NANOMETRICS INC Form 10-K/A April 30, 2007

# **UNITED STATES**

# SECURITIES AND EXCHANGE COMMISSION

W	Vashington, D.C. 20549
F	FORM 10-K/A
	(Amendment No. 1)
(Mark One)	
OF 1934	ECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT
For the fiscal year ended December 30, 2006	OR
" TRANSITION REPORT PURSUANT TACT OF 1934  For the transition period from to	TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE
Com	nmission file number: 0-13470
NANOMETE	RICS INCORPORATED
(Exact name	e of registrant as specified in its charter)
Delaware (State or other jurisdiction of	94-2276314 (I.R.S. Employer

incorporation or organization)

**Identification Number)** 

1550 Buckeye Drive

Milpitas, California 95035 (Address of principal executive offices) (Zip Code) Registrant s telephone number, including area code: (408) 435-9600

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

Common Stock, \$0.001 par value per share

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

None

Indicate by check mark if the Registrant is a well-known seasoned issuer as defined in Rule 405 of the Securities Act. Yes "No x

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes "No x

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No "

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of Registrant s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer " Accelerated filer x Non-accelerated filer "

Indicate by check mark whether the Registrant is a shell company (as defined by Rule 12b-2 of the Securities Exchange Act of 1934) Yes "No x

As of July 1, 2006, the last business day of the Registrant s most recently completed second fiscal quarter, the aggregate market value of the common stock of Registrant held by non-affiliates, based upon the closing sales price for the Registrant s common stock, as quoted on the NASDAQ Global Market, was \$56,767,546. Shares of common stock held by each officer and director and by each person who owned 5% or more of the outstanding common stock have been excluded because such persons may be deemed to be affiliates as that term is defined under the rules and regulations of the Exchange Act. This determination of affiliate status is not necessarily a conclusive determination for any other purpose.

The number of shares of the Registrant s common stock outstanding as of April 24, 2007 was 18,153,099.

### **Explanatory Note**

This Amendment No. 1 on Form 10-K/A amends the Annual Report on Form 10-K for the fiscal year ended December 30, 2006 that we previously filed with the Securities and Exchange Commission on March 15, 2007. In accordance with General Instruction G to the Form 10-K, the information required by Items 10, 11, 12, 13 and 14 of Part III was omitted from our Form 10-K as filed and was to be incorporated by reference to our definitive proxy statement for our 2007 Annual Meeting of Stockholders. Since we will not in fact file our proxy statement within 120 days from the end of our fiscal year, we are filing this Amendment No. 1 solely for the purpose of providing the information required by Items 10, 11, 12, 13 and 14 of Part III of Form 10-K. Unless otherwise expressly stated, this Amendment No. 1 does not reflect events occurring after the filing of the original Form 10-K, or modify or update in any way disclosures contained in the original Form 10-K.

### PART III

# ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT Directors and Executive Officers

The following table sets forth certain information with respect to the directors and executive officers of Nanometrics as of April 25, 2007:

Name Vincent J. Coates	Age 82	Position Chairman of the Board and Secretary
J. Thomas Bentley	57	Director
William G. Oldham, Ph.D.	68	Director
Stephen J Smith, Ph.D.	60	Director
Edmond R. Ward, Ph.D.	67	Director
Bruce C. Rhine	49	Interim President and Chief Executive Officer, Chief Strategy Officer and Director
Bruce A. Crawford	54	Chief Operating Officer
Quentin B. Wright Vincent J. Coates founded our company and has served as our Chairma	50 in of th	Interim Chief Financial Officer, Chief Accounting Officer e Board since January 1975 and Secretary since February 1989.

Vincent J. Coates founded our company and has served as our Chairman of the Board since January 1975 and Secretary since February 1989. From January 1975 until April 1998, Mr. Coates served as our Chief Executive Officer and as President from January 1975 through May 1996, except for the period of January 1986 through February 1987 when he served exclusively as Chief Executive Officer. Mr. Coates holds a B.E. in Mechanical Engineering from Yale University.

J. Thomas Bentley has served as a director since April 2004. Mr. Bentley served as a Managing Director at SVB Alliant (formerly Alliant Partners), a mergers and acquisitions firm, since he co-founded the firm in 1990 until October 2005. Mr. Bentley currently serves on the board of directors of Rambus, Inc., a technology licensing company. Mr. Bentley holds a B.A. degree in Economics from Vanderbilt University and a Masters of Science in Management from the Massachusetts Institute of Technology.

William G. Oldham, Ph.D. has served as a director since June 2000. Since 1964, Dr. Oldham has been a faculty member at the University of California at Berkeley and, from 1996 until 2005, served as the Director of the DARPA/SRC Research Network for Advanced Lithography. He serves on the board of directors of Cymer, Inc., a supplier of light sources for deep ultraviolet photolithography systems. Dr. Oldham holds B.S., M.S. and Ph.D. degrees from the Carnegie Institute of Technology.

