



American Chemical Society Susquehanna Valley Section

MAY 2013 NEWSLETTER

The four hundred and tenth meeting of the American Chemical Society Susquehanna Valley Section will be our Annual Awards Banquet and will be held on Wednesday, May 8, 2013. With the presentation of various local section awards, the Annual Awards Banquet recognizes both aspiring and accomplished chemistry professionals in the area who have helped to promote chemistry, the chemical professions, and the section. This year's meeting will begin at 5:30 PM in the Kehr Union Building (Ballrooms 1 & 2) on the Bloomsburg University campus. The speaker will be Dr. Will Kerber from Bucknell University.

"Structure and Reactivity of Biomimetic μ -Oxo Diiron(III) Polypyridyl Complexes "

Dr. Will Kerber
Assistant Professor of Chemistry
Bucknell University

Enzymes containing non-heme diiron active sites are an important class of biocatalysts that can accomplish the difficult task of selectively using O₂ as a terminal oxidant. Our mechanistic understanding of these complex systems has been enhanced by the study of simplified small-molecule analogs, and polypyridyl ligands in particular have been successful at mimicking histidine-rich enzyme active sites. There is a rich body of work on the structure, reactivity, and spectroscopic properties of diiron cores supported by tris(pyridylmethyl)amine (TPA) and other similar ligands. Our lab is interested in structure-function relationships in aqueous iron coordination compounds, and the diiron-TPA system was attractive for initial study because there is a wealth of structural information available, yet few studies have investigated the aqueous chemistry of these complexes. This talk will discuss the aqueous structures of μ -oxo diiron(III) TPA complexes as probed by pH and UV-vis titration experiments, and will attempt to correlate these structures with the reactivity observed during the oxidation of a model organic substrate, 1,4-dihydroxybenzene (hydroquinone).

Will Kerber received a B.S. in chemistry from Case Western Reserve University in 2000. He then went on to graduate school at the University of North Carolina at Chapel Hill where he earned his Ph.D. in 2005 studying the mechanisms of Pt(II)-catalyzed diene cycloisomerizations under the guidance of Prof. Michel Gagné. He moved to first-row transition metals as a Camille and Henry Dreyfus postdoctoral fellow at Johns Hopkins University working with Prof. David Goldberg on the synthesis and reactivity of high-valent iron oxo porphyrinoids. Will joined the faculty at Bucknell University in 2007 where he is currently an assistant professor of chemistry. His research interests encompass redox reactions of aqueous iron coordination compounds as applied to environmental systems and wastewater treatment processes. He is grateful to the ACS Petroleum Research Fund for providing funding for this work.

Dinner: Dinner will be buffet-style with a selection of entrees, side dishes, salad and dessert. Dinner will begin at 6:00 PM and the cost will be \$20, but is free for honored students (high school and college) and the high school teachers. Please RSVP David Rovnyak by email (drovnyak@bucknell.edu) or phone 570-577-3676 by 4:00 PM on Friday, May 3, 2013.

DIRECTIONS:

East of Bloomsburg: Use I-80 west to Exit 236A south.

West of Bloomsburg: Use I-80 east to Exit 236 south.

South of Bloomsburg:

From Central Pennsylvania: Take Routes 11 and 15 north to the Town of Bloomsburg. Heading north on Main Street, you'll see Carver Hall directly ahead, and you'll arrive on the western end of the campus

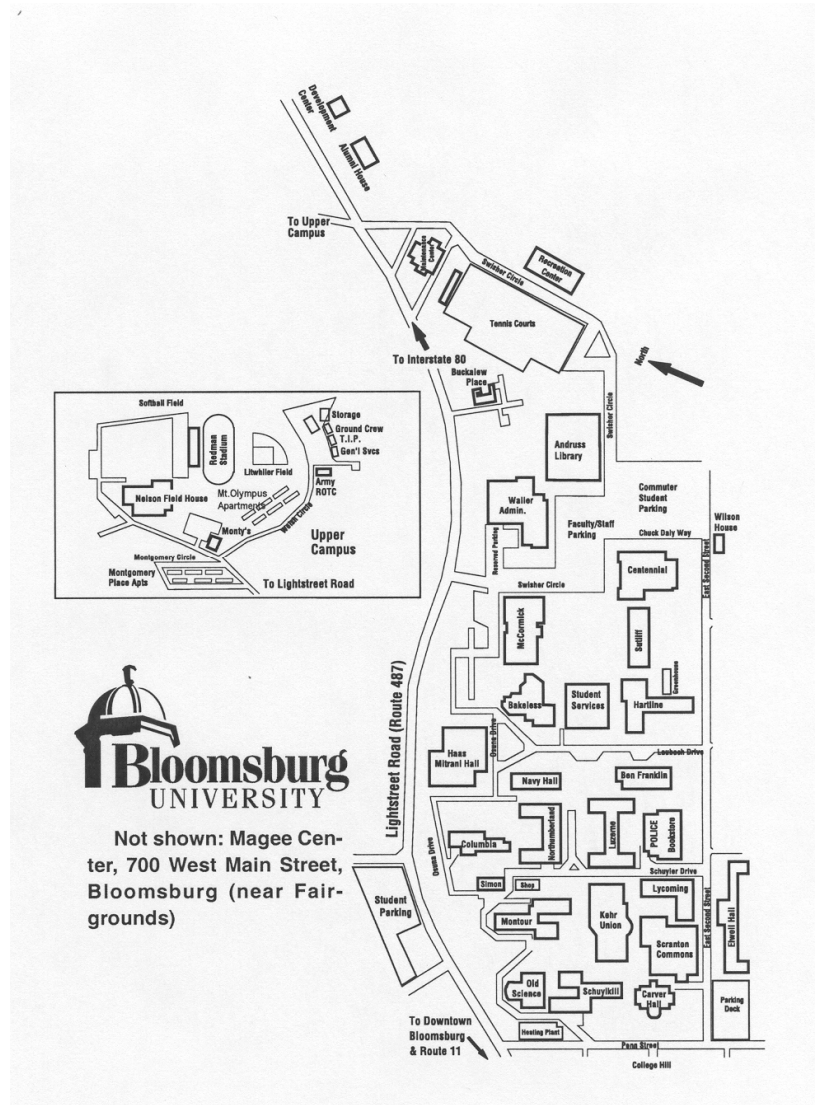
From southeast Pennsylvania: Take Northeast Extension of the Pennsylvania Turnpike (I-476) to I-80 west (Pocono Exit) to Exit 236A south.

From the Scranton/Wilkes-Barre area: take I-81 south to I-80 west to Exit 236A south.

From the Williamsport area: take I-180 south to I-80 east to Exit 236.

From Exit 236 on I-80, take Route 487 south and follow signs to campus, approximately one mile. You'll arrive on the eastern end of campus. The first sign on the left will be at Buckingham Maintenance Center; the second sign on the left will lead up a steep entry and onto campus facing Centennial Hall. Attendees can park anywhere on campus after 5:00, except in the metered parking on Second St. (meters are active until 2 AM). It is suggested that attendees may find it convenient to park in the parking garage on the corner of Penn St. and Second St.

If you park in the parking garage you will be looking at Carver Hall (large gold dome). Kehr Union is situated behind Carver and the Scranton Commons.



 Section Web Page: <http://departments.kings.edu/SusquehannaValleyACS>
