

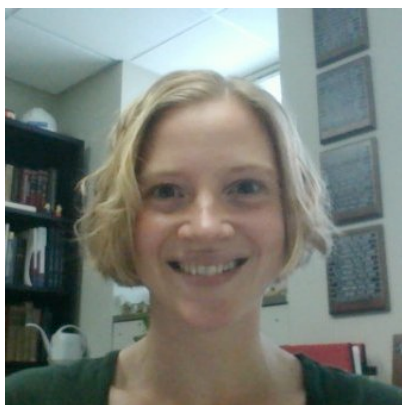
Physical Chemistry Seminar

Tuesday,
November 17, 2015

11:00 am

Room 1315
Chemistry Building

Vibrationally Driven Reactions of Bromine Atoms in Solution



Dr. Amanda Case

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We look to drive the endothermic hydrogen-abstraction reactions of Br atoms with CH_3OH and DMSO . Photolysis of Br_2 or CHBr_3 generates Br atoms in solution that quickly complex with the solvent, excitation of the overtone of the C-H stretching vibration in the two solvents provides sufficient energy to overcome the endothermicity of the reaction, and time-resolved pump-probe spectroscopy monitors the evolution of the Br-solvent complex as a marker for reaction. These UV-probe results show a reproducible IR-dependent signal indicative of vibrationally driven chemistry; however, IR-probe studies intending to monitor the formation of the HBr product have been unsuccessful.

Refreshments will be available prior to the seminar at 10:45 a.m. outside room 1315