Stephen J Smith, Ph.D. has served as a director 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. Dr. Smith holds a B.A. degree from Reed College and a Ph.D. from the University of Washington.

Edmond R. Ward, Ph.D. has served as a director since July 1999. Since 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. Dr. Ward holds BSEE and Ph.D. degrees from Purdue University and a MSEE from Stanford University.

Bruce C. Rhine has served as our Chief Strategy Officer and as a director since July 2006 and as interim President and Chief Executive Officer since March 2007. From August 2000 to July 2006, Mr. Rhine served as Chairman and Chief Executive Officer of Accent Optical Technologies, Inc. Mr. Rhine holds a B.S. degree in Chemical Engineering and an M.B.A. in Finance from Pennsylvania State University.

Bruce A. Crawford has served as our Chief Operating Officer since July 2006. From July 2005 to July 2006, Mr. Crawford served as President and Chief Operating Officer of Accent Optical Technologies, Inc., a supplier of process control and metrology systems to the global semiconductor manufacturing industry, which was acquired by us in July 2006. From February 2003 to July 2005, Mr. Crawford served as Accent Optical s Chief Operating Officer and Executive Vice President and from October 2000 to February 2003, he served as Vice President of Worldwide Operations. Mr. Crawford holds an A.S. degree from De Anza College.

Quentin B. Wright has served as our Interim Chief Financial Officer since April 2007 and as Chief Accounting Officer since April 2005. From November 2003 until April 2005, Mr. Wright provided financial consulting services for various technology clients in Silicon Valley. From May 1999 until November 2003, Mr. Wright served as Director of Accounting of Adaptec, Inc., a manufacturer of storage access solutions. Mr. Wright holds a B.S. degree in Business Administration from Oregon State University.

### **Audit Committee and Audit Committee Financial Expert**

Nanometrics has established a standing Audit Committee which is composed of J. Thomas Bentley, William G. Oldham and Edmond R. Ward. Each of the members of the Audit Committee is independent as that term is defined under the applicable SEC Rules and NASDAQ Global Stock Market listing standards. Our board has determined that each member of the Audit Committee is able to read and understand financial statements. Further, the Board has determined that Mr. Bentley, Chairman of the Audit Committee, qualifies as an audit committee financial expert as that term is used in Item 7(d)(3)(iv) of Schedule 14A under the Exchange Act.

### Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our executive officers and directors, and persons who own more than 10% of a registered class of our 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 stockholders are required by Securities and Exchange Commission regulations to furnish Nanometrics 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, we believe that during the fiscal year ended December 30, 2006, our executive officers, directors and greater than 10% stockholders complied with all applicable filing requirements.

### **Code of Ethics**

We have adopted a code of business conduct and ethics that applies to all officers and employees. We post our code of business conduct and ethics on our website at www.nanometrics.com. We intend to disclose any amendment to the provisions of the code of business conduct and ethics that apply specifically to officers by filing such information on a Current Report on Form 8-K with the SEC, to the extent such filing is required by SEC Rules or the NASDAQ Global Market s listing requirements; otherwise, we will disclose such waiver by posting such information on our website.

### ITEM 11. EXECUTIVE COMPENSATION

### COMPENSATION DISCUSSION AND ANALYSIS

### Overview

The Compensation/Stock Option Committee (the Compensation Committee ) acts on behalf of the Board of Directors and, by extension, the stockholders of the Company to establish, implement and continually monitor adherence with the Company s compensation philosophy. The Compensation Committee ensures that the total compensation paid to the Company s executive officers is competitive and consistent with the Company s compensation philosophy and the Compensation/Stock Option Committee s charter, a copy of which maybe obtained on the Company s website at www.nanometrics.com. The Compensation Committee relies upon Company employees and outside compensation consultants to provide information and recommendations to establish specific compensation packages for executives.

### Philosophy and Objectives

The Compensation Committee believes that the most effective executive compensation program is one that is designed to align executives interest with that of the stockholders in terms of producing long-term enhanced stockholder value. The Compensation Committee also recognizes that competitive compensation is critical to the Company s ability to attract and retain superior employees in key positions.

Accordingly, the Compensation Committee s principal objectives are: (1) to develop and approve compensation packages that will attract and retain key executive talent; (2) to reward and motivate these individuals to achieve short-term and long-term corporate objectives that enhance stockholder value; and (3) link executive compensation to the achievement of financial, management or other performance goals; and (4) to support the Company s culture and core values, by promoting equity among the executive team and competitiveness vis-a-vis external opportunities. To that end, the Committee believes executive compensation packages provided by the Company to

its executives, including the named executive officers, includes both cash and stock-based compensation and a component of annual compensation is linked to performance of individual executives as well, as Company-wide performance.

