

NANOPHASE TECHNOLOGIES CORPORATION

Form S-3/A

September 06, 2002

Table of Contents

As filed with the Securities and Exchange Commission on September 6, 2002

Registration No. 333-90326

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, DC 20549

**AMENDMENT NO. 1
TO
FORM S-3
REGISTRATION STATEMENT**
*Under
THE SECURITIES ACT OF 1933*

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
(630) 771-6700**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**JOSEPH E. CROSS, CHIEF EXECUTIVE OFFICER
NANOPHASE TECHNOLOGIES CORPORATION
1319 Marquette Drive
Romeoville, Illinois 60446
(630) 771-6700**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:
**JOHN L. EISEL, ESQ.
GEOFFREY C. COCKRELL, ESQ.
Wildman, Harrold, Allen & Dixon
225 West Wacker Drive
Chicago, Illinois 60606-1229
(312) 201-2000**

Edgar Filing: NANOPHASE TECHNOLOGIES CORPORATION - Form S-3/A

(312) 201-2555 (fax)

Approximate date of commencement of proposed sale to the public: From time to time on and after the effective date of this registration statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box.

THE COMPANY HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE COMPANY SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(A) OF THE SECURITIES ACT OF 1933 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE SECURITIES AND EXCHANGE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(A), MAY DETERMINE.

Table of Contents

THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. THE SELLING STOCKHOLDERS NAMED IN THIS PROSPECTUS MAY NOT SELL THESE SECURITIES UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THE PROSPECTUS IS NOT AN OFFER TO SELL THESE SECURITIES AND IT IS NOT SOLICITING AN OFFER TO BUY THESE SECURITIES IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED.

SUBJECT TO COMPLETION, DATED SEPTEMBER 6, 2002

PROSPECTUS

1,370,000 Shares

NANOPHASE TECHNOLOGIES CORPORATION

Common Stock

This prospectus relates to resales of 1,370,000 shares of our common stock or interests therein issuable from time to time.

These shares of common stock were issued by Nanophase to the following persons and entities, who we refer to in this prospectus as the selling stockholders listed on page 13 of this prospectus.

This offering is not being underwritten. We will not receive any proceeds from the sale of these shares. The selling stockholders identified in this prospectus (which term as used herein includes their pledgees, donees, transferees or other successors-in-interest) may offer the shares or interests therein from time to time through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices.

Our common stock is traded on The Nasdaq National Market under the ticker symbol **NANX**. On September 5, 2002, the closing sale price of our common stock, as reported by Nasdaq, was \$4.43 per share. You are urged to obtain current market quotations for our common stock.

The common stock offered hereby involves risks. See **risk factors** beginning on page 5 of this prospectus.

THE SECURITIES OFFERED OR SOLD UNDER THIS PROSPECTUS HAVE NOT BEEN APPROVED BY THE SEC OR ANY STATE SECURITIES COMMISSION, NOR HAVE THESE ORGANIZATIONS DETERMINED THAT THIS PROSPECTUS IS ACCURATE OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is _____, 2002.

Table of Contents

TABLE OF CONTENTS

| | |
|--|----|
| <u>FORWARD-LOOKING STATEMENTS</u> | 3 |
| <u>PROSPECTUS SUMMARY</u> | 4 |
| <u>WHERE YOU CAN FIND MORE INFORMATION</u> | 5 |
| <u>RISK FACTORS</u> | 5 |
| <u>USE OF PROCEEDS</u> | 13 |
| <u>SELLING STOCKHOLDERS</u> | 13 |
| <u>PLAN OF DISTRIBUTION</u> | 14 |
| <u>LEGAL MATTERS</u> | 16 |
| <u>EXPERTS</u> | 16 |

FORWARD-LOOKING STATEMENTS

This prospectus and the documents it incorporates by reference contain forward-looking statements. Forward-looking statements relate to future periods and include descriptions of our plans, objectives, and underlying assumptions for future operations, our market opportunities, our acquisition opportunities, and our ability to compete.

