NANOMETRICS INC
Form PRE 14A
August 08, 2006

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 14A

PROXY STATEMENT PURSUANT TO SECTION 14(A) OF THE SECURITIES EXCHANGE ACT OF 1934

Filed by the Registrant	x
Filed by a party other than the Registrant	¨

Check the appropriate box:

x Preliminary Proxy Statement

¨ Definitive Proxy Statement

¨ **Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**

¨ Definitive Additional Materials

¨ Soliciting Material Pursuant to Rule 14a-11(c) or Rule 14a-12

NANOMETRICS INCORPORATED

(Name of Registrant as Specified in its Charter)

(Name of Person(s) Filing Proxy Statement if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

x No fee required.

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(1) Title of each class of securities to which transactions applies:

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(1) Amount Previously Paid:

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(3) Filing Party:

(4) Date Filed:

NANOMETRICS INCORPORATED

NOTICE OF ANNUAL MEETING OF SHAREHOLDERS

TO THE SHAREHOLDERS OF NANOMETRICS INCORPORATED:

NOTICE IS HEREBY GIVEN that the annual meeting of shareholders of Nanometrics Incorporated, a California corporation (the Company), will be held on Friday, September 1, 2006 at 1:00 p.m., local time, at the Company s principal offices located at 1550 Buckeye Drive, Milpitas, California 95035. At the annual meeting, you will be asked to consider and vote upon the following:

1. A proposal to elect seven candidates nominated by the board of directors to serve until the next annual meeting of shareholders at which their respective successors are elected and qualified, or their earlier death, resignation or removal.

2. A proposal to approve the reincorporation of the Company under the laws of the State of Delaware through a merger with Big League Merger Corporation, a wholly-owned subsidiary of the Company.

3. Proposals to approve various governance-related provisions in the proposed charter documents of the Company to be effective upon the completion of the reincorporation merger consisting of the following proposals:

   3A a proposal to approve a provision limiting the Company s stockholders right to call special meetings of stockholders;

   3B a proposal to approve a provision limiting the Company s stockholders ability to act by written consent;

   3C a proposal to approve a provision requiring a super-majority vote of the Company s stockholders to amend certain provisions of its certificate of incorporation;

   3D a proposal to approve a provision requiring a super-majority vote of the Company s stockholders to amend certain provisions of the Company s bylaws;

   3E a proposal to approve a provision limiting the Company s stockholders right to remove directors from the board without cause;

   3F a proposal to approve the classification of the board of directors into separate classes with staggered terms; and

   3G a proposal to approve a provision eliminating the shareholders ability to cumulate votes in connection with the election of directors.

4. A proposal to ratify the appointment of BDO Seidman, LLP as the Company s independent registered public accounting firm for the fiscal year ending December 30, 2006.

5. Such other business as may properly come before the annual meeting or any postponements or adjournments thereof.

The foregoing items of business are more fully described in the proxy statement accompanying this notice of annual meeting of shareholders.

Only shareholders of record at the close of business on August 1, 2006 are entitled to notice of and to vote at the annual meeting and any postponements or adjournments thereof.

All shareholders are cordially invited to attend the annual meeting in person. However, to ensure representation at the annual meeting, you are urged to mark, sign, date and return the enclosed proxy card as promptly as possible in the postage-prepaid envelope enclosed for that purpose. Any shareholder of record attending the annual meeting may vote in person even if that shareholder previously returned a proxy card for the annual meeting.

BY ORDER OF THE BOARD OF DIRECTORS,

Vincent J. Coates

Chairman of the Board of Directors and Secretary

Milpitas, California

August 8, 2006

NANOMETRICS INCORPORATED

PROXY STATEMENT

INFORMATION CONCERNING SOLICITATION AND VOTING

General

This proxy statement is being provided to the shareholders of Nanometrics Incorporated (the Company) as part of a solicitation of proxies by the board of directors for use at the 2006 annual meeting of shareholders. This proxy statement provides shareholders with information they need to know to be able to vote or instruct their vote to be cast at the annual meeting.

Date, Time and Place

The annual meeting will be held on Friday, September 1, 2006 at 1:00 p.m., local time, at the Company s principal offices located at 1550 Buckeye Drive, Milpitas, California 95035.

Purpose; Other Matters

The annual meeting is being held to consider and vote upon the following:

1. A proposal to elect seven candidates nominated by the board of directors to serve until the next annual meeting of shareholders at which their respective successors are elected and qualified, or their earlier death, resignation or removal.

2. A proposal to approve the reincorporation of the Company under the laws of the State of Delaware through a merger with Big League Merger Corporation, a wholly-owned subsidiary of the Company.

3. Proposals to approve various governance-related provisions in the proposed charter documents of the Company to be effective upon the completion of the reincorporation merger consisting of the following proposals:

   3A a proposal to approve a provision limiting the Company s stockholders right to call special meetings of stockholders;

   3B a proposal to approve a provision limiting the Company s stockholders ability to act by written consent;

   3C a proposal to approve a provision requiring a super-majority vote of the Company s stockholders to amend certain provisions of its certificate of incorporation;

   3D a proposal to approve a provision requiring a super-majority vote of the Company s stockholders to amend certain provisions of the Company s bylaws;

   3E a proposal to approve a provision limiting the Company s stockholders right to remove directors from the board without cause;

   3F a proposal to approve the classification of the board of directors into separate classes with staggered terms; and

3G a proposal to approve a provision eliminating the shareholders ability to cumulate votes in connection with the election of directors.

4. A proposal to ratify the appointment of BDO Seidman, LLP as the Company s independent registered public accounting firm for the fiscal year ending December 30, 2006.