### **Role of Executive Officers in Compensation Decisions**

The Compensation Committee makes all compensation decisions for the named executive officers and approves recommendations regarding equity awards to all employees.

The Chief Executive Officer annually reviews the performance of each executive officer (other than the Chief Executive Officer whose performance is reviewed by the Board of Directors). The Compensation Committee decisions are based in part, on these annual performance reviews, including with respect to salary adjustments, annual bonus amounts and annual stock option grants. The Compensation Committee can exercise its discretion in modifying any recommendations of the Chief Executive Officer and has done so in the past.

### **Setting Executive Compensation**

Based on the foregoing objectives, the Compensation Committee has structured the Company s overall executive compensation in order to motivate executives to achieve the business goals set by the Company; to reward the executives for achieving such goals; and to make the Company attractive from a compensation standpoint when compared to its peers. In order to aid the Compensation Committee in obtaining its objectives, the Compensation Committee engaged an outside human resources consulting firm and various other individual human resource consultants to provide it with information and recommendations with respect to compensation matters.

In making compensation decisions, the Compensation Committee analyzes data and suggestions from its consultants, including data on the compensation peer group of publicly-traded and privately-held semiconductor equipment manufacturing companies, as well as the Company s human resources department. This peer group consists of companies against which the Compensation Committee believes the Company must compete for talent and for stockholder investment. The companies that currently comprise the peer group are various semiconductor equipment and materials industry companies of similar size as follows:

ADE Corporation Advanced Energy Industries

Asyst Axcelis Technology

Cabot Microelectronics Cohu

Credence Systems FEI Company
LTX Corporation Mattson Technology
Rudolph Technologies Therma-Wave
Ultra Clean Holdings
Veeco Instruments Zygo Corporation

Data on the compensation practices of the above-mentioned peer group generally is gathered through searches of publicly available information, including publicly available databases. Publicly available information does not typically include information regarding target cash compensation, so we rely upon compensation surveys to benchmark target cash compensation levels against the above peer group. Peer group data is gathered with respect to base salary, bonus targets and all equity awards, including stock options. It does not include deferred compensation benefits or generally available benefits such as 401(k) plans or health care coverage.

Nanometrics goal is to target base pay at the 60 to 75<sup>th</sup> percentile among its peer group and total cash compensation at the market s 65th percentile. However, in determining base salary, the Compensation Committee also considers other factors such as job performance, skill set, prior experience, the executive stime in his or her position and/or with Nanometrics, internal consistency regarding pay levels for similar positions or skill levels with the Company, external pressures to attract and retain talent, and market conditions generally. Positioning base pay at the 60<sup>th</sup> to 75<sup>th</sup> percentile of peer companies aids Nanometrics in controlling fixed costs. Targeting total compensation at the 65<sup>th</sup> percentile, and therefore providing higher incentive compensation opportunity, rewards exceptional goal achievement and allows total compensation to be more competitive as a whole, while taking into account business cyclicality. Base pay and target cash compensation are analyzed by management to determine variances to our compensation targets using the combination of publicly available information and survey data as described above.

The Company competes with many larger companies for top executive-level talent. As such, the Committee generally sets compensation for its executive officers within a competitive range of compensation paid to similarly situated executives of the companies comprising the peer group. The Committee s process also includes an evaluation of the Company s overall performance as well as the individual performance of its executive officers. That evaluation is taken into account when determining cash bonuses and salary adjustments.

# **2006** Executive Compensation Components

For the fisc	al year ended December 30, 2006, the principal components of compensation for named executive officers were:
	Base salary;
	Cash bonus;
	Stock option grants;
	Retirement and other benefits; and
Base Salar	Perquisites and other personal benefits.
fiscal year. salary rang	any provides named executive officers and other employees with base salary to compensate them for services rendered during the Base salary ranges for named executive officers are determined for each executive based on their position and responsibility. Base es are designed to be competitive with the salaries paid to high tech executives of similarly-sized companies in the Company s peer ing its review of base salaries for executives, the Compensation Committee primarily considers:

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the Company s financial performance over the past year based upon revenues and operating results including profitability; and

the individual s performance of the executive officer s duties and areas of responsibility as evaluated by the Chief Executive Officer (except in the case of the Chief Executive Officer whose performance is evaluate by the Board of Director s.

Salary levels are typically considered annually as part of the Company s performance review process as well as upon a promotion or other change in job responsibility. Stock price performance has not been a factor in determining annual base salary compensation because the price of the Company s common stock is subject to a variety of factors outside our control.

Cash Bonus

The Compensation Committee also approves cash bonuses awarded to certain executive officers. The Compensation Committee views such bonuses as 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 salary.