Generally, may, will, expect, believe, estimate, anticipate, intend, continue and similar words identify forward-looking statements. Forward-looking statements are based on our current expectations and are subject to risks and uncertainties that can cause actual results to differ materially. For information on these risks and uncertainties, see the Risk Factors.

We urge you to consider these factors carefully in evaluating the forward-looking statements contained in this prospectus. Forward-looking statements are made only as of the date of this prospectus. We do not intend, and undertake no obligation, to update these forward-looking statements.

As used in this prospectus, Company, Nanophase, we, us and our refer to Nanophase Technologies Corporation and its affiliates.

Table of Contents

PROSPECTUS SUMMARY

The following summary is qualified in its entirety by reference to, and should be read in conjunction with, the more detailed information appearing elsewhere in this prospectus or incorporated by reference herein. Investors should also carefully consider the information set forth under Risk Factors beginning on page 5.

We are in the business of commercializing the emerging technology of nanocrystalline materials, i.e. materials with a particle size less than 100 billionth of a meter. Nanocrystalline materials often exhibit unusual, and many times valuable, behavior in applications compared to normal materials. Nanocrystalline technology allows engineering of materials at the smallest, or most fundamental manufactured, level, yet allowing increased material performance.

We have two core patented and proprietary technologies to engineer nanomaterials for applications:

The manufacture of nanocrystalline powders such as metals, oxides, carbides and nitrides in commercial volume and quality at two ISO 9001 certified facilities to USP (United States Pharmacopoeia as promulgated by the US Food and Drug Administration) and cGMP standards (current good manufacturing practices as promulgated by the US Food and Drug Administration);

The capability to coat, or partially coat, each individual nanoparticle with various materials and then attach specific chemical properties to allow nanomaterials to be dispersed in a wide range of media.

We apply our technologies to engineer nanocrystalline material solutions for both processes and end products. Our technologies are capable of modifying the electrical, chemical, and optical properties of materials, compared to normal materials, as well as the three dimensional structural spacing of materials in a matrix.

While markets continue to emerge for nanotechnology, and are forecasted to do so for the next 10-20 years, our current markets include healthcare, ceramics, catalysts, various coatings, and electronic applications. In many of these applications, our nanomaterials display unique performance attributes. We pursue new vertical market applications through a consultative, solution-based approach focusing on lead customers in targeted markets. As we develop application solutions, we market these solutions, and derivations thereof, to similar applications in horizontal markets.

We are engaged in ongoing research and application development for and with companies on a global basis, which have enhanced our intellectual property. We license technology to other companies, license technology from companies, and create technology in joint arrangements with companies. In some instances, we patent applications for nanocrystalline materials in various industries. We are developing additional nanotechnology processes, complementary technologies, and continually improving our core technologies, including manufacturing operations.

Table of Contents

Common Stock offered by Selling

| | |
|-----------------------------------|--|
| Stockholders | 1,370,000 shares |
| Use of Proceeds | We will not receive any proceeds from the sale of shares in this offering. |
| The Nasdaq National Market symbol | NANX |

WHERE YOU CAN FIND MORE INFORMATION ABOUT US

We file annual, quarterly and special reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's web site at <http://www.sec.gov>. You may also read and copy any document we file at the SEC's public reference rooms in Washington, D.C., New York, New York and Chicago, Illinois. Please call the SEC at 1 800 732 0330 for further information on the public reference rooms.

The SEC allows us to incorporate by reference the information we file with them, which means that we can disclose important information to you by referring you to these documents. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below (and any amendments thereto) and any future filings made with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 until the offering of our common stock under this registration statement is completed or withdrawn:

Annual Report on Form 10-K for the fiscal year ended December 31, 2001; and

Quarterly Reports on Form 10-Q for the periods ended March 31, 2002 and June 30, 2002; and

The description of our common stock contained in our registration statement on Form 8-A, including any amendments or reports filed to update such information.

To obtain a copy of these filings at no cost, you may telephone us at 630-771-6700 or write us at Investor Relations Department, Nanophase Technologies Corporation, 1319 Marquette Drive, Romeoville, Illinois 60446.