Shareholders will also be asked to consider and vote upon any other business as may properly come before the annual meeting or any adjournments or postponements of the annual meeting. The Company does not expect that any matter other than the proposals presented in this proxy statement will be brought before the annual meeting. However, if other matters incident to the conduct of the annual meeting are properly presented at the

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annual meeting or any adjournment or postponement of the annual meeting, the persons named as proxies will vote in accordance with their best judgment with respect to those matters.

If you vote AGAINST any of the proposals, the proxy holders will not be authorized to vote for any adjournments or postponements of the annual meeting, including for the purpose of soliciting additional proxies, unless you so indicate by marking the appropriate box on the proxy card for the annual meeting.

Recommendation of the Board of Directors

The board of directors unanimously recommends that you vote:

- FOR the proposal to elect seven candidates nominated by the board of directors to serve until the next annual meeting of shareholders at which their respective successors are elected and qualified, or until the earlier of their death, resignation or removal;

- FOR the proposal to approve the reincorporation of the Company under the laws of the State of Delaware through a merger with Big League Merger Corporation, a wholly-owned subsidiary of the Company;

- FOR the proposal to approve the governance related provisions in the Company s certificate of incorporation to be effective upon completion of the reincorporation merger; and

- FOR the proposal to ratify the appointment of BDO Seidman, LLP as the Company s independent registered public accounting firm for the fiscal year ending December 30, 2006.

Record Date; Outstanding Shares; Voting Rights

Only holders of record of common stock at the close of business on the record date for the annual meeting, August 1, 2006, are entitled to notice of and to vote at the annual meeting. As of the record date, there were 17,960,546 shares of common stock outstanding and entitled to vote at the annual meeting, held by approximately 415 holders of record. Each record holder of common stock on the record date is entitled to one vote for each share of common stock held as of the record date with respect to all proposals except with respect to the election of directors.

The candidates receiving the seven highest vote totals will be elected to the board of directors. Every shareholder voting for the election of the board of directors may (i) cumulate such shareholder s votes and give any one candidate a number of votes equal to the number of directors to be elected multiplied by the number of shares that such shareholders holds on the record date for the annual meeting, or (ii) distribute such shareholder s votes on the same principle among as many candidates as the shareholder may select, provided that votes cannot be cast for more than seven candidates. However, no shareholder will be entitled to cumulate votes for a candidate unless the candidate s name has been placed in nomination prior to the voting and the shareholder, or any other shareholder, has given notice at the annual meeting prior to the voting of the intention to cumulate votes.

A list of shareholders will be available for review at the annual meeting and at the Company s executive offices during regular business hours for a period of ten days before the annual meeting.

Admission to the Annual Meeting

Only shareholders, their designated proxies and guests of the Company may attend the annual meeting. If you plan to attend the annual meeting and wish to vote in person, you will be given a ballot at the annual meeting. Please note, however, that if your shares are held in street name, which means your shares are held of record by a broker, bank or other nominee, and you wish to vote at the annual meeting, you must bring to the annual meeting a legal proxy from the record holder of your shares authorizing you to attend and vote at the annual meeting.

Quorum and Vote Required

A quorum of shareholders is necessary to hold a valid annual meeting of shareholders. In order to have a quorum for the transaction of business at the annual meeting, a majority of shares of common stock issued and outstanding and entitled to vote on the record date must be present in person or by proxy at the annual meeting. Shares that are voted FOR, AGAINST, ABSTAIN or WITHHOLD AUTHORITY a matter are treate as being present at the annual meeting for purposes of establishing a quorum.

In addition, the vote required to approve each proposal is as follows:

Proposal 1

The candidates for the board of directors receiving the seven highest vote totals will be elected to serve as directors of the Company.

Proposal 2

Approval of the reincorporation merger will require the affirmative vote of the holders of a majority of the outstanding shares of common stock entitled to vote on the record date.

Proposals 3A-G

Under applicable state law, shareholder approval of the reincorporation merger is sufficient to implement the proposed governance-related provisions in the certificate of incorporation of the Company. Under rules promulgated by the Securities and Exchange Commission, however, we are required to present each of the proposed governance-related provisions as a separate proposal for shareholder approval. Accordingly, if we complete the reincorporation merger, we have determined that we will not implement the proposed governance-related provisions unless they are independently approved by the affirmative vote of the holders of a majority of the shares of the Company s common stock represented and voting on each proposed governance-related provision at the annual meeting.

Proposal 4

Approval by the shareholders of the selection of the independent registered public accounting firm is not required, but the audit committee believes it is desirable as a matter of good corporate governance to submit this matter to the shareholders. If holders of a majority of the common stock represented and voting at the annual meeting do not ratify the appointment of BDO Seidman, LLP as the Company s independent registered public accounting firm for the fiscal year ending December 30, 2006, the audit committee will consider whether it should select another independent registered public accounting firm.

Voting

General

Shareholders of record as of the record date may vote their shares by attending the annual meeting and voting their shares in person or by completing, signing and dating their respective proxy cards for the annual meeting and mailing them in the postage pre-paid envelope enclosed for that purpose. Shareholders holding shares of common stock in street name, which means that their shares are held of record by a broker, bank, or other nominee, may vote by mail by completing, signing and dating the voting instruction forms for the annual meeting provided by their respective brokers, banks, or other nominees and returning their respective voting instruction forms to the record holders of their shares of common stock. Even if you plan to attend the annual meeting, the Company recommends that you vote by proxy prior to the annual meeting. You can always change your vote as described below.