Stock Option Grants

Grants under our Stock Option Plans enable the Company to:

enhance the link between the creation of stockholder value and long-term executive incentive compensation;

provide an opportunity for increased equity ownership by executives; and

maintain competitive levels of total compensation.

Stock option award levels are determined based on market data, vary among participants based on their positions within the Company and are granted at the Compensation Committees regularly scheduled and special meetings throughout the year. Management recommends that the Compensation Committee approve grants to newly hired or promoted executives, at the first meeting following their hire or promotion. Management recommends to the Compensation Committee that newly hired executive officers who are eligible to receive options are awarded such options at the next regularly scheduled Compensation Committee meeting following their hire date, unless the Compensation Committee has acted previously to approve their grants.

Options are awarded at the closing price of the Company s common stock on the date of the grant. The Committee has never granted options with an exercise price that is less than the closing price of the Company s common stock on the grant date.

The majority of the options granted by the Compensation Committee vest at a rate of  $33^{1}/3\%$  per year over the first three years of the seven-year option term. Vesting ceases upon termination of employment and, except in the case of death (subject to a one year limitation), disability or retirement and the vested stock options may generally be exercised for 90 days following the date of termination. Prior to the exercise of an option, the holder has no rights as a stockholder with respect to the shares subject to such option, including voting rights and the right to receive dividends or dividend equivalents.

Retirement and Other Benefits

All employees in the United States, including the executive officers, are eligible to participate in the Company s 401(k) plan, medical, dental and vision insurance, employee stock purchase plan, as well as the Company s life and disability insurance policy.

Perquisites and Other Personal Benefits

The Company provides named executive officers with perquisites and other personal benefits that the Company and the Compensation Committee believe are reasonable and consistent with its overall compensation program to better enable the Company to attract and retain employees for key positions. The Compensation Committee periodically reviews the levels of perquisites and other personal benefits provided to named executive officers.

The former Chief Executive Officer, Mr. Heaton was provided use of a company automobile and participation in the plans and programs described above. In addition, Mr. Heaton had access to a golf club membership sponsored by the Company, as does Mr. Coates.

Attributed costs of the personal benefits described above for the named executive officers for the fiscal year ended December 30, 2006, are included in column (i) of the Summary Compensation Table on page 8.

Change of control; severance Benefits

The Company has entered into Change of Control Severance Agreements with certain key employees, including certain of the named executive officers. The Change of Control Severance Agreements are designed to promote stability and continuity of senior management. Information regarding applicable payments under such agreements for the named executive officers is described below.

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.

The Company had previously entered into an agreement with Mr. Heaton pursuant to which the Company expects to pay Mr. Heaton his annual salary for one year following the date of his termination.

The Company had Previously entered into an agreement with Douglas J. McCutcheon pursuant to which the Company expects to pay Mr. McCutcheon his annual salary for the (1) year following the date of his termination.

### Tax and Accounting Implications

Deductibility of Executive Compensation

As part of its role, the Compensation Committee reviews and considers the deductibility of executive compensation under Section 162(m) of the Internal Revenue Code, which provides that the Company may not deduct compensation of more than \$1,000,000 that is paid to certain individuals. The Company believes that compensation paid under the management incentive plans is generally fully deductible for federal income tax purposes. However, in certain situations, the Compensation Committee may approve compensation that will not meet these requirements in order to ensure competitive levels of total compensation for its executive officers.

Accounting for Stock-Based Compensation

Beginning on January 1, 2006, the Company began accounting for stock-based payments in accordance with the requirements of FASB Statement 123(R).

### **Compensation of Executive Officers**

The following table sets forth the compensation paid by Nanometrics during the past fiscal year to (i) the chief executive officer, (ii) the chief financial officer, and (iii) each of the three most highly compensated executive officers (or such lesser number of executive officers as Nanometrics may have) of Nanometrics not serving as chief executive officer and (iv) up to an additional two individuals that would have been included under item (iii) but for the fact that the individuals were not serving as executive officers as of December 30, 2006, all of whom are collectively referred to as the Named Officers.

### SUMMARY COMPENSATION TABLE

Name and Principal Position	Year	Salary (\$)	Bonus (\$)(1)	Stock Award (\$)	Option Awards (\$)(2)	Non-Equity Incentive Plan Compensation (\$)	All Other  Compensation (\$)	Total (\$)
Bruce C. Rhine  Interim President and Chief Executive Officer, Chief Strategy Officer and Director	2006	115,681			192,474		6,250(3)	314,405
John D. Heaton (4)  Former President and Chief Executive Officer	2006	375,027	202,125		618,520		57,102(5)	1,252,774
Douglas J. McCutcheon, (6)  Former Executive Vice President, Finance and Administration and Chief Financial Officer	2006	285,000	119,700					404,700
Quentin B. Wright  Interim Chief Financial Officer, Chief Accounting Officer	2006	205,661			88,350			294,011
Vincent J. Coates  Chairman of the Board and Secretary	2006	204,800						204,800
Roger Ingalls, Jr. (7)	2006	274,975	88,286				111,013(8)	474,274

Former Senior Vice President of Standalone Sales

## Stock Options Granted in the Fiscal Year Ended December 30, 2006

The following table sets forth information with respect to stock options granted during the fiscal year ended December 30, 2006 to each of the Named Officers.

