	\$ 0	\$ 0	30,000	\$ 0
Chief Technology Officer	2001	180,307	44,100	0	60,000	0
	2000	170,769	35,000	0	50,000	9,363(11)

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- (1) Joseph E. Cross commenced employment as the President and Chief Operating Officer of the Company in November 1998 and became its Chief Executive Officer in December 1998.
- (2) Represents payment of personal income tax liabilities associated with relocation expenses received.
- (3) Includes \$17,605 paid for lodging in Burr Ridge, Illinois, \$12,992 paid for airfare to and from Chicago, Illinois, and \$9,486 in payments related to use of a car. These expenses were incurred through 2000. All

- amounts have been grossed-up to compensate Mr. Cross for personal income tax liabilities associated with the reimbursement of these expenses.
- (4) Represents relocation expenses incurred by Mr. Cross for moving to the greater Chicago metropolitan area.
  - (5) Mr. Haines's employment commenced with the Company on January 22, 2001.
  - (6) Represents relocation expenses incurred by Mr. Haines for moving to the greater Chicago metropolitan area.
  - (7) Includes \$24,793 paid for lodging in Romeoville, Illinois, \$20,930 paid for airfare to and from Chicago, Illinois, and \$9,783 in payments related to use of a car. These expenses were incurred through 2001. All amounts have been grossed-up to compensate Mr. Haines for personal income tax liabilities associated with the reimbursement of these expenses.
  - (8) Represents relocation expenses incurred by Mr. Haines for moving to the greater Chicago metropolitan area.
  - (9) Dr. Freed resigned from his full-time position on February 28, 2003 and is no longer an officer or an employee of the Company.
  - (10) Dr. Kritchevsky resigned from her full-time position on December 6, 2002 and is no longer an officer or an employee of the Company. The Company has retained Dr. Kritchevsky as a consultant until December 2003.
  - (11) Represents a reimbursement for tax liabilities incurred by Dr. Kritchevsky in relation to amounts previously paid to her for relocating to the greater Chicago metropolitan area.

**OPTION GRANTS IN 2002** The following table provides information on grants of stock options to the Named Officers during 2002. No stock appreciation rights were granted to the Named Officers during 2002.

**Option Grants in 2002**

Name	Number of Securities Underlying Options Granted (#) (1)	Individual Grants			Potential Realizable Value at Assumed Annual Rates of Stock Price Appreciation For Option Term (2)	
		Percent of Total Options Granted to Employees in Fiscal Year	Exercise or Base Price (\$/SH)	Expiration Date	5% (\$)	10% (\$)
Joseph E. Cross	55,000	18.97%	\$ 6.65	01/03/12	\$ 230,018	\$ 582,911
Robert Haines	40,000	13.80%	6.65	01/03/12	167,286	423,935
Daniel S. Bilicki	30,000	10.35%	6.65	01/03/12	125,464	317,952
Richard Brotzman, Ph.D.	20,000	6.90%	6.65	01/03/12	83,643	211,968
Donald J. Freed, Ph.D.	20,000	6.90%	6.65	01/03/12	83,643	211,968
Gina R. Kritchevsky, Ph.D.	30,000	10.35%	6.65	01/03/12	125,464	317,952

- (1) These options are all non-qualified stock options. Subject to certain restrictions, these options become exercisable in three equal annual installments, beginning on the first anniversary of the date of grant. These options were granted ten years prior to their expiration dates.
- (2) Potential realizable value is presented net of the option exercise price but before any federal or state income taxes associated with exercise. These amounts represent certain assumed rates of appreciation only. Actual gains will be dependent on the future performance of the Common Stock and the option holder's continued employment through the vesting period. The amounts reflected in the table may not necessarily be realized.

**AGGREGATED OPTION EXERCISES IN 2002 AND YEAR-END 2002 OPTION VALUES** The following table provides information regarding each of the Named Officers' option exercises in 2002 and unexercised options at December 31, 2002.

