

INTERMOLECULAR INC
Filed by
RAGING CAPITAL MANAGEMENT, LLC

FORM SC 13D/A
(Amended Statement of Beneficial Ownership)

Filed 11/17/16

Address	3011 NORTH FIRST STREET SAN JOSE, CA 95134
Telephone	(408) 582-5700
CIK	0001311241
Symbol	IMI
SIC Code	3674 - Semiconductors and Related Devices
Industry	Semiconductors
Sector	Technology
Fiscal Year	12/31

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

SCHEDULE 13D
(Rule 13d-101)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT
TO § 240.13d-1(a) AND AMENDMENTS THERETO FILED PURSUANT TO
§ 240.13d-2(a)

(Amendment No. 5) ¹

Intermolecular, Inc.
(Name of Issuer)

Common Stock, \$0.001 par value
(Title of Class of Securities)

45882D 10 9
(CUSIP Number)

STEVE WOLOSKY, ESQ.
OLSHAN FROME WOLOSKY LLP
1325 Avenue of the Americas
New York, New York 10019
(212) 451-2300

(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)

November 15, 2016
(Date of Event Which Requires Filing of This Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§ 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box .

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See § 240.13d-7 for other parties to whom copies are to be sent.

¹ The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, *see the Notes*).

1	NAME OF REPORTING PERSON Raging Capital Management, LLC	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) <input type="checkbox"/> OR 2(e)	
6	CITIZENSHIP OR PLACE OF ORGANIZATION DELAWARE	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER - 0 -
	8	SHARED VOTING POWER 14,516,657
	9	SOLE DISPOSITIVE POWER - 0 -
	10	SHARED DISPOSITIVE POWER 14,516,657
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 14,516,657	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 29.3%	
14	TYPE OF REPORTING PERSON IA	

1	NAME OF REPORTING PERSON William C. Martin	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) <input type="checkbox"/> OR 2(e)	
6	CITIZENSHIP OR PLACE OF ORGANIZATION USA	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER - 0 -
	8	SHARED VOTING POWER 14,516,657
	9	SOLE DISPOSITIVE POWER - 0 -
	10	SHARED DISPOSITIVE POWER 14,516,657
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 14,516,657	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 29.3%	
14	TYPE OF REPORTING PERSON HC	

1	NAME OF REPORTING PERSON Kenneth H. Traub	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) <input type="checkbox"/> OR 2(e)	
6	CITIZENSHIP OR PLACE OF ORGANIZATION USA	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER - 0 -
	8	SHARED VOTING POWER - 0 -
	9	SOLE DISPOSITIVE POWER - 0 -
	10	SHARED DISPOSITIVE POWER - 0 -
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON - 0 -	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 0%	
14	TYPE OF REPORTING PERSON IN	

The following constitutes Amendment No. 5 to the Schedule 13D filed by the undersigned (“Amendment No. 5”). This Amendment No. 5 amends the Schedule 13D as specifically set forth herein.

Item 3. Source and Amount of Funds or Other Consideration.

Item 3 is hereby amended and restated to read as follows:

The aggregate purchase price of the 14,516,657 Shares held directly by Raging Master is approximately \$34,265,532, including brokerage commissions. Such Shares were acquired with the working capital of Raging Master.

Raging Master effects purchases of securities primarily through margin accounts maintained for it with prime brokers, which may extend margin credit to it as and when required to open or carry positions in the margin accounts, subject to applicable federal margin regulations, stock exchange rules and the prime brokers’ credit policies. In such instances, the positions held in the margin accounts are pledged as collateral security for the repayment of debit balances in the accounts.

Item 5. Interest in Securities of the Issuer.

Items 5(a) and (c) are hereby amended and restated to read as follows:

(a) The aggregate percentage of Shares reported owned by each person named herein is based upon 49,531,028 Shares outstanding as of October 28, 2016, which is the total number of Shares outstanding as reported in the Issuer’s Form 10-Q filed with the Securities and Exchange Commission on November 2, 2016.

As of the filing of this Amendment No. 5, each of Raging Capital and William C. Martin may be deemed to beneficially own the 14,516,657 Shares, constituting approximately 29.3% of the Shares outstanding, held by Raging Master by virtue of their relationships with Raging Master discussed in further detail in Item 2.

As of the filing of this Amendment No. 5, Kenneth H. Traub did not beneficially own any Shares of the Issuer.

Each of the Reporting Persons, as a member of a “group” with the other Reporting Persons for purposes of Rule 13d-5(b)(1) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), may be deemed to beneficially own the Shares owned by the other Reporting Persons. The filing of this Schedule 13D shall not be deemed an admission that the Reporting Persons are, for purposes of Section 13(d) of the Exchange Act, the beneficial owners of any Shares he or it does not directly own. Each of the Reporting Persons specifically disclaims beneficial ownership of the Shares reported herein that he or it does not directly own. Without limiting the foregoing sentence, Raging Master specifically disclaims beneficial ownership of the securities of the Issuer held by it by virtue of its inability to vote or dispose of such securities as a result of the IMA.

(c) Schedule B annexed hereto lists all transactions in the Shares since the filing of Amendment No. 4 to the Schedule 13D by the Reporting Persons. All of such transactions were effected in the open market.

SIGNATURES

After reasonable inquiry and to the best of his knowledge and belief, each of the undersigned certifies that the information set forth in this statement is true, complete and correct.

Dated: November 17, 2016

Raging Capital Management, LLC

By: /s/ William C. Martin
Name: William C. Martin
Title: Chairman, Chief Investment Officer and Managing Member

/s/ William C. Martin
William C. Martin

/s/ Kenneth H. Traub
Kenneth H. Traub

SCHEDULE B

Transactions in the Shares of the Issuer Since the Filing of Amendment No. 4

<u>Class of Security</u>	<u>Shares Purchased</u>	<u>Price (\$)</u>	<u>Date of Purchase</u>
<u>RAGING CAPITAL MASTER FUND, LTD.</u>			
Common Stock	937,504	0.8437	11/15/2016
Common Stock	52,948	1.0000	11/17/2016