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

<sup>(2)</sup> Amounts shown do not reflect compensation actually received by the named executive officer. Instead, the amounts shown are the aggregate fair value of stock options granted for financial statement reporting purposes in 2006, as determined pursuant to SFAS 123R. The assumptions used to calculate the value of option awards are set forth under Note 1 of the Notes to Consolidated Financial Statements included in Nanometrics Annual Report on Form 10-K for fiscal 2006 filed with the SEC on March 15, 2007.

<sup>(3)</sup> Representing payment to Mr. Rhine of \$6,250 for an auto allowance.

<sup>(4)</sup> Mr. Heaton s employment with the Company terminated on March 26, 2007.

<sup>(5)</sup> This amount consists of \$36,715, \$12,887 and \$7,500, respectively, for accrued vacation, use of a Company car and a golf club membership to Mr. Heaton.

<sup>(6)</sup> Mr. McCutcheon s employment with the Company terminated on April 24, 2007.

<sup>(7)</sup> Mr. Ingalls employment with the Company terminated on August 4, 2006.

<sup>(8)</sup> This amount consists of \$111,013 severance paid to Mr. Ingalls following his employment termination.

### GRANTS OF PLAN-BASED AWARDS

### For Fiscal Year 2006

		Estimated Possible Payouts Under Non-Equity Incentive Plan		Estin	Estimated Possible  Payouts Under Equity  Incentive Plan Award All Other			All Other		
				Payou				Option Awards:		
		Awai	Awards					Number		Grant
							Stock Awards:	of	Exercise	Date Fair
							Number	Securities	or Base	Value of
							of Shares	Under-	price of	Stock and
							of Stock	lying	Option	Option
	Grant	Threshold	<b>.</b>				or Units	Options	Awards	Awards
Name	Date	(\$)	Target (\$)	Threshold (#)	Target (#)	Maximum (#)	(#)	(#)	(\$/sh)	(\$)
Bruce C. Rhine(1)	7/24/2006 11/30/2006	<b>,</b> , ,	\ ','	` '	` ,	` ′	` '	13,014 25,000	8.89 8.55	68,974 123,500
John D. Heaton	5/24/2006							100,000	10.23	618,520
Douglas J. McCutcheon										
Quentin B. Wright	7/5/2006							15,000	9.87	88,350
Roger Ingalls, Jr.										

<sup>(1)</sup> In connection with the acquisition of Accent Optical Technologies, Inc. on July 21, 2006, we also assumed 84,942 stock options to purchase Nanometrics common stock.

### 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 the end of the fiscal year which ended December 30, 2006.

# OUTSTANDING EQUITY AWARDS AT FISCAL 2006 YEAR-END

	Number of	Option Aw Number of	Option Awards			Stock Awards		
Name	Securities Underlying Unexercised Options (#) Exercisable	Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$)	Option Expiration Date	Number of Shares or Units of Stock that Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested (\$)		
Bruce C. Rhine		84,942 13,014 25,000	15.98 8.89 8.55	1/25/2016 7/24/2013 11/30/2013	,	W		
John D. Heaton	422,500 100,000 66,666	33,334	5.70 7.03 12.02	6/17/2010 8/19/2010 5/26/2011				

		100,000	10.23	5/24/2013
Douglas J. McCutcheon	50,000	100,000	12.03	9/14/2012
Quentin B. Wright	16,666	33,334 15,000	11.52 9.87	4/15/2012 7/5/2013
Roger Ingalls, Jr.				

### OPTION EXERCISES AND STOCK VESTED

The following table shows all stock options exercised and value realized upon exercise, and all stock awards vested and value realized upon vesting, by the named executive officers during fiscal year 2006, which ended on December 30, 2006.

### OPTION EXERCISES AND STOCK VESTED

### For Fiscal Year 2006

	Option	a Awards	Stock Awards Number of		
		Value	Shares		
	Number of Shares Acquired on	Realized On	Acquired on	Value Realized on	
Name	Exercise (#)	Exercise (\$)(1)	Vesting (#)	Vesting (\$)	
Bruce C. Rhine					
John D. Heaton					
Douglas J. McCutcheon					
Quentin B. Wright					
Roger Ingalls, Jr.	31,500	135,135			

<sup>(1)</sup> The value realized equals the difference between the option exercise price and the fair market value of Nanometrics common stock on the date of exercise, multiplied by the number of shares for which the option was exercised.

