NANOMETRICS INC Form SC 13G/A February 14, 2008

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934 (Amendment No. 1)*

Nanometrics Incorporated

(Name of Issuer)

Common Stock, par value \$0.001 per share

(Title of Class of Securities)

630077105

(CUSIP Number)

December 31, 2007

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- o Rule 13d-1(b)
- o Rule 13d-1(c)
- x Rule 13d-1(d)

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

^{*}The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

* This Schedule 13G/A amends the initial Schedule 13G filed by the Reporting Person on February 13, 1989 and subsequent Schedules 13G reports filed on each of February 6, 1996, February 16, 1999, February 7, 2000 and February 6, 2001.

CUSIP No. 630077105

1.	Names of Reporting Persons Vincent J. Coates		
	I.R.S. Identification Nos. of ab	ove persons (entities only).	
2.	Check the Appropriate Box if a (a) (b)	a Member of a Group (See) o o	Instructions)
3.	SEC Use Only		
4.	Citizenship or Place of Organiz United States of America	zation	
N 1 6	5.		Sole Voting Power 3,498,614
Number of Shares Beneficially Owned by	6.		Shared Voting Power -0-
Each Reporting Person With	7.		Sole Dispositive Power 3,498,614
Terson Willi	8.		Shared Dispositive Power -0-
9.	Aggregate Amount Beneficially Owned by Each Reporting Person 3,498,614		
10.	Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) o		
11.	Percent of Class Represented by Amount in Row (9) 18.6		
12.	Type of Reporting Person (See IN	Instructions)	

Item 1.			
(a) Name of Issuer: Nanometrics Incorporated			
(b) Address of Issuer s Principal Executive Offices: 1550 Buckeye Drive, Milpitas, CA 95035			
Item 2.			
(a) Name of Person Filing: Vincent J. Coates			
(b) Address of Principal Business Office or, if none, Residence: 1550 Buckeye Drive, Milpitas, CA 95035			
(c) Citizenship: United States of America			
(d) Title of Class of Securities: Common Stock, par value \$0.001 per share			
(e) CUSIP Number: 630077105			
Item 3. Not applicable.			
Item 4. Ownership.			
Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.			
(a) Amount beneficially owned: 3,498,614 shares (consisting of (i) 120 shares held by the Reporting Person and (ii) 3,498,494 shares held by the Vincent J. Coates Separate Property Trust, U/D/T dated August 7, 1981.			

(b) Percent of 2007).	class: 18.6 (percentage ownership is calculated based on 18,767,652 shares of common stock outstanding as of December 31	
(c) Number of	f shares as to which the person has:	
(i)	Sole power to vote or to direct the vote <u>3,498,614</u> .	
(ii)	Shared power to vote or to direct the vote <u>-0-</u> .	
(iii)	Sole power to dispose or to direct the disposition of <u>3.498.614</u> .	
(iv)	Shared power to dispose or to direct the disposition of <u>-0-</u> .	
Item 5.	Ownership of Five Percent or Less of a Class	
Not applicable.		
Item 6.	Ownership of More than Five Percent on Behalf of Another Person.	
Not applicable	e.	
Item 7. Holding Com	Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent npany	
Not applicable	e.	
Item 8.	Identification and Classification of Members of the Group	
Not applicable	e.	

Item 9.	Notice of Dissolution of Group
Not applicable	
Item 10. Co	ertification
Not applicable	
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SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

February 14, 2008

Date

/s/ Vincent J. Coates
Signature

Vincent J. Coates Name

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