



DIVISION OF  
CORPORATION FINANCE

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

Mail Stop 3030

August 21, 2017

Christian F. Kramer  
President and Chief Executive Officer  
Intermolecular, Inc.  
3011 N. First Street  
San Jose, California 95134

**Re: Intermolecular, Inc.**  
**Form 10-K for the fiscal year ended December 31, 2016**  
**Filed March 3, 2017**  
**File No. 001-35348**

Dear Mr. Kramer:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments.

Form 10-K cover page

1. We note from your Form 10-K that the aggregate market value of your common stock held by non-affiliates was approximately \$37.8 million at June 30, 2016. We further note that you indicated you are a non-accelerated filer rather than a smaller reporting company. Please provide us with your analysis as to why you do not believe you are a smaller reporting company. Refer to Exchange Act Rule 12b-2 and Item 10(f)(2)(iii) of Regulation S-K.

Item 1. Business, page 4

2. You disclose that you address "many industries, including the semiconductor, consumer electronics, aerospace and automotive industries." Revise your future filings to clarify whether you have derived a material amount of revenues from the development of technology related to any of the markets you disclose.

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3. On page 9 you disclose that your new business model is based on “value pricing of the basic offering.” In future filings, please detail the terms of the basic offering and value pricing. Also, discuss whether your typical engagement includes a royalty of license fee.

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Please contact Tim Buchmiller at (202) 551-3635 or me at (202) 551-3412 with any questions.

Sincerely,

/s/ Tim Buchmiller for

Amanda Ravitz  
Assistant Director  
Office of Electronics and Machinery

cc: Patrick A. Pohlen, Esq.  
Latham & Watkins LLP