RISK FACTORS

This offering involves a high degree of risk. Before making an investment decision, you should carefully consider the following risks and the risks set forth in the supplement which accompanies this prospectus and in our periodic reports on Form 10-K and Form 10-Q which have been filed with the SEC and are incorporated by reference into this prospectus. The trading price of our common stock could decline due to any of these risks, and you could lose all or part of your investment. You also should refer to the other information appearing elsewhere in this prospectus, or incorporated by reference into this prospectus.

We have a limited operating history and face 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.

Table of Contents

Because of our limited operating history and the early stage of development of our market, we have limited insight into trends that may emerge and 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.

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 \$5.12 million in 1999, \$4.52 million in 2000 and \$5.74 million in 2001. As of June 30, 2002, we had an accumulated deficit of approximately \$37.50 million and presently expect to continue to incur losses on an annual basis through at least the end of 2003. 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 on a quarterly basis.

Table of Contents

We depend on a small number of customers for a high percentage of our sales, and the loss of 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 without 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.

Sales to BASF Corporation and C.I. Kasei, a division of Itochu Corporation, accounted for approximately 85% of total revenue for the year ended December 31, 2001, and sales to the same two customers accounted for approximately 79% of total revenue in 2000. For the years ended December 31, 2001 and 2000, a single customer accounted for 76% and 69% of our total revenue, respectively. If we were to lose one or both of these customers, then results of operations would be materially harmed. Additional details may be found in the attached Form 10-K.

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. Our largest customer, BASF, currently accounts for the majority of revenues. We view this customer as a single leg of the business and plan on adding more customers of similar magnitude over the next several years. Given the unique 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. Our business is currently operating at a positive gross profit and we expect to remain at a positive annual gross profit level for the foreseeable future. We also expect additional volume of revenue to have a positive impact on gross profit as we continue to make gains in operating efficiencies. 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, abrasion-resistant coatings for flooring, personal care and catalytic converters. 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.

Table of Contents

We depend on collaborative development relationships with our customers.

We have established, and will continue to pursue, collaborative relationships with many of our customers. 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. We can make no assurance that our customers will continue in these collaborative development relationships or that they will not enter into collaborative development relationships with our competitors. Additionally, these customers may require a share of control of these collaborative programs. These customers may also try to limit our ability to license our technology to others or limit our ability to engage in certain product development or marketing activities. These relationships can usually be terminated unilaterally by customers. If we are unable to initiate or sustain such collaborative relationships, then we may be unable to independently develop, manufacture or market our current and future nanocrystalline materials or applications.

We have limited manufacturing capacity and experience.

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 have limited experience in high-volume manufacturing and have incurred significant start-up costs as we began to manufacture substantial quantities of nanocrystalline materials. As production increases, we will need to increase the efficiency of our manufacturing operations significantly to reach production goals. In addition, we may need to continue to expand its current facilities or obtain additional facilities in the future. We can make no assurance that we will be able to make the transition to high-volume production successfully. Any material disruption in our operations could have a material adverse effect on our business, results of operations and financial condition. While we maintain customary property and business interruption insurance, this insurance may not adequately compensate us for all losses that we may incur.

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 and copyright law, trade secret protection and confidentiality or license agreements with our employees, customers, suppliers and others. We can make no assurance that our means of protecting our intellectual property rights in the United States or abroad will be adequate or that others, including our competitors, will not use our proprietary technology without our consent. We can also make no assurance that we will receive the necessary patent protection for any applications pending with the U.S. Patent and Trademark Office or that any of the patents that we currently own or license will be sufficient to keep competitors from using our materials or processes. In addition, we can make no assurance that any patents that we currently own or license will be held valid if subsequently challenged by others or that others will not 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.

Furthermore, litigation may be necessary to enforce our intellectual property rights, to protect our trade secrets, to determinate the validity and scope of the proprietary rights of others, or to defend against

Table of Contents

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, we can make no assurance that we will refrain from actions that might diminish this quality and value.

Recently, many patents have been granted in the United States involving business methods relating to e-commerce. 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.

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 will likely commit substantial resources to expand our commercial manufacturing capacity and to develop our technologies and product applications. We can make no assurance that our development efforts will not be rendered obsolete by the research efforts and technological advances of others or that other advanced materials will not prove more advantageous than those we produce.