### **Compensation of Directors**

Directors who are not also employees of Nanometrics receive an annual retainer fee of \$15,000, plus \$1,500 for each board meeting attended. The audit committee chairman and compensation committee chairman receive an incremental \$8,000 and \$3,000 annual retainer, respectively, for serving in such capacity and each committee member receives an additional \$2,000 annual retainer. All Directors receive \$1,500 for special board or committee meetings attended on site and \$500 for telephonic meetings lasting greater than 30 minutes. Directors are also eligible to participate in the Company s Directors Stock Option Plan whereby each Director receives a stock option award of 20,000 options upon election to the Board and 2,500 stock options at the beginning of each fiscal quarter thereafter. The following table shows compensation information for Nanometrics directors for fiscal year 2006.

### DIRECTOR COMPENSATION

### For Fiscal Year 2006

	Fees Earned or	Stock	Option	Option	All Other Compensation	
Name	Paid in Cash (\$)	Awards (\$)	Awards (\$)	Awards (#)	(\$)(1)	Total (\$)
Vincent J. Coates					9,563	9,563
J. Thomas Bentley	40,500		60,769	10,000	3,782	105,051
William G. Oldham	34,500		60,769	10,000		95,269
Bruce C. Rhine(2)						
Stephen J Smith	30,500		60,769	10,000		91,269
Edmond R. Ward	38,500		60,769	10,000	339	99,608

John D. Heaton(2)				
Norman V. Coates(3)	6,750	60,769	10,000	67,519

- (1) Representing (i) payment to Mr. Vincent Coates of \$9,563 for golf club membership; (ii) payment to Mr. Bentley of \$3,782 for board of directors corporate governance training course and travel; and (iii) payment to Mr. Ward of \$339 for board of directors corporate governance training course and travel.
- (2) Compensation is shown in the Summary Compensation Table on page 8.
- (3) Mr. Norman Coates was a director until March 27, 2006.

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

Pursuant to the terms of an agreement between Nanometrics and Vincent J. Coates, the Chairman of the Board of Nanometrics, dated May 1, 1985, as amended and restated in August 1996 and April 1998, Nanometrics 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 October 2006, Nanometrics entered into an agreement with John D. Heaton pursuant to which Nanometrics agreed to pay Mr. Heaton his annual salary of \$404,250 for a period of twelve (12) months 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 Nanometrics as President, Chief Executive Officer and director. Mr. Heaton s employment with Nanometrics terminated on March 26, 2007, and, pursuant to his agreement, the Company expects to pay Mr. Heaton his annual salary through March 26, 2008 and to provide twelve (12) months accelerated vesting with respect to his outstanding, unvested equity awards.

In September 2005, Douglas J. McCutcheon became Executive Vice President, Finance and Administration and Chief Financial Officer of Nanometrics. In connection with Mr. McCutcheon s employment agreement, Nanometrics agreed to pay Mr. McCutcheon twelve (12) months of continued salary at his then-effective annual rate if Nanometrics terminates him for any reason other than for good cause, provided that Mr. McCutcheon executes a general release. Mr. McCutcheon s employment with Nanometrics terminated on April 24, 2007 and the Company expects to pay Mr. McCutcheon his annual salary through April 24, 2008.

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

The table below estimates amounts payable upon a separation as if the individuals were separated on December 30, 2006.

		Not in Connection with a Change of Control		In Connection with a Change of Control Termination
Name	Benefit	Due to Disability or Termination Without Cause (\$)	Due to Death (\$)	Without Cause, for Good Reason or Due to Disability or Death (\$)
John D. Heaton	Severance pay	404,250	Death (\$)	808,500
John D. Heuton	Variable compensation payment	101,230		000,500
	Stock option vesting acceleration	182,655		594,647
	Health care benefits continuation	15,516		31,032
	Life insurance continuation	,		2 1,00 =
	Total value:	602,421		1,434,179
Vincent J. Coates	Severance pay	1,024,000		1,024,000
	Variable compensation payment			
	Stock option vesting acceleration			
	Health care benefits continuation			
	Life insurance continuation			
	Total value:	1,024,000		1,024,000
Douglas J. McCutcheon	Severance pay	285,000		
	Variable compensation payment			
	Stock option vesting acceleration			
	Health care benefits continuation			
	Life insurance continuation			

**Total value:** 

285,000

### Compensation/Stock Option Committee Interlocks and Insider Participation

Messrs. Edmond R. Ward, J. Thomas Bentley and Stephen J Smith served on the Compensation Committee during fiscal year 2006. No member of such Compensation Committee is or was at any time an officer or employee of Nanometrics or any of its subsidiaries. During fiscal year 2006, none of our executive officers served on the compensation committee or board of any other company whose executive officers serve as a member of our board or compensation committee.