**Year-End 2002 Option Values**

Name	Shares Acquired On Exercise (#)	Value Realized(\$)	Number of Securities Underlying Unexercised Options at Year-End 2002 (#)		Value of Unexercised In-The-Money Options at Year-End 2002 (\$)(1)	
			Exercisable	Unexercisable	Exercisable	Unexercisable
Joseph E. Cross	0	\$ 0	259,998	195,002	\$ 72,475	\$ 12,650
Robert Haines	0	0	6,000	64,000	0	0
Daniel S. Bilicki	0	0	133,332	106,668	66,850	8,900
Richard Brotzman, Ph.D.	0	0	205,462	80,283	138,975	0
Donald J. Freed, Ph.D.	0	0	77,750	72,804	20,826	0
Gina R. Kritchevsky, Ph.D.	0	0	108,000	116,667	18,119	225

- (1) The value per option is calculated by subtracting the exercise price per option from the closing price of the Common Stock on the Nasdaq National Market on December 31, 2002, which was \$2.82.

**Employment and Consulting Agreements**

The Company entered into an employment agreement with Joseph E. Cross dated November 9, 1999 which provides for an annual base salary of not less than \$220,000. In addition, Mr. Cross received a lump sum payment of \$50,000 on the first anniversary of the commencement of this agreement. The Company also granted to Mr. Cross options to purchase up to 100,000 shares of Common Stock at an exercise price of \$2.9375 per share and options to purchase up to 50,000 shares of Common Stock at an exercise price of \$2.1875, with options for one-fifth of such shares becoming exercisable on each of the first five anniversaries of the dates of grant. No term has been assigned to Mr. Cross' employment agreement. If Mr. Cross is terminated other than for cause (as such term is defined in Mr. Cross' employment agreement),

Mr. Cross will receive severance benefits in an amount equal to Mr. Cross' base salary for 52 weeks.

Effective as of November 2, 2000, the Company also entered into an employment agreement with Robert Haines providing for an annual base salary of not less than \$160,000. The Company also granted to Mr. Haines options to purchase up to 30,000 shares of Common Stock at an exercise price of \$10.1875. No term has been assigned to Mr. Haines' employment agreement. If Mr. Haines is terminated other than for cause (as such term is defined in Mr. Haines' employment agreement), Mr. Haines will receive severance benefits in an amount equal to Mr. Haines' base salary for 52 weeks.

Effective as of February 17, 2000, the Company also entered into an employment agreement with Daniel Bilicki providing for an annual base salary of not less than \$165,000. In addition, Mr. Bilicki was granted options to purchase up to 50,000 shares of Common Stock at an exercise price of \$2.375. No term has been assigned to Mr. Bilicki's employment agreement. If Mr. Bilicki is terminated other than for cause (as such term is defined in Mr. Bilicki's employment agreement), Mr. Bilicki will receive severance benefits in an amount equal to Mr. Bilicki's base salary for 52 weeks.

Effective as of September 26, 2001, the Company also entered into an employment agreement with Dr. Richard Brotzman providing for an annual base salary of not less than \$146,250. No term has been assigned to Dr. Brotzman's employment agreement. If Dr. Brotzman is terminated other than for cause (as such term is defined in Dr. Brotzman's employment agreement), Dr. Brotzman will receive severance benefits in an amount equal to Dr. Brotzman's base salary for 26 weeks.

Effective as of June 1, 1999, the Company also entered into an employment agreement with Dr. Donald Freed providing for an annual base salary of not less than \$125,000. No term was assigned to Dr. Freed's employment agreement. If Dr. Freed had been terminated other than for cause (as such term is defined in Dr. Freed's employment agreement), Dr. Freed would have received severance benefits in an amount equal to Dr. Freed's base salary for 26 weeks.

Effective as of February 15, 1999, the Company also entered into an employment agreement with Dr. Gina R. Kritchevsky providing for an annual base salary of not less than \$165,000. In addition, Dr. Kritchevsky was granted a signing bonus of \$25,000 and a further bonus of \$35,000 on the first anniversary of the commencement of this agreement. The Company also granted to Dr. Kritchevsky options to purchase up to 75,000 shares of Common Stock at an exercise price of \$2.8125. No term was assigned to Dr. Kritchevsky's employment agreement. If Dr. Kritchevsky had been terminated other than for cause (as such term is defined in Dr. Kritchevsky's employment agreement), Dr. Kritchevsky would have received severance benefits in an amount equal to Dr. Kritchevsky's base salary for 52 weeks.

