INTERMOLECULAR INC Form SC 13D/A August 11, 2016

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. 3)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)

August 9, 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 x.

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.

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

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.

but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP NO. 45882D 10 9

1	NAME OF REPORTING PERSON				
2	Raging Capital Management, LLC CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (b) o				
3	SEC USE ONL	. I			
4	SOURCE OF FUNDS				
5	AF CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS '' IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e)				
6	CITIZENSHIP OR PLACE OF ORGANIZATION				
NUMBER OF SHARES	DELAWARE	7	SOLE VOTING POWER		
BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		8	- 0 - SHARED VOTING POWER		
		9	13,515,261 SOLE DISPOSITIVE POWER		
		10	- 0 - SHARED DISPOSITIVE POWE	.R	
11	AGGREGATE	AMOUNT BEN	13,515,261 EFICIALLY OWNED BY EACH	REPORTING PERSON	
12	13,515,261 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) o EXCLUDES CERTAIN SHARES				
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)				
14	27.3% TYPE OF REPORTING PERSON				
IA					
2					

CUSIP NO. 45882D 10 9

1	NAME OF REPORTING PERSON				
2	William C. Martin CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (b) o (b) o				
3	SEC USE ONLY				
4	SOURCE OF FUNDS				
5	AF CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS '' IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e)				
6	CITIZENSHIP OR PLACE OF ORGANIZATION				
NUMBER OF SHARES	USA	7	SOLE VOTING POWER		
BENEFICIALLY OWNED BY EACH		8	- 0 - SHARED VOTING POWER		
REPORTING PERSON WITH		9	13,515,261 SOLE DISPOSITIVE POWER		
		10	- 0 - SHARED DISPOSITIVE POWE	R	
11	AGGREGATE	AMOUNT BEN	13,515,261 EFICIALLY OWNED BY EACH	REPORTING PERSON	
12	13,515,261 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) o EXCLUDES CERTAIN SHARES				
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)				
14	27.3% TYPE OF REPORTING PERSON				
	НС				
3					

CUSIP NO. 45882D 10 9

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

CUSIP NO. 45882D 109

The following constitutes Amendment No. 3 to the Schedule 13D filed by the undersigned ("Amendment No. 3"). This Amendment No. 3 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 13,515,261 Shares held directly by Raging Master is approximately \$33,402,664, 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 4. Purpose of Transaction.

Item 4 is hereby amended to add the following:

Kenneth H. Traub, a Managing Partner of Raging Capital, was elected to the Board of Directors of the Issuer at its 2016 annual meeting of stockholders on May 25, 2016. Raging Capital continues to be supportive of the Issuer and commends the Issuer for strengthening the management team with the recent addition of Chris Kramer as its new President and Chief Executive Officer. Raging Capital believes the Issuer has strong capabilities and technologies in materials science and looks forward to working constructively with the Board and management team to better capitalize on these capabilities.

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 49,521,028 Shares outstanding as of August 1, 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 August 4, 2016.

As of the close of business on the date hereof, each of Raging Capital and William C. Martin may be deemed to beneficially own the 13,515,261 Shares, constituting approximately 27.3% 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 close of business on the date hereof, Kenneth H. Traub did not beneficially own any Shares of the Issuer.

5

CUSIP NO. 45882D 109

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 during the past sixty days by the Reporting Persons. All of such transactions were effected in the open market.

6

CUSIP NO. 45882D 109

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: August 11, 2016 Raging Capital Management, LLC

By: /s/ Frederick C. Wasch

Name: Frederick C. Wasch
Title: Chief Financial Officer

/s/ Frederick C. Wasch

Frederick C. Wasch as attorney-in-fact for

William C. Martin

/s/ Kenneth H. Traub Kenneth H. Traub

7

CUSIP NO. 45882D 10 9

SCHEDULE B

Transactions in the Shares of the Issuer During the Past 60 Days

Class of Security	Shares Purchased	Price (\$)	Date of Purchase
	RAGING CAPITAL MA	ASTER FUND, LTD.	
Common Stock	1,915,200	1.0000	08/09/2016
Common Stock	32,000	1.0484	08/09/2016
Common Stock	68,000	1.1098	08/09/2016
Common Stock	15,500	1.0974	08/10/2016
Common Stock	73,421	1.1867	08/10/2016
Common Stock	32,481	1.1703	08/10/2016
Common Stock	29.032	1.2431	08/11/2016