

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

June 25, 2013

Via E-mail

Mr. Seth H. Bagshaw Vice President, Chief Financial Officer and Treasurer MKS Instruments, Inc. 2 Tech Drive, Suite 201 Andover, Massachusetts 01810

Re: MKS Instruments, Inc.

Form 10-K for the fiscal year ended December 31, 2012

Filed February 26, 2013

File No. 000-23621

Dear Mr. Bagshaw:

We have completed our review of your filings. We remind you that our comments or changes to disclosure in response to our comments do not foreclose the Commission from taking any action with respect to the company or the filings and the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States. We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings to be certain that the filings include the information the Securities Exchange Act of 1934 and all applicable rules require.

Sincerely,

/s/ Martin James

Martin James Senior Assistant Chief Accountant