NANOMETRICS INC Form 8-K April 29, 2008

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D. C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

April 29, 2008

Date of Report (date of earliest event reported)

Nanometrics Incorporated

(Exact name of Registrant as specified in charter)

Delaware (State or other jurisdiction

0-13470 (Commission File Number) 94-2276314 (I. R. S. Employer

 $of\ incorporation)$

Identification No.)

1550 Buckeye Drive, Milpitas, California 95035

(Address of principal executive offices)

Registrant s telephone number, including area code: (408) 545-6000

N/A

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- " Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- " Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- " Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 2.02 Results of Operations and Financial Condition.

On April 29, 2008, Nanometrics Incorporated (the Company) issued a press release announcing financial results for its first quarter ended March 29, 2007. A copy of the press release is attached as Exhibit 99.1 to this current report on Form 8-K and is incorporated herein by reference.

The information in this current report on Form 8-K and the exhibits attached hereto shall not be deemed filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the Exchange Act) nor otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, regardless of any general incorporation language in such filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No. Description

99.1 Press release issued by Nanometrics Incorporated dated April 29, 2008, reporting first quarter financial results

Signature

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Dated: April 29, 2008 NANOMETRICS INCORPORATED

/s/ Gary C. Schaefer Gary C. Schaefer

Chief Financial Officer and

Vice President of Finance and Administration

INDEX TO EXHIBITS

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99.1 Press release issued by Nanometrics Incorporated dated April 29, 2008, reporting first quarter financial results