

Dox Joseph F
 Form 4
 February 08, 2008

FORM 4

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION
 Washington, D.C. 20549**

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person *
 Dox Joseph F

2. Issuer Name and Ticker or Trading Symbol
 NANOMETRICS INC [NANO]

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)
 1550 BUCKEYE DRIVE
 (Street)

3. Date of Earliest Transaction
 (Month/Day/Year)
 10/31/2007

Director 10% Owner
 Officer (give title below) Other (specify below)

MILPITAS, CA 95035

4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)
 Form filed by One Reporting Person
 Form filed by More than One Reporting Person

(City) (State) (Zip)

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Code (Instr. 8) | 4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|----------------------------------------------------|--------------------|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------|
| | | | | (A) or (D) | Price | | |
| Common Stock | 10/31/2007 | | J(1) | D | \$ 216 10.41 | 485 | D |
| Common Stock | 01/02/2008 | | A | A | 2,000 (2) (3) \$ 0 | 2,485 | D |
| Common Stock | 10/31/2007 | | J(1) | D | \$ 6 10.41 | 305 | I |
| Common Stock | 10/31/2007 | | J(1) | D | \$ 6 10.41 | 1,125 | I |
| | | | | | | | See footnote (4) |
| | | | | | | | See footnote (5) |

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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(9-02)

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned
(e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5) | 6. Date Exercisable and Expiration Date (Month/Day/Year) | 7. Title and Amount of Underlying Securities (Instr. 3 and 4) | 8. Price of Derivative Security (Instr. 5) | 9. Number of Derivative Securities Beneficially Owned Following Reporting Transaction (Instr. 6) |
|--------------------------------------------|--------------------------------------------------------|--------------------------------------|----------------------------------------------------|--------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------|--------------------------------------------------------------------------------------------------|
|--------------------------------------------|--------------------------------------------------------|--------------------------------------|----------------------------------------------------|--------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------|--------------------------------------------------------------------------------------------------|

Reporting Owners

| Reporting Owner Name / Address | Relationships | | | |
|----------------------------------------------------------|---------------|-----------|---------|-------|
| | Director | 10% Owner | Officer | Other |
| Dox Joseph F 1550 BUCKEYE DRIVE MILPITAS, CA 95035 | | X | | |

Signatures

/s/ Quentin B. Wright, by power of attorney
Date: 02/08/2008

__Signature of Reporting Person

Date

Explanation of Responses:

* If the form is filed by more than one reporting person, see Instruction 4(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

(1) Shares were forfeited pursuant to an escrow agreement entered into on January 25, 2006 in connection with the acquisition of Accent Optical Technologies, Inc. ("Accent") by the Issuer in satisfaction of certain claims made by the Issuer arising under the merger agreement by and among Issuer, Alloy Merger Corporation, Accent and Sanford S. Wadler, as Stockholder Agent, as amended.

(2) Shares are represented by restricted stock units. Each restricted stock unit represents a contingent right to receive one share of NANO common stock.

(3) The restricted stock units shall vest in three equal annual installments, with the first vesting event occurring on the later of the first anniversary of the date of grant and the opening of any applicable Company trading window; the second vesting event occurring on the later of the second anniversary of the date of grant and the opening of any applicable Company trading window; and the third vesting event occurring on the later of the third anniversary of the date of grant and the opening of any applicable Company trading window.

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(4) Shares are held directly by the Alexia Dox Trust (the "AD Trust"). Ira Greenspan is the Trustee of the AD Trust and has sole voting and investment power over the shares held by the AD Trust. The Reporting Person disclaims beneficial ownership of these securities, and this report shall not be deemed an admission that the Reporting Person is the beneficial owner of such securities for purposes of Section 16 or for any other purpose.

(5) Shares are held directly by the Emilie Dox Trust (the "ED Trust"). Ira Greenspan is the Trustee of the ED Trust and has sole voting and investment power over the shares held by the ED Trust. The Reporting Person disclaims beneficial ownership of these securities, and this report shall not be deemed an admission that the Reporting Person is the beneficial owner of such securities for purposes of Section 16 or for any other purpose.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.

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