Voting by Proxy

All properly executed proxies that are received prior to the annual meeting and not revoked will be voted at the annual meeting according to the instructions indicated on the proxies. If your proxy does not specify how you wish the Company to vote your shares, your shares will be voted:

- FOR the proposal to elect seven candidates nominated by the board of directors to serve until the next annual meeting of shareholders at which their respective successors are elected and qualified, or until the earlier of their death, resignation or removal;
- FOR the proposal to approve the reincorporation of the Company under the laws of the State of Delaware through a merger with Big League Merger Corporation, a wholly-owned subsidiary of the Company;
- FOR the proposal to approve the governance-related provisions in the Company s certificate of incorporation and bylaws to be effective upon completion of the reincorporation merger; and
- FOR the proposal to ratify the appointment of BDO Seidman, LLP as the Company s independent registered public accounting firm for the fiscal year ending December 30, 2006.

You may receive more than one proxy card depending on how you hold your shares of common stock. Generally, you need to sign and return all of your proxy cards to vote all of your shares. For example, if you hold shares through someone else, such as a broker, you may get proxy material from that person.

Changing Your Vote

If you are the record holder of your shares of common stock, you can change your vote at any time before your proxy is voted at the annual meeting by:

- delivering to the Company s corporate secretary a signed notice of revocation;
- granting the proxy holders a new, later-dated proxy, which must be signed and delivered to the Company s corporate secretary in advance of the vote at the annual meeting; or
- attending the annual meeting and voting in person.

Your attendance alone, however, will not revoke your previously granted proxy. If you hold your shares in street name and you have provided voting instructions to your broker, bank or other nominee for the annual meeting, you must follow the instructions provided by your broker, bank or other nominee in order to change your vote or revoke your proxy for the annual meeting.

Abstentions and Broker Non-Votes

An abstention occurs when a shareholder attends a meeting, either in person or by proxy, but abstains from voting. While there is no definitive statutory or case law authority in California as to the proper treatment of abstentions, the Company believes that abstentions should be counted for purposes of determining both (i) the presence or absence of a quorum for the transaction of business and (ii) the total number of shares of common stock represented and voting with respect to a proposal. In the absence of controlling authority to the contrary, the Company intends to treat abstentions in this manner.

Broker non-votes are shares held by a broker or other nominee that are represented at the annual meeting, but with respect to which the broker or nominee is not instructed by the beneficial owner of the shares to vote on the particular proposal and the broker does not have discretionary voting power on the proposal. Broker non-votes will be counted for purposes of determining the presence or absence of a quorum but will not be counted for purposes of determining the number of shares represented and voting with respect to a proposal.

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For proposal 1, neither abstentions nor broker non-votes will have any effect on the election of the seven directors.

For proposal 2, abstentions and broker non-votes will have the same effect as voting against approval of the reincorporation merger.

For proposals 3A-3G, neither abstentions nor broker non-votes will have any effect on the approvals of the governance-related proposals.

For proposal 4, abstentions will have the same effect as voting against ratification of the appointment of BDO Seidman, LLP as the Company s independent registered public accounting firm for the fiscal year ending December 30, 2006; broker non-votes will have no effect.

Proxy Solicitation

The Company is soliciting proxies for the annual meeting from its shareholders. The Company will bear the entire cost of soliciting proxies from the shareholders. In addition to the solicitation of proxies by mail, the Company will request that brokers, banks and other nominees send proxies and proxy materials to the beneficial owners of common stock held by them and secure their voting instructions, if necessary. The Company will reimburse those record holders for their reasonable expenses. The Company also may use several of its regular employees, who will not be specially compensated, to solicit proxies from shareholders, either personally or by telephone, Internet, telegram, facsimile or special delivery letter.

Assistance

If you need assistance in completing your proxy card or have questions regarding the annual meeting, please contact Investor Relations at (408) 435-9600 or write to Nanometrics Incorporated, 1550 Buckeye Drive, Milpitas, California 95035, Attn: Investor Relations.

Shareholder Proposals

The attached proxy card grants the proxy holders discretionary authority to vote on any matter raised at the 2006 Annual Meeting. Shareholders are entitled to present proposals for action at the 2007 Annual Meeting. For any proposal to be considered for inclusion in the Company s proxy statement and form of proxy for submission to the shareholders at the 2007 annual meeting, the proposal must comply with the requirements of Rule 14a-8 under the Exchange Act and be submitted in writing by notice delivered or mailed by first-class United States mail, postage prepaid, to Nanometrics Incorporated, 1550 Buckeye Drive, Milpitas, California 95035, Attention: Office of the Secretary. Typically, proposals must be received by the Company no later than 120 calendar days before the date the proxy statement was released to shareholders in connection with the previous year s annual meeting. If the company changes the date of its annual meeting to a date more than 30 days from the date of the previous year s annual meeting, than the deadline for receipt of shareholder proposals will be changed to a reasonable time before the Company begins to print and mail its proxy. The submission of a shareholder proposal does not guarantee that it will be included in the Company s proxy statement. Additionally, shareholder proposals to be considered at the annual meeting outside the processes of Rule 14a-8 (which are not intended to be included in the proxy materials for such annual meeting) must be delivered to or mailed and received at the Company s executive offices at least 45 days before the date that the proxy statement was released to shareholders in connection with the previous year s annual meeting.

Material Proceedings

To the best of management s knowledge, there are no material proceedings to which any director or officer is a party and (i) is adverse to the Company or any of its subsidiaries or (ii) has a material interest adverse to the Company or any of its subsidiaries.

