Behnke John R. Form 4 February 09, 2012

FORM 4

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

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF

SECURITIES

OMB

OMB APPROVAL

Number:

3235-0287

0.5

January 31, Expires:

2005 Estimated average

burden hours per response...

subject to Section 16. Form 4 or Form 5 obligations may continue.

See Instruction

Check this box

if no longer

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(b).

(Last)

1. Name and Address of Reporting Person * Behnke John R.

2. Issuer Name and Ticker or Trading Symbol

INTERMOLECULAR INC [IMI]

5. Relationship of Reporting Person(s) to

Issuer

(First)

(Middle)

3. Date of Earliest Transaction

(Month/Day/Year)

Director 10% Owner

(Check all applicable)

01/23/2012

X_ Officer (give title Other (specify below)

below) SVP & GM Semiconductor Group

INTERMOLECULAR, INC., 3011 NORTH FIRST STREET

(Street)

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

6. Individual or Joint/Group Filing(Check

Applicable Line)

X Form filed by One Reporting Person Form filed by More than One Reporting

Person

SAN JOSE, CA 95134-2004

(Zip) 2. Transaction Date 2A. Deemed

(State)

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

1. Title of Security (Instr. 3)

(City)

(Month/Day/Year)

Execution Date, if

(Month/Day/Year)

3. 4. Securities TransactionAcquired (A) or Code Disposed of (D) (Instr. 3, 4 and 5) (Instr. 8)

5. Amount of Securities Beneficially Owned Following

6. Ownership 7. Nature of Form: Direct Indirect (D) or Indirect Beneficial (I) (Instr. 4)

Ownership (Instr. 4)

(A)

Reported Transaction(s)

(Instr. 3 and 4) Code V Amount (D) Price

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

Persons who respond to the collection of SEC 1474 information contained in this form are not (9-02)required to respond unless the form displays a currently valid OMB control number.

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

1. Title of Derivative Conversion Security or Exercise

3. Transaction Date 3A. Deemed (Month/Day/Year)

Execution Date, if any

4. 5. Number of TransactionDerivative Code Securities

6. Date Exercisable and **Expiration Date** (Month/Day/Year)

7. Title and Amount of 8 **Underlying Securities** (Instr. 3 and 4)

Edgar Filing: Behnke John R. - Form 4

(Instr. 3)	Price of Derivative Security		(Month/Day/Year)	(Instr.	8)	Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)					
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares
Stock Option (right to buy)	\$ 8.84	01/23/2012		A		35,000		<u>(1)</u>	01/23/2022	Common Stock	35,000

Reporting Owners

Reporting Owner Name / Address Relationships

Director 10% Owner Officer Other

Behnke John R. INTERMOLECULAR, INC. 3011 NORTH FIRST STREET SAN JOSE, CA 95134-2004

SVP & GM Semiconductor Group

Signatures

/s/ Peter L. Eidelman as Attorney in Fact for Mr. Behnke

02/06/2012

**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).

The shares subject to the option will vest and become exercisable as to 25% of the shares on the first anniversary measured from February 1, 2012 (the "Vesting Commencement Date") and the remaining shares subject to the option vest in 36 successive, equal monthly installments thereafter on each monthly anniversary of the Vesting Commencement Date, subject to the Reporting Person's continued employment or service relationship with the Issuer on each such vesting date.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.

Reporting Owners 2