

HEATON JOHN DAVIS  
Form 4  
May 22, 2007

**FORM 4**

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

OMB APPROVAL

OMB Number: 3235-0287  
Expires: January 31, 2005  
Estimated average burden hours per response... 0.5

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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SEC 1474  
(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		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Underlying Security (Instr. 3 and 4)	Amount of Underlying Security (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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