

Susquehanna Valley Section American Chemical Society

Annual Education Awards Banquet



**Kehr Union Building,
Ballrooms 1 & 2
Bloomsburg University
Bloomsburg, Pennsylvania**

8 May 2013

5:30 p.m.

PROGRAM

- I. Welcome and Introductions** *Dr. David Rovnyak*
- II. 50-Year ACS Members** *Dr. David Rovnyak*
DR. WILLIAM H. SIMPSON
DR. WILLIAM J. SNYDER
DR. JOE A. VINSON
- III. Joseph Priestley Service Award**..... *Dr. David Rovnyak*
DR. WILLIAM VANDENHEUVEL
Merck & Co., Retired
- IV. High School Teacher Award**.....*Mr. Ronald Blatchley*
MS. DALE SEELEY
Williamsport Area HS
- V. David H. Frederick Memorial Awards in High School Chemistry** *Dr. Charles Mahler*

EXAM A WINNERS

ALEX KNAUTH	Williamsport Area High School Teacher – Ms. Dale Seeley
BRYCE GILLIES	Danville High School Teacher – Ms. Erica Merriett
JORDAN MCKEATGE	Hanover Area Junior/Senior High School Teacher – Ms. Jocelyn Holodick-Reed
THOMAS BROUSE	Lewisburg Area High School Teacher – Ms. Angela Gockley
RICHARD POTTER	Scranton Preparatory School Teacher – Ms. Jane Nagurney
ERIC ONOFREY	Abington Heights High School Teacher – Ms. Bellette Greene

EXAM A RUNNERS-UP

CAROLINE EBERHART	Mifflinburg Area High School Teacher – Mr. David Evans
LOGAN STENGER	Mifflinburg Area High School Teacher – Mr. Brian Landis
GRACE CROSSLAND	Mifflinburg Area High School Teacher – Mr. Brian Landis
JULIA HINE	Selinsgrove Area High School Teacher – Ms. Tracy Hepner
CRYSTAL WELCH	Jersey Shore Area High School Teacher – Mr. William Ferguson
ALEXIS ASHBY	Jersey Shore Area High School Teacher – Mr. Alex Hunter

EXAM A RUNNERS-UP (continued)

JULIA FALCO	Hughesville High School Teacher – Mr. John Tamblin
KATHLEEN SHEDLOCK	Abington Heights High School Teacher – Ms. Carolyn Siwak
RYAN DARROUGH	Marian Catholic High School Teacher – Mr. Robert Valente

ALISON MARTIN
JOSEPH ROACH
TRISTAN GIBBONS
JON STEMME

Honesdale High School
Teacher – Ms. Michelle Tonkin
Wyoming Area Secondary Center
Teacher – Mr. Gordon Williams
MMI Preparatory School
Teacher – Ms. Laura Petro
Danville Area High School
Teacher – Ms. Deborah Slattery

EXAM B WINNERS

SCOTT LEIGHOW
TIM CSERNICA
JEFFREY CAREYVA

Lewisburg Area High School
Teacher – Ms. Angela Gockley
Lewisburg Area High School
Teacher – Ms. Angela Gockley
MMI Preparatory School
Teacher – Ms. Laura Petro

VI. Chemistry Olympiad Competitors *Dr. Deanne Garver*

NABA MUKHTAR
PAUL CHICHURA
RACHEL EVANS
RACHEL FRITZ
NICOLE KUCHTA

Danville High School
Teacher – Ms. Deb Slattery
Scranton Preparatory School
Teacher – Ms. Jane Nagurney
Scranton Preparatory School
Teacher – Ms. Jane Nagurney
Honesdale High School
Teacher – Ms. Michelle Tonkin
Honesdale High School
Teacher – Ms. Michelle Tonkin

VII. College Award Winners *Dr. Terese Wignot*

PATRICK MARTINO
SEAN PIDGEON
MICHAEL COCO
KEISHA NEIDRICH
CHRISTINA MARVIN
KATURAH KLEIN
ALLYSON MARIANELLI

Misericordia University
Wilkes University
University of Scranton
Susquehanna University
King's College
Bucknell University
Lycoming College

VIII. "Structure and reactivity of biomimetic μ -oxo diiron (III) polypyridyl complexes "

Dr. Will Kerber, *Bucknell University*

Enzymes containing non-heme diiron active sites are an important class of biocatalysts that can accomplish the difficult task of selectively using O_2 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.

2013 ACS SUSQUEHANNA VALLEY SECTION OFFICERS

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The American Chemical Society is a nonprofit scientific and educational association of professional chemists and chemical engineers. Although the Society is primarily an American organization, virtually every nation is represented among its over 160,000 members.

The programs of the Society include meetings, publications, education, awards, and public service activities, including National Chemistry Week. 1500 ACS meetings are held each year at the local, regional, national, and divisional levels. Over twenty ACS journals are the leading resources in the chemical field. Educational activities include services to high school and college chemistry students and continuing education programs for its members. The Society presents numerous awards for outstanding achievement in various fields of chemistry through national, regional, divisional, and local channels. Fellowships and research grants for basic research are administered by the society.

The Susquehanna Valley Section of the ACS includes members from eight counties in central to northeastern Pennsylvania.