We rely on distribution agreements with third parties.

We currently have arrangements for distribution of many of our nanocrystalline materials and expects to enter into additional distribution agreements for the marketing of our materials. Our future success will depend in part on our continued relationships with distributors, our ability to enter into other similar distribution arrangements on favorable terms, the continuing interest of our distributors in current and potential product applications and the distributors' success in marketing. We can make no assurance that we will be able to enter into or maintain marketing and distribution arrangements with third parties on financially acceptable terms. If we are unable to establish or maintain these arrangements, we will have difficulty marketing our products in a cost effective manner and our business will suffer.

Table of Contents

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, we can make no assurance that other companies will not develop and introduce new or competitive products. We can also make no assurance that our competitors will not 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.

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. We may seek additional funding through public or private financing and through contracts with government or other companies. We can make no assurance that additional financing will 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 enter into loan agreements or sell our debt or equity securities. To the extent that we enter into new loan agreements, or issue new debt securities, 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, you may face economic dilution if the future equity securities are sold at a lower price than your purchase price in this offering, and, to the extent that you do not participate in such future offerings, you would also face dilution of your percentage ownership of us.

We currently have a supply agreement with BASF that contains provisions which could potentially result in a mandatory transfer of technology and sale of production equipment to BASF providing capacity sufficient to meet BASF's production needs. The transfer and related sale would be triggered only in the event that 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 liquid investments are less than \$4,000,000,
- any lender accelerates any debt in excess of \$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 depreciated cost.

We believe that we have complied with all contractual requirements and that we have not had a triggering event. We further believe that the proceeds of the May 29, 2002 private placement provide sufficient cash reserves to avoid the first triggering event referenced above. If a triggering event were to occur and BASF elected to proceed with the transfer 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 the Company's 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 replace and train quickly. 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 would effectively reduce our size and staffing to a point where we could remain a going concern. Such a change would make it unlikely that, without unforeseen funding, we could continue to grow at anything other than an incremental rate.

We depend on key personnel.

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 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, 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.

Table of Contents

We face potential product liability risks.

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 medical implants and cosmetic and skin-care products, we can make no assurance that these claims will not also be asserted against us. We currently maintain insurance coverage in the amount of \$10 million for product liability claims, which may or may not prove to be sufficient. We may incur significant costs in defending or settling product liability claims. Even if we are able to settle these claims, we can make no assurance that any settlement would be on acceptable terms. The costs related to these claims could have a material adverse effect on our business, results of operations and financial condition.

We are subject to governmental regulations.

Current and future laws and regulations may require us to make substantial expenditures for preventive or remedial action. We can make no assurance that our operations, business or assets will not be materially and adversely affected by governmental interpretation and enforcement of current or future environmental 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 an environmental event could exceed 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. We can make no assurance, however, that we will not have to incur significant costs in defending or settling future claims of alleged violations of governmental regulations or that these regulations will not 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. As a result, we are required to adhere to the requirements of the FDA and the regulations of similar governmental authorities in 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.

Table of Contents

In particular, our board of directors is authorized to issue up to 24,588 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.

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.

We are currently involved in litigation.

In November 2001, George Tatz, a purchaser of 200 shares of our Common Stock, filed a complaint in the United States District Court, alleging that we and Joseph Cross, our president and chief executive officer, are liable under the federal Securities Exchange Act of 1934. The complaint asserted that defendants made supposedly fraudulent material misstatements and omissions of material fact in connection with our public disclosures concerning our dealings with one British customer. The supposed misrepresentations in the pending suit concern our purportedly improper booking of revenue from this British customer. The complaint alleged that the action should be maintained as a plaintiff class action on behalf of certain persons who purchased shares of our Common Stock from April 5, 2001 through October 24, 2001. The complaint sought relief including unquantified compensatory damages. Defendants filed a motion to dismiss the complaint in December 2001. Rather than respond to that motion, plaintiff filed an amended complaint in March 2002. The amended complaint alleges that we and four of our officers (Joseph Cross; Daniel Bilicki, our vice president of sales and marketing; Jess Jankowski, our acting chief financial officer; and Gina Kritchevsky, our chief technology officer) are liable under the federal Securities Exchange Act of 1934 based on allegations similar to those in the initial complaint, and supposed misrepresentations concerning the revenue reported under a purchase order with the British customer. The amended complaint alleges the same putative class, and seeks the same relief, as in plaintiff's initial complaint. Defendants filed a motion to dismiss the amended complaint on April 12, 2002. Although we believe both that the allegations of the amended complaint are without merit and that the defendants have sufficient directors and officers liability insurance to cover any liabilities ultimately arising from the claims asserted in the amended complaint, it is not feasible for us to predict at this time the outcome of this litigation or whether the resolution could have a material adverse effect on our results of operations or financial condition. As a result, this and other litigation to which we may become subject, even if settled or resolved favorably, could harm our business.