**REPORT OF THE COMPENSATION AND  
GOVERNANCE COMMITTEE  
OF THE BOARD OF DIRECTORS**

The current Compensation and Governance Committee members are Jerry K. Pearlman (Chairman), James A. Henderson, and Donald S. Perkins. The objectives of the Compensation and Governance Committee in determining the levels and components of executive compensation are to (1) attract, motivate and retain talented and dedicated executive officers, (2) provide executive officers with both cash and equity incentives to further the interests of the Company and its stockholders, and (3) compensate executive officers at levels comparable to those of executive officers at other comparable high technology companies. In setting compensation, the Compensation and Governance Committee reviews the achievement of corporate goals and individual contributions of particular executives. Generally, the compensation of the Company's executive officers is composed of base annual compensation, in the form of salary and other benefits, incentives in the form of fiscal year-end bonuses, and long-term compensation consisting of stock options awarded under the Company's stock option plan.

**Base Salaries**

In determining the base salaries of the executive officers in 2002, the Compensation and Governance Committee considered the performance of each executive, the nature of the executive's responsibilities, the salary levels of executives at comparable high technology companies, including other publicly-held advanced materials and advanced technologies companies, and the Company's general compensation practices.

**Cash Bonuses**

Discretionary cash bonuses for executive officers are directly tied to achievement of specified goals of the Company and are a function of the criteria which the Compensation and Governance Committee believes appropriately take into account the specific areas of responsibility of the particular officer.

**Stock Options**

Periodically, the Compensation and Governance Committee also grants stock options to executive officers in order to provide a long-term incentive which is directly tied to the performance of the Company's stock. These options provide an incentive to maximize stockholder value because they reward option holders only if stockholders also benefit. The exercise price of these stock options is the fair market of the Common Stock on the date of grant. In general, the options vest in equal annual installments over a three-year period beginning one year after the date of grant, in certain instances the Board of Directors (or the Compensation and Governance Committee) can adjust the vesting period for performance-based options. Vesting periods are used to retain key employees and to emphasize the long-term aspect of contribution and

performance. In making stock option grants to executives, including Mr. Cross, in 2002, the Compensation and Governance Committee considered a number of factors, including the performance of such persons, the Company's performance in 2001, achievement of specific delineated goals, the responsibilities and the relative position of such persons within the



Company, the compensation of executives in comparable high technology companies and the number of stock options each such person currently possesses.

#### **Compliance with Section 162(m)**

The Compensation and Governance Committee currently intends for all compensation paid to the Named Officers to be tax deductible to the Company pursuant to Section 162(m) of the Internal Revenue Code of 1986, as amended ( Section 162(m) ). Section 162(m) provides that compensation paid to the Named Officers in excess of \$1,000,000 cannot be deducted by the Company for Federal income tax purposes unless, in general, (1) such compensation is performance-based, established by a committee of outside directors and objective, and (2) the plan or agreement providing for such performance-based compensation has been approved in advance by stockholders. The Compensation and Governance Committee believes that the requirements of Section 162(m) are uncertain at this time and may arbitrarily impact the Company. In the future, the Compensation and Governance Committee may determine to adopt a compensation program that does not satisfy the conditions of Section 162(m) if in its judgment, after considering the additional costs of not satisfying Section 162(m), such program is appropriate.

#### **Compensation and Governance Committee Interlocks and Insider Participation**

Pursuant to a consulting agreement effective as of October 29, 1998, and prior to his appointment as Chairman of the Board of Directors, Donald S. Perkins, who is Chairman of the Compensation and Governance Committee, was engaged by the Company to provide additional services in connection with the Company's organizational restructuring and refocusing. In consideration for such services, Mr. Perkins was granted options to purchase 25,000 shares of Common Stock at an exercise price of \$3.50 per share. Such options vest in five equal annual installments beginning on October 29, 1999; provided, however, that unvested options will expire upon Mr. Perkins no longer providing such services to the Company.

**Item 12. Security Ownership of Certain Beneficial Owners and Management**

**SECURITY OWNERSHIP OF MANAGEMENT  
AND PRINCIPAL STOCKHOLDERS**

The following table sets forth, as of March 31, 2003 certain information with respect to the beneficial ownership of the Common Stock by (i) each person known by the Company to own beneficially more than 5% of the outstanding shares of Common Stock, (ii) each Company director, (iii) each of the Named Officers and (iv) all Company executive officers and directors as a group.

