

FALL 2015 CHEMISTRY COLLOQUIA



F. Fleming Crim
University of
Wisconsin – Madison

December 4, 2015

2:45pm Reception
548 Hamilton Hall
3:30pm Seminar
112 Hamilton Hall



JACK MERSKI AWARD LECTURE

Using Vibrations to Probe and Control Chemical Reactions in Gases and Liquids

Chemical reaction inherently involves the rearrangement of the connectivity of nuclei. Thus, vibrational excitation, which moves the nuclei relative to each other, is potentially a means of controlling the course of chemical reactions. Different experiments have clearly demonstrated this behavior in gas-phase reactions, but the question remains about the same process in a liquid, where frequent interactions complicate the surroundings. New results on reactions of Br atoms with vibrationally excited molecules in gases and liquids point to the possibility of using vibrations to drive reactions in liquids as well as gases.

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