PROPOSAL 1

ELECTION OF NANOMETRICS   DIRECTORS

Nominees

At the 2006 annual meeting of shareholders, unless otherwise instructed, the proxy holders will vote the proxies received by them for the seven nominees named below, each of whom is presently a director of the Company. In the event that any nominee is unable or declines to serve as a director at the time of the annual meeting, the proxies will be voted for any nominee who shall be designated by the present board of directors to fill the vacancy. The proxy holders intend to vote all proxies received by them in such a manner and in accordance with cumulative voting as will ensure the election of as many of the nominees listed below as possible and, in such event, the specific nominees to be voted for will be determined by the proxy holders. The Company is not aware of any nominee who will be unable or will decline to serve as a director

The names of the seven nominees and certain information about them are set forth below:

Name of Nominee	Age	Director Since
Vincent J. Coates	81	1975
John D. Heaton	46	1995
Edmond R. Ward	67	1999
William G. Oldham	68	2000
Stephen J Smith	59	2004
J. Thomas Bentley	57	2004
Bruce C. Rhine	49	2006

Vincent J. Coates has been Chairman of the Board since Nanometrics was founded in 1975. He has been our Secretary since February 1989. He has also served as our Chief Executive Officer through April 1998 and President from our founding through May 1996, except for the period of January 1986 through February 1987 when he served exclusively as Chief Executive Officer. Mr. Coates has also served as Chairman of the Board of Nanometrics Japan Ltd., one of our subsidiaries, since June 1998. Prior to his employment at Nanometrics, Mr. Coates co-founded Coates and Welter Instrument Corporation, a designer of electron microscopes, which was subsequently acquired by Nanometrics. Mr. Coates also spent over twenty years working in engineering, sales and international operations for the Perkin-Elmer Corporation, a manufacturer of analytical instruments. In 1995, he received an award that recognized his contribution to the industry from Semiconductor and Equipment and Materials International, an industry trade organization.

John D. Heaton has served as a director of Nanometrics since July 1995. Since May 1996, he has served as our President. Since April 1998, he has also served as our Chief Executive Officer. From May 1996 to April 1998, he served as our Chief Operating Officer. Mr. Heaton has also served as President of Nanometrics Japan Ltd., one of our subsidiaries, since January 1998. Beginning in 1978, Mr. Heaton served in various technical positions at National Semiconductor Corporation, a semiconductor manufacturer, prior to joining us in 1990.

Edmond R. Ward has served as a director of Nanometrics since July 1999. Beginning in January 2002, Mr. Ward has served as Chief Technical Officer of Unity Semiconductor Corporation, a semiconductor design and manufacturing company. Since April 1999, Mr. Ward has been a General Partner of Virtual Founders, a venture capital firm. From April 1992 to June 1997, Mr. Ward was the Vice President of Technology at Silicon Valley Group, Inc., a supplier of wafer processing equipment.

William G. Oldham has served as a director of Nanometrics since June 2000. Since 1964, Mr. Oldham has been a faculty member at the University of California, Berkeley, where he researches EUV and Maskless Lithography and, since 1996, has been the Director of the DARPA/SRC Research Network for Advanced Lithography. He has served as a consultant in various intellectual property matters and serves on the board of directors of Cymer, Inc., a supplier of light sources for deep ultraviolet photolithography systems used in the manufacturing of semiconductors.

Stephen J Smith has served as a director of Nanometrics since April 2004. Dr. Smith has been a professor in the Department of Molecular and Cellular Physiology at the Stanford University School of Medicine since 1989, where he researches brain development and function with special interests in the dynamic and structural aspects of synapse and circuit formation and synaptic plasticity. Dr. Smith is the author of numerous research articles in the fields of cellular and molecular neuroscience.

J. Thomas Bentley has served as a director of Nanometrics since April 2004. Mr. Bentley is a co-founder of Alliant Partners, a leading merger and acquisition firm for emerging and mid-market technology companies. For the past 10 years, Mr. Bentley has worked with some of Alliant s largest clients on their strategic acquisitions and divestitures. His expertise is in financial, tax and accounting structuring of merger transactions.

Bruce C. Rhine was appointed as a member of the Board and Chief Strategy Officer of Nanometrics in connection with the Accent Optical merger on July 21, 2006. He previously served as Chairman and Chief Executive Officer of Accent Optical Technologies, Inc. since August 2000. He served as Accent Optical s President from January 2003 to April 2005 and from August 2000 to September 2001. From February 2000 to July 2000, he was Chairman and Chief Executive Officer of Timbre Technologies, Inc., a software supplier to semiconductor manufacturers. From October 1999 to February 2000, he was a Vice President of Applied Materials, Inc., a semiconductor equipment manufacturer.

The candidates for the board of directors receiving the seven highest vote totals will be elected to serve as directors of the Company. The directors elected at the annual meeting will serve until the next annual meeting or until such director s successor has been elected or qualified.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT THE SHAREHOLDERS VOTE FOR THE SEVEN NOMINEES SET FORTH HEREIN.

Security Ownership of Management and Certain Beneficial Owners

The following table sets forth beneficial ownership of common stock of the Company as of August 1, 2006, the record date, by each director or nominee, by each of the Named Officers (as defined in the section of this proxy statement entitled *Compensation of Executive Officers* beginning on page 11), by all directors and Named Officers as a group, and by all persons known to the Company to be the beneficial owners of more than 5% of the Company s common stock. Unless otherwise indicated, all persons named below can be reached at Nanometrics Incorporated, 1550 Buckeye Drive, Milpitas, California 95035. As of the close of business on August 1, 2006, there were 17,960,546 shares of common stock outstanding.

	Amount and Nature of Beneficial Ownership(1) Shares			
Name of Beneficial Owner	Shares	Stock Options Exercisable within 60 days of August 1, 2006	Total Shares Beneficially Owned	Percent of Class
Dimensional Fund Advisors Inc.(2) 1299 Ocean Avenue, 11th Floor Santa Monica, CA 90401	1,100,500		1,100,500	6.1%
Peter M. Joost(3) 555 California Street, Suite 5180 San Francisco, CA 94104	1,358,664		1,358,664	7.5%
The TWC Group(4) 865 South Figueroa Street Los Angeles, CA 90017	1,445,780		1,445,780	8.0%
J. Thomas Bentley		9,999	9,999	*
Vincent J. Coates(5)	3,376,154		3,376,154	18.8%
John D. Heaton		589,166	589,166	3.1%
Roger Ingalls, Jr.	9,000	33,166	42,166	*
Douglas J. McCutcheon	985	50,000	50,985	*
William G. Oldman		29,999	29,999	*
Bruce C. Rhine(6)	1,356,719	7,243	1,363,962	7.6%
Stephen J Smith		9,999	9,999	*
Edmond R. Ward	2,000	29,999	31,999	*
Quentin B. Wright		16,666	16,666	*
Paul B. Nolan	5,000		5,000	*
Michael Weber				*
All Named Officers and directors as a group (twelve (12) persons)	4,749,858	776,237	5,526,095	29.4%

* Less than 1%.