<u>Name and Address</u>	<u>Number of Shares Beneficially Owned (1)</u>	<u>Percent of Shares Beneficially Owned</u>
Spurgeon Corporation	3,018,343(2)	19.9%
Bradford T. Whitmore	3,491,155(3)	23.0%
Grace Investments, Ltd.	1,069,750(4)	7.0%
Grace Brothers, Ltd.	1,948,593(5)	12.8%
Masters Capital Management, LLC	1,000,000(6)	6.6%
Joseph E. Cross	356,498(7)	2.3%
James A. Henderson	11,743(8)	*
Richard W. Siegel, Ph.D.	277,391(9)	1.8%
James McClung	41,437(10)	*
Jerry Pearlman	34,614(11)	*
Donald S. Perkins	68,478(12)	*
Gina R. Kritchevsky, Ph.D.	172,667(13)	1.1%
Daniel S. Bilicki	194,999(14)	1.3%
Donald J. Freed, Ph.D.	46,583(15)	*
Richard W. Brotzman, Ph.D.	232,963(16)	1.5%
All executive officers and directors as a group (12 persons)	1,522,152(17)	10.0%

\*Denotes beneficial ownership of less than one percent.

- (1) Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission (the Commission). Unless otherwise indicated below, the persons in the above table have sole voting and investment power with respect to all shares of Common Stock shown as beneficially owned by them.
- (2) Includes 1,948,593 shares of Common Stock held by Grace Brothers, Ltd. and 1,069,750 shares of Common Stock held by Grace Investments, Ltd. Spurgeon Corporation is a general partner of both Grace entities and shares voting and investment power with respect to the shares of Common Stock held by such Grace entities. This information is based on information reported on Form 4 filed on March 14, 2003 with the Commission by Spurgeon Corporation. The address of the stockholder is 1560 Sherman Avenue, Suite 900, Evanston, Illinois 60201.
- (3) Includes 1,948,593 shares of Common Stock held by Grace Brothers, Ltd., 1,069,750 shares of Common Stock held by Grace Investments, Ltd. and 472,812 shares held by Bradford T. Whitmore. Mr. Whitmore is a general partner of Grace Brothers, Ltd. and is the sole owner of an entity which is a general partner of Grace Investments, Ltd. In such capacities, Mr. Whitmore shares voting and investment power with respect to the shares of Common Stock held by the Grace entities. This information is based on information reported on Form 4 filed on March 14,



- 2003 with the Commission by Mr. Whitmore. The address of the stockholder is 1560 Sherman Avenue, Suite 900, Evanston, Illinois 60201.
- (4) This information is based on information reported on Form 4 s filed on March 14, 2003 with the Commission by Spurgeon Corporation and Bradford T. Whitmore. The address of the stockholder is 1560 Sherman Avenue, Suite 900, Evanston, Illinois 60201.
  - (5) This information is based on information reported on Form 4 s filed on March 14, 2003 with the Commission by Spurgeon Corporation and Bradford T. Whitmore. The address of the stockholder is 1560 Sherman Avenue, Suite 900, Evanston, Illinois 60201.
  - (6) This information is based on information reported on Form SC 13G/A filed on February 11, 2003 with the Commission by Masters Capital Management, LLC. The address of the stockholder is 17 Church Street, 3<sup>rd</sup> Floor, Christiansted, VI 00820.
  - (7) Consists in part of 354,998 shares of Common Stock issuable upon exercise of options exercisable currently or within 60 days of March 31, 2003.
  - (8) Consists in part of 3,333 shares of Common Stock issuable upon exercise of options exercisable currently or within 60 days of March 31, 2003.
  - (9) Includes 76,864 shares of Common Stock issuable upon exercise of options exercisable currently or within 60 days of March 31, 2003.
  - (10) Includes 12,666 shares of Common Stock issuable upon exercise of options exercisable currently or within 60 days of March 31, 2003.
  - (11) Includes 12,666 shares of Common Stock issuable upon exercise of options exercisable currently or within 60 days of March 31, 2003.
  - (12) Includes 26,334 shares of Common Stock issuable upon exercise of options exercisable currently or within 60 days of March 31, 2003.
  - (13) Includes 169,667 shares of Common Stock issuable upon exercise of options exercisable currently or within 60 days of March 31, 2003.
  - (14) Includes 189,999 shares of Common Stock issuable upon exercise of options exercisable currently or within 60 days of March 31, 2003.
  - (15) Consists of 44,583 shares of Common Stock issuable upon exercise of options exercisable currently or within 60 days of March 31, 2003.
  - (16) Consists of 232,963 shares of Common Stock issuable upon exercise of options exercisable currently or within 60 days of March 31, 2003.
  - (17) Includes 1,207,552 shares of Common Stock issuable upon exercise of options exercisable currently or within 60 days of March 31, 2003.