Dilutive Effect of Private Placement.

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. The issuance of stock at below the 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.

Table of Contents

USE OF PROCEEDS

The selling stockholders will receive all of the proceeds from the sale of the common stock offered by this prospectus. We will not receive any proceeds from the sale of the shares of common stock offered by the selling stockholders pursuant to this prospectus. The selling stockholders will pay any underwriting discounts and commissions and expenses incurred by the selling stockholder for brokerage, accounting or tax services or any other expenses incurred by the selling stockholders in disposing of the shares of common stock, except as described below. We will bear all other costs, fees and expenses incurred in effecting the registration of the shares of common stock covered by this prospectus, including without limitation, all registration and filing fees, Nasdaq listing fees, fees and expenses of our counsel and our accountants.

The selling stockholders received the common stock offered by this prospectus in a private placement from us on May 29, 2002 at a purchase price of \$5.00 per share. The net proceeds to us from the private placement were approximately \$6.2 million. We are using the proceeds of the private placement for working capital needs expected to increase as sales volume grows and for needed capital expenditures.

SELLING STOCKHOLDERS

The shares of common stock or interests therein offered pursuant to this prospectus have been issued to the selling stockholders (or their permitted assignees) directly by us. All 1,370,000 shares of our common stock covered by this prospectus were issued to certain selling stockholders in a private placement completed on May 29, 2002 pursuant to an exemption from registration contained in Regulation D promulgated under Section 4(2) of the Securities Act.

On May 29, 2002, we completed the sale of 1,370,000 shares of common stock in a private placement to selected institutional and accredited investors, resulting in gross proceeds of \$6,850,000. We granted registration rights to the selling stockholders with respect to the resale of shares of our common stock issued to the selling stockholders.

In accordance with the registration rights granted to the selling stockholders, we have filed with the Securities and Exchange Commission a registration statement on Form S-3, of which this prospectus forms a part, with respect to the resale or other disposal of the shares of common stock offered by this prospectus. We have agreed to prepare and file amendments and supplements to the registration statement to the extent necessary to keep the registration statement effective until the shares are no longer required to be registered for resale thereof by the selling stockholders.

The actual number of shares of common stock covered by this prospectus, and included in the registration statement of which this prospectus is a part, includes additional shares of common stock that may be issued as a result of stock splits, stock dividends, or similar transactions.

The following table sets forth certain information with respect to the beneficial ownership of shares of our common stock by the selling stockholders as of September 6, 2002 and the number of shares which may be offered pursuant to this prospectus for the account of each of the selling stockholders from time to time. Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission and includes voting or investment power with respect to shares, as well as any shares as to which the selling stockholders have the right to acquire beneficial interest within 60 days after September 6, 2002, through the exercise or conversion of any stock option, warrant, preferred stock or other right. Except as described in the footnotes to the table, to the best of our knowledge, none of the selling stockholders has had any position, office or other material relationship with our Company or any of our affiliates.