(1) As determined in accordance with Rule 13-D under the Securities and Exchange Act of 1934.

(2) According to a 13G/A filed with the SEC on February 6, 2006, Dimension Fund Advisors, Inc. may be deemed to be the beneficial owner of 1,100,500 shares of common stock.

(3) According to a Schedule 13G filed with the SEC on July 28, 2006, Peter M. Joost may be deemed to be the beneficial owner of 1,358,664 shares of common stock.

(4) According to a Schedule 13G/A filed with the SEC on March 10, 2006, The TCW Group, Inc. may be deemed to be the beneficial owner of 1,445,780 shares of common stock.

(5) Includes 3,376,154 shares of common stock held of record by the Vincent J. Coates Separate Property Trust, U/D/T dated August 7, 1981, for which Mr. Coates acts as trustee.

(6) Includes 406,200 shares of common stock held of record by the Rhine 2000 Children s Trust, 934,683 shares of common stock held of record by Bruce Charles Rhine and Martha Hawn Rhine Family Trust u/t/a dated February 6, 2002, and 12,910 shares of common stock held jointly with Mr. Rhine s wife. Mr. Rhine

disclaims beneficial ownership with respect to the shares held by the Rhine 2000 Children s Trust and 7,243 shares of common stock issuable upon the exercise of options exercisable within 60 days.

Board Meetings and Committees

The board of directors met (or acted by written consent) a total of 17 times during the fiscal year ended December 31, 2005. During the fiscal year ended December 31, 2005, all incumbent directors attended at least 75% of meetings of the board of directors and meetings of committees, if any, upon which such directors served. The standing committees of the board of directors include an audit committee, a compensation/stock option committee and a nominating/governance committee.

The board of directors has determined that all of its directors meet the independence requirements of the NASDAQ Global Market, with the exception of Vincent J. Coates, John D. Heaton and Bruce C. Rhine. Norman V. Coates, who resigned as a director effective March 27, 2006, was not an independent director for purposes of the requirements of the NASDAQ Global Market.

It is the policy of the Company to require its directors to attend its annual meetings absent a valid reason, such as a schedule conflict. All of the directors who served on the board of directors for the entire fiscal year attended the 2005 annual meeting of shareholders.

Audit Committee

The audit committee of the board of directors reviews and monitors the Company s financial reporting as well as its internal and external audits, including among other things, the Company s internal audit and control functions, the results and scope of the annual audit and other services provided by the Company s independent auditors, and the Company s compliance with legal matters that may have a significant impact on the Company s financial reports. In addition, the audit committee has the responsibility to consider and recommend the employment of, and to review fee arrangements with, the Company s independent auditors. The audit committee also monitors transactions between the Company and its officers, directors and employees for any potential conflicts of interest. The audit committee met (or acted by written consent) 5 times during the fiscal year ended December 31, 2005.

The members of the audit committee during the fiscal year ended December 31, 2005 were William G. Oldham, Edmond R. Ward and J. Thomas Bentley. Mr. Bentley has been appointed by the board of directors to serve as the audit committee financial expert and chairman.

Each member of the Company s audit committee is an independent director as that term is defined under the applicable NASDAQ Global Market listing standards. The audit committee has adopted a written charter, which is available on the Company s website at www.nanometrics.com.

Compensation/Stock Option Committee

The compensation/stock option committee reviews and makes recommendations to the board of directors regarding the Company s compensation policy and all forms of compensation to be provided to certain of the executive officers of the Company, including the chief executive officer.

The compensation/stock option committee is responsible for approving the grant of stock options to the Company s employees under the Company s 2000 Employee Stock Option Plan, 2002 Nonstatutory Stock Option Plan and 2005 Equity Incentive Plan.

The members of the compensation/stock option committee serving in the fiscal year ended December 31, 2005 were Edmond R. Ward, J. Thomas Bentley and Stephen J Smith. Mr. Ward was appointed as chairman of the compensation/stock option committee by the board of directors. The compensation/stock option committee met (or acted by written consent) 4 times during fiscal 2005. The compensation/stock option committee has adopted a written charter, which is available on the Company s website at www.nanometrics.com.

Nominating/Corporate Governance Committee

The Company maintains a standing nominating/corporate governance committee that assists the board of directors in identifying and qualifying candidates to join the board of directors and addressing governance issues. All members of the nominating committee are independent. The nominating committee utilizes a variety of methods for identifying and evaluating nominees. Its general policy is to assess the appropriate size of the board of directors and whether any vacancies are expected due to retirement or otherwise. In the event those vacancies are anticipated, or otherwise arise, the nominating committee will consider recommending various potential candidates to fill such vacancies. Candidates may come to the attention of the nominating committee through its current members, shareholders or other persons. The board of directors may consider properly submitted shareholder nominations for candidacy. Nominees may be submitted by shareholders in accordance with the shareholder communication policy described below.

The nominating/corporate governance committee has no specific, minimum qualifications for director candidates. In general, however, persons considered for board of directors positions must have demonstrated leadership capabilities, be of sound mind and high moral character, have no personal or financial interest that would conflict or appear to conflict with the interests of the Company and be willing and able to commit the necessary time for board of directors and committee service.