### COMPENSATION COMMITTEE REPORT

### **Compensation/Stock Option Committee Report**

The Compensation Committee of the Company has reviewed and discussed the Compensation Discussion and Analysis required by Item 402(b) of Regulation S-K with management and, based on such review and discussions, the Compensation Committee recommended to the Board that the Compensation Discussion and Analysis be included in this Form 10-K/A.

### Members of the Compensation/Stock Option Committee

Edmond R. Ward, Chairman

J. Thomas Bentley

Stephen J Smith

# ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

# **Equity Compensation Plan Information**

All of the Company s equity compensation plans except the 2002 Nonstatutory 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 30, 2006.

		Weight	ed-average	Number of securities remaining
	Number of securities to be	exercise price of		available for future issuance
	issued upon exercise of			under equity compensation
	outstanding options,	outstand	ling options,	plans (excluding securities
Plan category	warrants and rights (a)	r	ants and ights (b)	reflected in column (a)) (c)
Equity compensation plans approved by security holders Equity compensation plans not approved by security holders(1)	3,070,965 755,841	\$ \$	11.10	1,042,228 39,672
Total	3,826,806	\$	10.60	1,081,900

<sup>(1)</sup> The material features of each plan adopted without the approval of security holders is set forth in Footnote 3 to the consolidated financial statements included in the Company s Form 10-K for the fiscal year ended December 30, 2006, and is incorporated by reference herein.
Nanometrics Principal Stockholders

The following table sets forth beneficial ownership of Nanometrics common stock as of April 13, 2007, by each director, by each of the executive officers, by all directors and executive officers as a group, and by all persons known to Nanometrics to be the beneficial owners of more than 5% of Nanometrics stock. Unless otherwise indicated, the address of each executive officer or director of Nanometrics is 1550 Buckeye Drive, Milpitas, CA 95035. As of the close of business on April 13, 2007, there were 18,153,099 shares of common stock outstanding.

**Amount and Nature of** 

	Beneficial Ownership(1) Shares Stock Options			
		Exercisable within 60 days	Total Shares Beneficially	Percent of
Name of Beneficial Owner Principal Stockholders	Shares	of 4/13/07	Owned	Class
Dimensional Fund Advisors LP (2)	1,102,900		1,102,900	6.0%
1299 Ocean Avenue, 11th Floor				
Santa Monica, CA 90401				
Peter M. Joost (3)	1,483,644		1,483,644	8.1%
c/o Joost Enterprises				

San Francisco, CA 94104			
Royce and Associates, LLC (4)	1,190,400	1,190,400	6.5%
1414 Avenue of the Americas			
New York, NY 10019			
The TCW Group (5)	1,848,639	1,848,639	10.1%
865 South Figueroa Street			
Los Angeles, CA 90017			
Wasatch Advisors, Inc. (6)	1,070,543	1,070,543	5.9%
150 Social Hall			
Salt Lake City, UT 84111			

### Amount and Nature of

#### Beneficial Ownership(1) Shares **Stock Options Total Shares** Exercisable within 60 days Beneficially Percent of Name of Beneficial Owner Directors and Officers of 4/13/07 Shares Owned Class Vincent J. Coates(7) 3,376,154 3,376,154 18.6% J. Thomas Bentley 19,999 \* 7,083 27,082 \* William G. Oldham, Ph.D. 29,999 29,999 Bruce C. Rhine(8) 1,356,719 37,763 1,394,482 7.6% Stephen J Smith, Ph.D. 19,999 19,999 Edmond R. Ward, Ph.D. 2,000 29,999 31,999 \* Bruce A. Crawford 24,813 40,845 65,658 52,292 Douglas J. McCutcheon 2,292 50,000 Quentin B. Wright \* 1,359 38,333 39,692 John D. Heaton 655,833 655,833 3.4% Rajeev Mundhe(9) 8,545 9,689 18,234 All named officers and directors as a group (11 persons) 4,794,997 916,427 5,711,424 29.6%

# ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE Related Party Transaction Policy

Nanometrics policy towards Related Party Transactions requires that the Audit Committee review any transaction or series of transactions in excess of \$50,000 in any year between Nanometrics, on the one hand, and an officer, director of 5% or greater stockholder, on the other. Nanometrics Chief Financial Officer has responsibility for bringing the facts concerning a proposed related party transaction to the Audit Committee. The policy permits approval only in the event of a finding that the transaction is on terms no less favorable than would have been obtained in an ordinary arms-length transaction with an independent third party.

<sup>\*</sup> Less than 1%.

<sup>(1)</sup> As determined in accordance with Rule 13d-3 under the Securities and Exchange Act of 1934.