Table of Contents

| Selling Stockholders | Number of Shares Beneficially Owned Prior to Offering | Maximum Number of Shares Which May Be Sold in This Offering | Number of Shares Beneficially Owned After the Offering (1) | Percentage of Class Beneficially Owned After the Offering (1) |
|-------------------------------|--|--|---|--|
| William R. Gurtin | 155,250 | 20,000 | 135,250 | * |
| Stephen Albright Springer | 197,200 | 50,000 | 147,200 | * |
| Marlin Fund, L.P. | 244,900 | 244,900 | 0 | * |
| Marlin Fund II, L.P. | 39,500 | 39,500 | 0 | * |
| Marlin Fund Offshore, Limited | 505,600 | 505,600 | 0 | * |
| Duck Partners, L.P. | 10,000 | 10,000 | 0 | * |
| Bradford T. Whitmore | 3,286,754(2) | 200,000 | 2,786,754(3) | 18.12% |
| Grace Brothers, Ltd. | 1,948,593 | 300,000 | 1,648,593 | 10.91% |

* Less than one percent.

- (1) Assumes that each selling stockholder will sell all shares of common stock offered pursuant to this prospectus, but not any other shares of common stock beneficially owned by such stockholder.
- (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. 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.
- (3) Includes 1,648,593 shares of Common Stock held by Grace Brothers, Ltd. and 1,069,750 shares of Common Stock held by Grace Investments, Ltd. 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.

PLAN OF DISTRIBUTION

The shares covered by this prospectus may be offered and sold from time to time by the selling stockholders. The term selling stockholders includes donees, pledgees, transferees or other successors-in-interest selling shares received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer. The selling stockholders will act independently of us in making decisions with respect to the timing, manner and size of each sale. Such sales may be made directly to purchasers or through underwriters, broker-dealers or agents, who may receive compensation in the form of discounts, concessions or commissions from the selling stockholders. These discounts, concessions or commissions as to any particular underwriter, broker-dealer or agent may be in excess of those customarily received in the types of transactions involved.

Any or all of the shares offered by the selling stockholders may be offered for sale and sold by, or on behalf of, the selling stockholders from time to time in varying amounts, including in block transactions, on the Nasdaq Stock Market, or the over-the-counter market, in privately negotiated transactions, or otherwise, at prices prevailing in such market or as may be negotiated at the time of the sale. The shares may be sold by the selling stockholders directly to one or more purchasers, through

Table of Contents

agents designated from time to time or to or through broker-dealers designated from time to time. In the event the shares are publicly offered through broker-dealers or agents, the selling stockholders may enter into agreements with respect thereto. Such broker-dealers or agents may receive compensation in the form of discounts, concessions or commissions from the selling stockholders, and any such broker-dealers or agents that participate in the distribution of the shares may be deemed to be underwriters within the meaning of the Securities Act, and any profit on the sale of the shares by them and any discounts and commissions might be deemed to be underwriting discounts or commissions under the Securities Act. Any such broker-dealers and agents may engage in transactions with, and perform services for, the Company. At the time a particular offer of shares is made by the selling stockholders, to the extent required, a prospectus supplement will be distributed which will set forth the aggregate number of shares being offered, and the terms of the offering, including the public offering price thereof, the name or names of any broker-dealers or agents, any discounts, commissions and other items constituting compensation from, and the resulting net proceeds to, the selling stockholders.

In order to comply with the securities laws of certain states, sales of shares offered hereby to the public in such states may be made only through broker-dealers who are registered or licensed in such states. Sales of shares offered hereby must also be made by the selling shareholders in compliance with other applicable state securities laws and regulations.

The selling stockholders and any underwriters, broker-dealers or agents that participate in the sale of the common stock or interests therein may be underwriters within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. Selling stockholders who are underwriters within the meaning of Section 2(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act. The selling stockholders have acknowledged that they understand their obligations to comply with the provisions of the Exchange Act and the rules thereunder relating to stock manipulations, particularly Regulation M.

We will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

In addition, any shares covered by this prospectus that qualify for sale pursuant to Rule 144 of the Securities Act may be sold under Rule 144 rather than pursuant to this prospectus.

To the extent required, the shares of our common stock to be sold, the names of the selling stockholders, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

We have agreed with the selling stockholders to keep the registration statement of which this prospectus constitutes a part effective until the earlier of (1) the date all of the shares covered by this prospectus have been sold and (2) the date on which all of the shares covered by this prospectus may be sold without restriction or limitation.