The nominating/corporate governance committee believes that board members should represent a balance of diverse backgrounds and skills, including marketing, finance, manufacturing, engineering, science, and international experience. The nominating/corporate governance committee consists of William G. Oldham and Stephen J Smith. Mr. Oldham was appointed as chairman of the nominating/corporate governance committee by the board of directors. The nominating/corporate governance committee met 4 times in the fiscal year ended December 31, 2005 and has adopted a written charter, which is available on the Company s website at www.nanometrics.com.

Shareholder Communication Policy

The board of directors has established a formal process for shareholders to send communications to the board of directors or to individual directors. The names of all directors are available to shareholders in this proxy statement. If the Company receives any shareholder communication intended for the full board of directors or any individual director, the Company will forward the communication to the full board of directors or the individual director, unless the communication is clearly of a marketing nature or is unduly hostile, threatening, illegal or similarly inappropriate, in which case the Company has the authority to discard the communications or take appropriate legal action regarding the communication.

Compensation/Stock Option Committee Interlocks and Insider Participation

No member of the compensation/stock option committee of the Company s board of directors serves as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving as a member of the Company s board of directors or compensation/stock option committee.

Compensation of Directors

In 2005, directors who were not also employees of the Company, or outside directors, received an annual retainer fee of $5,000, plus $1,000 for each board and committee meeting attended. Outside directors were also eligible to participate in the Company s Directors Stock Option Plan which provided for an initial option grant for the purchase of 10,000 shares of common stock upon election to the board. Thereafter, each outside director was automatically granted an option to purchase 10,000 shares of common stock for each year of service on the board. Each audit committee member received an additional $3,000 annual retainer and $500 for attending quarterly earnings release conference calls. Additionally, the audit committee chairman received an incremental $2,000 retainer for serving in such capacity.

In 2006, the Company increased the compensation paid to outside directors such that outside directors receive an annual retainer fee of $15,000, plus $1,500 for each board and special committee meeting attended, however, outside directors receive $500 for special board or committee telephone meetings lasting less than one-half hour. The Company s Directors Stock Option Plan currently provides for an initial option grant for the purchase of 20,000 shares of common stock upon election to the board. Thereafter, each outside director is automatically granted an option to purchase 10,000 shares of common stock for each year of service on the board. Each committee member receives an additional $2,000 annual retainer. Additionally, the audit committee chairman receives an incremental $6,000 retainer for serving in such capacity and all other committee chairmen receive an incremental $1,000 retainer for serving in such capacity.

Compensation of Executive Officers

The following table sets forth the compensation paid by the Company during the past three fiscal years to (i) the chief executive officer, (ii) each of the four most highly compensated executive officers (or such lesser number of executive officers as the Company may have) of the Company not serving as chief executive officer and (iii) up to an additional two individuals that would have been included under item (ii) but for the fact that the individuals were not serving as executive officers as of December 31, 2005, all of whom are collectively referred to as the Named Officers . Paul B. Nolan resigned as Vice President and Chief Financial Officer of the Company on September 14, 2005.

Summary Compensation Table

		Annual Compensation			Long Term Compensation Awards	
Name	**Fiscal Year**	**Salary**	**Bonus(1)**	**Other Annual Compensation**	**Securities Underlying Options (#)**	**All Other Compensation(2)**
John D. Heaton	2005	$ 364,400	$ 51,360	$		$ 26,000
President and Chief	2004	341,800	79,314		100,000	
Executive Officer	2003	342,800			572,500	
Vincent J. Coates	2005	204,800				
Chairman of the Board and	2004	204,800				
Secretary	2003	204,800				
Roger Ingalls, Jr.	2005	201,876	123,355			
Senior Vice President of Standalone Sales	2004	195,265	29,658		5,000	
	2003	198,965	46,777		31,500	
Paul B. Nolan	2005	167,819	17,648			159,046
Former Vice President and	2004	183,055	29,864			
Chief Financial Officer	2003	179,050				
Douglas J. McCutcheon	2005	80,019	25,000		150,000	
Executive Vice President, Finance and	2004					
Administration and Chief Financial Officer	2003					
Quentin B. Wright	2005	142,191	9,477		50,000	41,400
Chief Accounting Officer	2004					
	2003					
Michael Weber	2005	102,580	4,297		50,000	
Former Vice President of Engineering	2004					
	2003					

(1) Representing bonuses and/or commissions paid to the Named Officers.

(2) Representing (i) payments to Mr. Heaton of $21,200 and $4,800, respectively, for accrued vacation time and an auto allowance; (ii) consulting fees and a severance payment of $52,162 and $106,884, respectively, paid to Mr. Nolan after he stepped down as an employee and (iii) consulting fees of $41,400 paid to Mr. Wright prior to his employment.

Stock Options Granted in the Fiscal Year Ended December 31, 2005

The following table sets forth information with respect to stock options granted during the fiscal year ended December 31, 2005 to each of the Named Officers. Options were granted under the Company s 2000 Stock Option Plan, 2002 Stock Option Plan and 2005 Equity Incentive Plan. The potential realizable value amounts in the last two columns of the following chart represent hypothetical gains that could be achieved for the respective options if exercised at the end of the option term. The assumed 5% and 10% annual rates of stock price appreciation from the date of grant to the end of the option term are provided in accordance with rules of the Securities and Exchange Commission and do not represent the Company s estimate or projection of the future common stock price. Actual gains, if any, on stock option exercises are dependent on the future performance of the common stock, overall market conditions and the option holder s continued employment through the vesting period.

