



Apr 17th, 1:15 PM - 2:30 PM

Nitrite Photolysis in 2-Propanol/Water Solution

Joseph B. Binder
Illinois Wesleyan University

Timothy R. Rettich, Faculty Advisor
Illinois Wesleyan University

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

Binder, Joseph B. and Rettich, Faculty Advisor, Timothy R., "Nitrite Photolysis in 2-Propanol/Water Solution" (2004). *John Wesley Powell Student Research Conference*. 5. <https://digitalcommons.iwu.edu/jwprc/2004/posters2/5>

This 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 P10

NITRITE PHOTOLYSIS IN 2-PROPANOL/WATER SOLUTION

Joseph B. Binder and Timothy R. Rettich*
Department of Chemistry, Illinois Wesleyan University

Nitrite ion has an important role in atmospheric chemistry because its photodecomposition is a source of hydroxyl radical, one of the most reactive oxidants of the atmosphere. In order to understand better the role of nitrite in the environment, free radicals produced by 366 nm irradiation of nitrite ion in 2-propanol/water solution were investigated. The 2-propanol served as a hydroxyl radical scavenger, reacting to form acetone. This product was quantified after conversion to a 2,4-DNP hydrazone, allowing both nitrite disappearance and hydroxyl radical production to be measured.