



Apr 14th, 2:35 PM - 3:35 PM

Photolysis of Nitrous Acid in Heptane Solvent

Megan Baranowski, '07
Illinois Wesleyan University

Timothy Rettich, Faculty Advisor
Illinois Wesleyan University

Follow this and additional works at: <https://digitalcommons.iwu.edu/jwprc>

Baranowski, '07, Megan and Rettich, Faculty Advisor, Timothy, "Photolysis of Nitrous Acid in Heptane Solvent" (2007). *John Wesley Powell Student Research Conference*. 5.
<https://digitalcommons.iwu.edu/jwprc/2007/posters2/5>

This Event is protected by copyright and/or related rights. It has been brought to you by Digital Commons @ IWU with permission from the rights-holder(s). You are free to use this material in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s) directly, unless additional rights are indicated by a Creative Commons license in the record and/ or on the work itself. This material has been accepted for inclusion by faculty at Illinois Wesleyan University. For more information, please contact digitalcommons@iwu.edu.

©Copyright is owned by the author of this document.

Poster Presentation P8

PHOTOLYSIS OF NITROUS ACID IN HEPTANE SOLVENT

Megan Baranowski and Timothy Rettich*
Chemistry Department, Illinois Wesleyan University

The reaction between volatile organic compounds (VOC) and radicals formed by solar radiation is thought to be the cause of photochemically induced air pollution. In an attempt to understand such reactions, nitrous acid dissolved in heptane was irradiated with UV radiation around 366 nm. At this wavelength, nitrous acid is known to produce hydroxyl radical, OH, a key component in air pollution. The heptane solvent, a model compound for VOC, serves as a radical scavenger. The photolysis reaction was monitored using UV-Vis spectroscopy. The resulting photolyzate was analyzed using gas chromatography, mass spectrometry and thin layer chromatography. Preliminary results indicate at least four distinct organic products, whose ongoing characterization is reported.