Option Grants in Last Fiscal Year

	Individual Grants				Potential Realized Value at Assumed Annual Rates of Stock Price Appreciation for Option Term	
Name	**Number of Securities Underlying Options Granted (#) (1)**	**% of Total Options Granted to Employees in Fiscal Year (2)**	**Exercise Price ($/Sh)**	**Expiration Date**	**5% ($)**	**10% ($)**
John D. Heaton			$			
Vincent J. Coates						
Roger Ingalls, Jr.						
Paul B. Nolan						
Douglas J. McCutcheon	150,000	18.89	12.03	9/14/12	734,613	1,711,690
Quentin B. Wright	50,000	6.30	11.52	4/15/12	234,490	546,461
Michael Weber	50,000	6.30	12.54	4/6/12	255,252	594,846

(1) All options granted to the Named Officers in fiscal 2005 were granted at exercise prices equal to the fair market value of the Company s common stock on the dates of grant. Historically, options granted become exercisable at the rate of 33% on the first anniversary date of the option grant and 33% of the total number of option shares each full year thereafter, such that full vesting occurs three years after the date of grant. Options (whether vested or unvested) expire after 7 years or 90 days after termination of employment.

(2) Based on 743,900 options granted during the year ended December 31, 2005.

Aggregated Option Exercises in Last Fiscal Year and Fiscal Year-End Option Values

The following table sets forth the number of shares covered by both exercisable and unexercisable stock options held by each of the Named Officers at December 31, 2005. Bruce C. Rhine and Bruce A. Crawford are not listed on the table below because they did not join the Company in their capacity as executive officers until after December 31, 2005. As indicated below, one (1) Named Officer, Paul B. Nolan, exercised stock options during the fiscal year ended December 31, 2005.

			Number of Securities Underlying Unexercised Options at Fiscal Year-End		Value of Unexercised In-the-Money Options at Fiscal Year-End ($) (2)	
Name	Shares Acquired on Exercise (#)	Value Realized ($) (1)	Exercisable	Unexercisable	Exercisable	Unexercisable
John D. Heaton		$	572,499	100,001	$ 2,768,914	$ 132,336
Vincent J. Coates						
Roger Ingalls, Jr.			33,166	3,334	168,000	2,100
Paul B. Nolan	13,334	75,604				
Douglas J. McCutcheon						
Quentin B. Wright						
Michael Weber						

(1) The value realized upon exercise is (i) the fair market value of the Company s common stock on the date of exercise, less the option exercise price per share, multiplied by (ii) the number of shares underlying the options exercised.

(2) The value of unexercised options is (i) the fair market value of the Company s common stock as of the end of 2005, as quoted on the NASDAQ Global Market, $11.00 per share, less the option exercise price of in-the-money options, multiplied by (ii) the number of shares underlying such options.

Employment Contracts and Termination of Employment and Change-in-Control Arrangements

Pursuant to the terms of an agreement between the Company and Vincent J. Coates, the Chairman of the Board of the Company, dated May 1, 1985, as amended and restated in August 1996 and April 1998, the Company is obligated to continue to pay Mr. Coates his salary and benefits for five years from the date of his resignation in the event Mr. Coates is required to resign as Chairman of the Board under certain circumstances, including a change of control.

In April 1998, the Company entered into an agreement with John D. Heaton pursuant to which the Company agreed to pay Mr. Heaton his annual salary (excluding bonuses) for a period of one year from the date that he is required or requested for any reason not involving good cause, including a change of control, to involuntarily relinquish his positions with the Company as President, Chief Executive Officer and director. If Mr. Heaton leaves the Company voluntarily, or if he is asked to leave under certain circumstances, no such severance payment is required.

In March 1995, the Company entered into an agreement with Roger Ingalls, Jr. pursuant to which the Company agreed to pay Mr. Ingalls his annual salary (excluding bonuses) for a period of one hundred twenty (120) days from the date he is terminated without cause.

On September 14, 2005, the Company entered into an agreement with Douglas J. McCutcheon in connection with his service to the Company as its new Executive Vice President, Finance and Administration and Chief Financial Officer. The Company agreed to pay Mr. McCutcheon twelve months of continued salary at his then-effective annual rate if the Company terminates him for any reason other than for good cause, provided that Mr. McCutcheon executes a general release. Termination for good cause, as used in the foregoing sentence, shall only occur if Mr. McCutcheon commits misconduct, unjustifiably neglects his duties, or acts in a way that has a direct, substantial and adverse effect on the Company or its reputation.

Equity Compensation Plan Information

All of the Company s equity compensation plans except the 2002 Non Statutory Stock Option Plan were approved by the Company s shareholders. The following table gives information about the common stock that may be issued under all of our existing equity compensation plans as of December 31, 2005.

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders	1,773,702	$ 10.78	1,864,927
Equity compensation plans not approved by security holders(1)	797,056	$ 8.32	114,834
Total	2,570,758	$ 10.01	1,979,761

(1) The material features of each plan adopted without the approval of security holders is set forth in Footnote 9 to the consolidated financial statements included in the Company s Form 10-K for the fiscal year ended December 31, 2005, and is incorporated by reference herein.

Certain Relationships

Vincent J. Coates is the father of Norman V. Coates. Norman V. Coates resigned as a director of the Company effective March 27, 2006. There are no other family relationships between any of the foregoing nominees or between any such nominees and any of the executive officers of the Company.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires the Company s executive officers and directors, and persons who own more than ten percent 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 and the NASDAQ Global Market. Executive officers, directors and greater than ten percent shareholders are required by Securities and Exchange Commission regulations to furnish the Company with copies of all Section 16(a) forms that they file. Based solely on its review of the copies of such forms received by it or written representations from certain reporting persons, the Company believes that, with the exception of Quentin Wright, during the fiscal year ended December 31, 2005, its executive officers, directors and greater than ten percent shareholders complied with all applicable filing requirements. Mr. Wright failed to timely report his initial statement on Form 3 and an option grant on Form 4.

