

Crawford Bruce A  
 Form 4  
 March 29, 2011

**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 \*  
 Crawford Bruce A

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)  
 C/O NANOMETRICS, INC., 1550  
 BUCKEYE DRIVE  
 (Street)

3. Date of Earliest Transaction  
 (Month/Day/Year)  
 03/25/2011

\_\_\_\_ Director \_\_\_\_\_ 10% Owner  
 Officer (give title below) \_\_\_\_\_ Other (specify below)  
 Chief Operating Officer

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. 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 (A) or (D)		
Common Stock	03/25/2011		M		1,388 A \$ 0.98		D
Common Stock	03/25/2011		M		555 A \$ 1.17		D
Common Stock	03/25/2011		M		230 A \$ 7.5		D
Common Stock	03/25/2011		S		2,173 (1) D \$ 16.9		D

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)	Amount or Number of Shares
Non-Qualified Stock Option (right to buy)	\$ 0.98	03/25/2011		M	1,388	<u>(2)</u> 11/19/2015	Common Stock	1,388
Non-Qualified Stock Option (right to buy)	\$ 1.17	03/25/2011		M	555	<u>(3)</u> 02/25/2016	Common Stock	555
Non-Qualified Stock Option (right to buy)	\$ 7.5	03/25/2011		M	230	<u>(4)</u> 09/03/2016	Common Stock	230

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Crawford Bruce A C/O NANOMETRICS, INC. 1550 BUCKEYE DRIVE MILPITAS, CA 95035			Chief Operating Officer	

## Signatures

/s/ Ronald W. Kisling,  
Attorney-in-Fact

03/28/2011

\*\*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) The sales reported in this Form 4 were effected pursuant to Rule 10b5-1 trading plans adopted by the reporting person on August 30, 2010.
- (2) One thirty-sixth (1/36th) of the shares shall vest and become exercisable in equal monthly installments starting on the monthly anniversary of the date of grant (November 19, 2008).
- (3) One thirty-sixth (1/36th) of the shares shall vest and become exercisable in equal monthly installments starting on the monthly anniversary of the date of grant (February 25, 2009).
- (4) One third (1/3rd) of the shares are fully vested on the date of grant, with the remaining shares vesting (starting on the one year anniversary of the date of grant) at a rate of one twenty-fourth (1/24th) per month until fully vested on September 3, 2012.

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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