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 MCKEAIGE  Hanover Area Junior/Senior High School
      Teacher – Ms. Jocelyn Holodick-Reed
   THOMAS BROUSSE  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 STENGGER  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 SHELLOCK  Abington Heights High School
      Teacher – Ms. Carolyn Siwak
   RYAN DARROUGH  Marian Catholic High School
      Teacher – Mr. Robert Valente
ALISON MARTIN  
Teacher – Ms. Michelle Tonkin
Honesdale High School

JOSEPH ROACH  
Teacher – Mr. Gordon Williams
Wyoming Area Secondary Center

TRISTAN GIBBONS  
Teacher – Ms. Laura Petro
MMI Preparatory School

JON STEMM  
Teacher – Ms. Deborah Slattery
Danville Area High School

EXAM B WINNERS

SCOTT LEIGHOW  
Lewisburg Area High School
Teacher – Ms. Angela Gockley

TIM CSERNICA  
Lewisburg Area High School
Teacher – Ms. Angela Gockley

JEFFREY CAREYVA  
MMI Preparatory School
Teacher – Ms. Laura Petro

VI. Chemistry Olympiad Competitors .......... Dr. Deanne Garver

NABA MUKHTAR  
Danville High School
Teacher – Ms. Deb Slattery

PAUL CHICHURA  
Scranton Preparatory School
Teacher – Ms. Jane Nagurney

RACHEL EVANS  
Scranton Preparatory School
Teacher – Ms. Jane Nagurney

RACHEL FRITZ  
Honesdale High School
Teacher – Ms. Michelle Tonkin

NICOLE KUCHTA  
Honesdale High School
Teacher – Ms. Michelle Tonkin

VII. College Award Winners ....................... Dr. Terese Wignot

PATRICK MARTINO  
Misericordia University

SEAN PIDGEON  
Wilkes University

MICHAEL COCO  
University of Scranton

KEISHA NEIDRICH  
Susquehanna University

CHRISTINA MARVIN  
King’s College

KATURAH KLEIN  
Bucknell University

ALLYSON MARIANELLI  
Lycoming College
VIII. “Structure and reactivity of biomimetic μ-oxo diiron (III) polypyridyil 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 O₂ as a terminal oxidant. Our mechanistic understanding of these complex systems has been enhanced by the study of simplified small-molecule analogs, and polypyridyil 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 cyclosomerizations 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.

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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.