Report of the Audit Committee of the Board of Directors

The following is the report of the audit committee of the board of directors describing its review of materials and determinations with respect to its auditors and financial statements for the fiscal year ended December 31, 2005. The information contained in this report shall not be deemed to be soliciting material or to be filed with the Securities and Exchange Commission, nor shall such information be incorporated by reference into any future filing under the Securities Act or Exchange Act, except to the extent that the Company specifically incorporates it by reference into such filing.

In accordance with its written charter adopted by the board of directors, the audit committee assists the board of directors in fulfilling its responsibility for oversight of the quality and integrity of the accounting, auditing and financial reporting practices of the Company. During the fiscal year ended December 31, 2005, the audit committee met (or acted by written consent) 5 times, and the audit committee chairman, as representative of the committee, discussed the interim financial information contained in quarterly earnings announcements with the chief financial officer and independent auditors prior to public release.

The audit committee received from the Company s independent auditors a formal written statement, consistent with Independence Standards Board Standard No. 1, Independence Discussions with Audit Committees, which describes all relationships between the auditors and the Company that, in the auditors professional opinion, might reasonably be thought to bear on the auditors independence. The audit committee discussed with the auditors these relationships and satisfied itself as to the auditors independence.

The audit committee also discussed and reviewed with the independent auditors all communications required by generally accepted auditing standards, including those described in Statement on Auditing Standards No. 61, as amended, Communication with Audit Committees and, with and without management present, discussed and reviewed the results of the independent auditors examination of the Company s financial statements.

Additionally, the audit committee reviewed and discussed the audited financial statements of the Company as of and for the fiscal year ended December 31, 2005 with management and the independent auditors. Management has the responsibility for the preparation of the Company s financial statements and the independent auditors have the responsibility for the examination of those statements.

Based on the foregoing review and discussions with management and the independent auditors, the audit committee recommended to the board of directors that the Company s audited financial statements as of and for the year ended December 31, 2005 be included in its Annual Report on Form 10-K for the fiscal year ended December 31, 2005 for filing with the Securities and Exchange Commission. The audit committee also recommended the appointment, subject to shareholder approval, of the independent auditors and the board of directors concurred in such recommendation.

Members of the Audit Committee

J. Thomas Bentley, Chairman

Edmond R. Ward

William G. Oldham

Report of the Compensation/Stock Option Committee of the Board of Directors

The following is the report of the compensation/stock option committee of the board of directors describing compensation policies and rationales applicable to certain of its executive officers with respect to the compensation paid to such executive officers for the fiscal year ended December 31, 2005. The information contained in such report shall not be deemed to be soliciting material or to be filed with the Securities and Exchange Commission, nor shall such information be incorporated by reference into any future filing under the Securities Act or Exchange Act, except to the extent that the Company specifically incorporates it by reference into such filing.

General. The compensation/stock option committee is responsible for making recommendations to the board of directors with respect to cash compensation levels for certain of the Company s executive officers. During fiscal year ended December 31, 2005, the compensation/stock option committee also was responsible for determining levels of equity-based compensation for the Company s employees.

Compensation Philosophy. The compensation/stock option committee makes recommendations as to the salaries of certain of the executive officers by considering (i) the salaries of executive officers in similar positions at comparably-sized peer companies, (ii) the Company s financial performance over the past year based upon revenues and operating results and (iii) the achievement of individual performance goals related to each executive officer s duties and areas of responsibility. The compensation/stock option committee makes recommendations as to the levels of cash bonuses awarded to certain of the Company s executive officers and views such bonuses as being an integral part of its performance based compensation program. Such bonuses are based on the Company s profits and are determined as a percentage of the officer s salaries.

Equity-Based Compensation. The compensation/stock option committee views stock options as an important part of its long-term, performance-based compensation program. The compensation/stock option committee grants stock options to all employees of the Company under its 2000 Stock Option Plan, 2002 Nonstatutory Stock Option Plan and 2005 Equity Incentive Plan based upon the committee s estimation of each employee s contribution to the long-term growth and profitability of the Company. The 2000 Stock Option Plan is intended to provide additional incentives to the executive officers to maximize shareholder value. Options are granted under the 2000 Stock Option Plan, the 2002 Nonstatutory Stock Option Plan and the 2005 Equity Incentive Plan at the then-current market price and are generally subject to three-year vesting periods to encourage key employees to remain with the Company.

Compensation of the Chief Executive Officer. The compensation/stock option committee has reviewed all components of the chief executive officer s compensation, including salary, bonus, equity, stock options, and the obligations under the Company s change of control severance agreement with Mr. Heaton.

Based on this review, the compensation/stock option committee found Mr. Heaton s total compensation (and, in the case of the change of control severance agreement, potential payout) in the aggregate to be reasonable and not excessive. It should be noted that when the compensation/stock option committee considers any component of the chief executive officer s total compensation, the aggregate amounts and mix of all the components, including accumulated (realized and unrealized) option gains are taken into consideration in the compensation/stock option committee s decisions.

Section 162(m). The Company intends that awards granted under the Company s 2000 Stock Option Plan, 2002 Nonstatutory Stock Option Plan and 2005 Equity Incentive Plan be deductible by the Company under Section 162(m) of the Internal Revenue Code of 1986, as amended.

Members of the Compensation/Stock Option Committee

Edmond Ward, Chairman

J. Thomas Bentley

Stephen J Smith

Stock Performance Graph

The following graph compares the cumulative total return to shareholders of the Company s common stock from December 31, 2000 through December 31, 2005 to the cumulative total return over such period of (i) the Nasdaq Stock Market (U.S.) Index and (ii) the RDG Technology Composite Index. The results shown assume that $100 was invested on December 31, 2000 in the Company s common stock and in each of the other two indices with any d