Table of Contents

LEGAL MATTERS

Wildman, Harrold, Allen & Dixon, Chicago, Illinois is giving an opinion of the validity of the issuance of the securities offered in this prospectus.

EXPERTS

The financial statements of Nanophase Technologies Corporation as of December 31, 2000 and for the two years in the period ended December 31, 2000 appearing in Nanophase Technologies Corporation's Annual Report (Form 10-K) for the year ended December 31, 2001, have been audited by Ernst & Young LLP, independent auditors, as set forth in their report thereon included therein and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

The financial statements of Nanophase Technologies Corporation as of December 31, 2001 appearing in Nanophase Technologies Corporation's Annual Report (Form 10-K) for the year ended December 31, 2001, have been audited by McGladrey & Pullen, LLP, independent auditors, as set forth in their report thereon included therein and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

Table of Contents**PART II.****INFORMATION NOT REQUIRED IN PROSPECTUS****Item 14. Other Expenses of Issuance and Distribution**

| | |
|-----------------------------|----------|
| SEC Registration Fee | \$ 665 |
| Accounting Fees and Expense | \$13,000 |
| Legal Fees and Expenses | \$10,000 |
| Miscellaneous | \$ 0 |
| Total | \$23,665 |

All fees and expenses other than the SEC registration fee are estimated. The expenses listed above will be paid by the Company.

Item 15. Indemnification of Officers and Directors

Under Section 145 of the General Corporation Law of the State of Delaware (the "DGCL"), a corporation may indemnify its directors, officers, employees and agents and its former directors, officers, employees and agents and those who serve, at the corporation's request, in such capacities with another enterprise, against expenses (including attorney's fees), as well as judgments, fines and settlements in nonderivative lawsuits, actually and reasonably incurred in connection with the defense of any action, suit or proceeding in which they or any of them were or are made parties or are threatened to be made parties by reason of their serving or having served in such capacity. The DGCL provides, however, that such person must have acted in good faith and in a manner he or she reasonably believed to be in (or not opposed to) the best interests of the corporation and, in the case of a criminal action, such person must have had no reasonable cause to believe his or her conduct was unlawful. In addition, the DGCL does not permit indemnification in an action or suit by or in the right of the corporation, where such person has been adjudged liable to the corporation, unless, and only to the extent that, a court determines that such person fairly and reasonably is entitled to indemnity for costs the court deems proper in light of liability adjudication. Indemnity is mandatory to the extent a claim, issue or matter has been successfully defended.

Our certificate of incorporation provides that to the fullest extent permitted by Delaware law, it shall indemnify and advance indemnification expenses to all of its directors and officers. In addition, the certificate of incorporation provides that to the fullest extent permitted by Delaware law, a director shall not be liable to Nanophase Technologies Corporation or its stockholders for breach of fiduciary duty as a director.

Nanophase Technologies has entered into indemnification agreements with each director providing for indemnification to the fullest extent permitted by Delaware law.

Item 16. List of Exhibits

(a) Exhibits

- 4.1 Specimen stock certificate representing Common Stock, incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-1 (File No. 333-36937) (the "IPO S-1").

Table of Contents

| | |
|------|--|
| 4.2 | Form of Warrants, incorporated by reference to Exhibit 4.2 to the IPO S-1. |
| 4.3 | Rights Agreement dated as of October 28, 1998 by and between the Company and LaSalle National Bank, incorporated by reference to Exhibit 1 to the Company's Registration Statement on Form 8-A, filed October 28, 1998. |
| 4.4 | Certificate of Designation of Series A Junior Participating Preferred Stock incorporated by reference to Exhibit 4.4 to the Company's Annual Report on Form 10-K for the year ended December 31, 1998 (the 1998 10-K). |
| 4.5 | Amendment to Rights Agreement dated August 1, 2001 between the Company and LaSalle National Association, as Rights Agent, incorporated by reference to Exhibit 4.5 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2001. |
| 4.6 | 2001 Nanophase Technologies Corporation Equity Compensation Plan, incorporated by reference to Exhibit 4.3 to the Company's Registration Statement on Form S-8 (File No. 333-74170). |
| 4.7* | Second Amendment to Rights Agreement dated May 24, 2002 between the Company and LaSalle National Association, as Rights Agent. |
| 5.1* | Opinion of Wildman, Harrold, Allen & Dixon |
| 23.1 | Consent of McGladrey & Pullen, LLP |
| 23.2 | Consent of Ernst & Young LLP |
| 23.3 | Consent of Wildman, Harrold, Allen & Dixon (included in Exhibit 5.1) |
| 24 | Power of Attorney (included on signature page) |

* Filed previously.

