

HEATON JOHN DAVIS
Form 4
May 22, 2007

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 *
HEATON JOHN DAVIS

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

MILPITAS, CA 95035

(City) (State) (Zip)

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

3. Date of Earliest Transaction
(Month/Day/Year)
05/17/2007

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

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

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

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

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. Transaction 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) |
|---------------------------------|--------------------------------------|----------------------------------------------------|--------------------------------|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------|
| | | | | Code V | Amount or Price | | |
| Common Stock | 05/17/2007 | | M | | 1,900 A \$ 5.7 | 1,900 | D |
| Common Stock | 05/17/2007 | | S | | 1,900 D \$ 6.25 | 0 | D |
| Common Stock | 05/21/2007 | | M | | 16,200 A \$ 5.7 | 16,200 | D |
| Common Stock | 05/21/2007 | | S | | 16,200 D \$ 6.25 | 0 | D |

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

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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 | | 6. Date Exercisable and Expiration Date (Month/Day/Year) | | 7. Title and Amount of Underlying Security (Instr. 3 and 4) | Amount of Underlying Securities (Instr. 3 and 4) |
|--------------------------------------------|--------------------------------------------------------|--------------------------------------|----------------------------------------------------|--------------------------------|------------------------------------|--------------------|----------------------------------------------------------|-----------------|-------------------------------------------------------------|--------------------------------------------------|
| | | | | | Acquired (A) | or Disposed of (D) | Date Exercisable | Expiration Date | | |
| Non-qualified Stock Option | \$ 5.7 | 05/17/2007 | | M | 1,900 | | 06/17/2004 | 06/17/2010 | Common Stock | 33 |
| Non-qualified Stock Option | \$ 5.7 | 05/21/2007 | | M | 16,200 | | 06/17/2004 | 06/17/2010 | Common Stock | 33 |

Reporting Owners

| Reporting Owner Name / Address | Relationships | | | |
|---------------------------------------------------------------|---------------|-----------|---------|-----------|
| | Director | 10% Owner | Officer | Other |
| HEATON JOHN DAVIS 1550 BUCKEYE DRIVE MILPITAS, CA 95035 | | | | Affiliate |

Signatures

John D. Heaton 05/22/2007
 **Signature of Date
 Reporting Person

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).

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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