<sup>(2)</sup> According to a 13G/A filed with the SEC on February 9, 2007, Dimension Fund Advisors LP may be deemed to be the beneficial owner of 1,102,900 shares of common stock.

<sup>(3)</sup> According to a Schedule 13G/A filed with the SEC on February 12, 2007, Peter M. Joost may be deemed to be the beneficial owner of 1,483,664 shares of common stock.

<sup>(4)</sup> According to a Schedule 13G/A filed with the SEC on January 23, 2007, Royce & Associates, LLC may be deemed to be the beneficial owner of 1,190,400 shares of common stock.

<sup>(5)</sup> According to a Schedule 13G/A filed with the SEC on February 14, 2007, The TCW Group, Inc., may be deemed to be the beneficial owner of 1,848,639 shares of common stock.

<sup>(6)</sup> According to a 13G/A filed with the SEC on February 15, 2007, Wasatch Advisors, Inc. may be deemed to be the beneficial owner of 1.070,543 shares of common stock.

<sup>(7)</sup> 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.

<sup>(8)</sup> Includes (i) 2,926 shares held of record by Mr. Rhine, (ii) 12,910 shares held of record by Mr. Rhine and his spouse as joint tenants with rights of survivorship, (iii) 934,683 shares held of record by the Bruce Charles Rhine and Martha Hawn Rhine Family Trust and (iv) 406,200 shares held of record by the Rhine 2000 Children s Trust. Mr. Rhine disclaims beneficial ownership with respect to the shares held by the Rhine 2000 Children s Trust.

<sup>(9)</sup> Mr. Mundhe resigned as Senior Vice President of Sales effective March 13, 2007.

### ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The following table summarizes the aggregate fees that we paid or expect to pay our independent registered public accounting firm, BDO Seidman, LLP for fiscal 2006 and 2005.

	Fiscal 2006	Percentage Pre-approved by Audit Committee	Fiscal 2005	Percentage Pre-approved by Audit Committee
Audit Fees (1)	\$ 1,903,109	100 %	\$ 1,851,356	100 %
Audit Related Fees(2)	162,220	100 %	291,514	100 %
Tax Fees(3)		100 %	3,956	100 %
All Other Fees				
Total	\$ 2.065.329		\$ 2,146,826	

(1) Fees for audit services consist of:

Audit of our annual financial statements including management s assessment of internal controls over financial reporting Reviews of our quarterly financial statements

Restatement of annual and quarterly financial statements (fiscal 2005 only)

Statutory and regulatory audits, consents and other services

- (2) Fees for audit-related services billed in fiscal 2006 consisted of (i) consultations and due diligence related to our acquisition of Accent Optical Technologies, Inc. (\$144,345) and (ii) consultation concerning financial accounting and reporting standards (\$17,875). Fees for audit-related services billed in fiscal 2005 consisted of consultations and due diligence related to our withdrawn effort to merge with August Technology Corporation (\$281,891), an amount that was subsequently reimbursed to us by August Technology Corporation) (ii) consultation concerning financial accounting and reporting standards (\$9,623).
- (3) This figure relates to consultation concerning ex-patriot tax issues in fiscal 2005.

In considering the nature of the services provided by the independent registered public accountants, the audit committee determined that such services are compatible with the provision of independent audit services. The audit committee discussed these services with the independent registered public accountants and our management to determine that they are permitted under the rules and regulations concerning auditors independence promulgated by the Securities and Exchange Commission to implement the Sarbanes-Oxley Act of 2002, as well as the American Institute of Certified Public Accountants.

### **Audit Committee Pre-Approval Policy**

Pursuant to our audit committee charter, our audit committee must pre-approve all audit and non-audit services, and the related fees, provided to us by our independent auditors, or subsequently approve non-audit services in those circumstances where a subsequent approval is necessary and permissible under the Exchange Act or the rules of the Securities and Exchange Commission. Accordingly, the audit committee pre-approved all services and fees provided by BDO Seidman, LLP during the year ended December 30, 2006 and has concluded that the provision of these services is compatible with the accountants independence.

## PART IV

# ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES Exhibits.

The following exhibits are filed with this Annual Report on Form 10-K/A:

Exhibit No. 31	Description Rule 13a-14(a)/15d-14(a) Certifications
31.1	Certification of Bruce C. Rhine, interim principal executive officer of the Registrant, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification of Quentin B. Wright, interim principal financial officer of the Registrant, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32	Section 1350 Certifications
32.1	Certification of Bruce C. Rhine, interim principal executive officer of the Registrant, and Quentin B. Wright, interim principal financial officer of the Registrant pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

### **SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Dated: April 30, 2007

### NANOMETRICS INCORPORATED

By: /s/ Quentin B. Wright
Quentin B. Wright
Interim Chief Financial Officer