(b) Financial Statement Schedule

None

Item 17. Undertakings

The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement: (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933; (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the

Table of Contents

Calculation of Registration Fee table in the effective registration statement; (iii) To include any material information with respect to the distribution not previously disclosed in the registration statement or any material change to such information in the registration statement; provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) of this section do not apply if the registration statement is on Form S-3 or Form S-8, and the information required to be included in a post-effective amendment by those paragraphs is conformed in periodic reports filed by the Registrant pursuant to Section 13 or Section 15(d) of the 1934 Act that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof; and

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

The undersigned Registrant undertakes that: (1) for purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of the registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of the registration statement as of the time it was declared effective; and (2) for the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the Registration Certificate of Incorporation, Bylaws, indemnification agreements or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by Registrant of expenses incurred or paid by a director, officer or controlling person of Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

Table of Contents

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, Nanophase Technologies Corporation certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized in Romeoville, Illinois as of September 6, 2002.

NANOPHASE TECHNOLOGIES CORPORATION

/s/ JOSEPH E. CROSS

**Joseph E. Cross,
President and Chief Executive Officer**

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities indicated as of September 6, 2002.

| <u>Signature</u> | <u>Title</u> |
|---------------------|--|
| /s/ JOSEPH E. CROSS | President and Chief Executive Officer |
| Joseph E. Cross | |
| /s/ JESS JANKOWSKI | Acting Chief Financial Officer and Corporate Controller (Principal Accounting Officer) |
| Jess Jankowski | |
| * | Chairman of the Board |
| Donald Perkins | |
| * | Director |
| James A. Henderson | |
| * | Director |
| James McClung | |
| * | Director |
| Jerrald Pearlman | |
| * | Director |
| Richard Siegel | |

*By: /s/ JESS JANKOWSKI

Jess Jankowski
Attorney-in-fact

Table of Contents

EXHIBIT INDEX

| <u>Exhibit No.</u> | <u>Description</u> |
|---------------------------|--|
| 4.1 | Specimen stock certificate representing Common Stock, incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-1 (File No. 333-36937) (the "IPO S-1"). |
| 4.2 | Form of Warrants, incorporated by reference to Exhibit 4.2 to the IPO S-1. |
| 4.3 | Rights Agreement dated as of October 28, 1998 by and between the Company and LaSalle National Bank, incorporated by reference to Exhibit 1 to the Company's Registration Statement on Form 8-A, filed October 28, 1998. |
| 4.4 | Certificate of Designation of Series A Junior Participating Preferred Stock incorporated by reference to Exhibit 4.4 to the Company's Annual Report on Form 10-K for the year ended December 31, 1998 (the "1998 10-K"). |
| 4.5 | Amendment to Rights Agreement dated August 1, 2001 between the Company and LaSalle National Association, as Rights Agent, incorporated by reference to Exhibit 4.5 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2001. |
| 4.6 | 2001 Nanophase Technologies Corporation Equity Compensation Plan, incorporated by reference to Exhibit 4.3 to the Company's Registration Statement on Form S-8 (File No. 333-74170). |
| 4.7* | Second Amendment to Rights Agreement dated May 24, 2002 between the Company and LaSalle National Association, as Rights Agent. |
| 5.1* | Opinion of Wildman, Harrold, Allen & Dixon |
| 23.1 | Consent of McGladrey & Pullen, LLP |
| 23.2 | Consent of Ernst & Young LLP |
| 23.3 | Consent of Wildman, Harrold, Allen & Dixon (included in Exhibit 5.1) |
| 24 | Power of Attorney (included on signature page) |

* Filed previously.