**Equity Compensation Plan Information**

The following table gives information about our common stock that may be issued upon the exercise of options, warrants, and rights under all of our existing compensation plans as of December 31, 2002, including the 1992 Amended and Restated Stock Option Plan and the 2001 Equity Compensation Plan.

<u>Plan Category</u>	<u>(a) Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights</u>	<u>(b) Weighted Average Exercise Price of Outstanding Options, Warrants, and Rights</u>	<u>(c) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a))</u>	<u>(d) Total of Securities Reflected in Columns (a) and (c)</u>
Plans Approved by Shareholders	2,089,350(1)	\$ 5.49	588,000(2)	2,677,350
Plans Not Approved by Shareholders	None	\$	None	

- (1) Consists of the 1992 Amended and Restated Stock Option Plan, the 2001 Equity Compensation Plan, and shares of authorized but unissued Preferred Stock.
- (2) Consists of shares available for future issuance under the 2001 Equity Compensation Plan.

**Item 13. Certain Relationships and Related Transactions.**

See Item 11 above.

**PART IV**

**Item 15. Exhibits, Financial Statement Schedules and Reports on Form 8-K**

(a) The following exhibits are filed with this Form 10-K/A:

10.23\* Cooperation Agreement dated June 23, 2002 between the Company and Rodel, Inc.

99.1 Certification of the Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, filed herewith.

99.2 Certification of the Acting Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, filed herewith.

\* This exhibit, previously filed as Exhibit 10.23 to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2002, is being resubmitted pursuant to a request from the Commission. Confidentiality requested, confidential portions have been omitted and filed separately with the Commission as required by Rule 24b-2.

(b) Reports on Form 8-K:

None.

**SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) 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, on the 23rd day of May, 2003.

**NANOPHASE TECHNOLOGIES CORPORATION**

By: /s/ Joseph Cross  
Joseph Cross

President and Chief Executive Officer

**CERTIFICATIONS**

Certification of the Chief Executive Officer

Pursuant to Section 302

of the Sarbanes-Oxley Act of 2002

I, Joseph Cross, certify that:

1. I have reviewed this amendment no. 1 to annual report on Form 10-K/A of Nanophase Technologies Corporation;

2. Based on my knowledge, this annual 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 annual report;

3. Based on my knowledge, the financial statements, and other financial information included in this annual 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 annual report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:

(a) designed such disclosure controls and procedures to ensure that material information relating to the registrant is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;

(b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and

(c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;

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



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(a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and

(b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and

6. The registrant's other certifying officers and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: May 23, 2003

/s/ JOSEPH E. CROSS

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Joseph E. Cross

Chief Executive  
Officer

Certification of the Chief Financial Officer

Pursuant to Section 302

of the Sarbanes-Oxley Act of 2002

I, Jess Jankowski, certify that:

1. I have reviewed this amendment no. 1 to annual report on Form 10-K/A of Nanophase Technologies Corporation;

2. Based on my knowledge, this annual 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 annual report;

3. Based on my knowledge, the financial statements, and other financial information included in this annual 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 annual report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:

(a) designed such disclosure controls and procedures to ensure that material information relating to the registrant is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;

(b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and

(c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;

5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, 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 in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and

(b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and

6. The registrant's other certifying officers and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: May 23, 2003

/s/ JESS A. JANKOWSKI

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Jess A. Jankowski

Acting Chief Financial  
Officer