



American Chemical Society Susquehanna Valley Section

APRIL 2015 NEWSLETTER

The four hundred and twenty-third meeting of the American Chemical Society Susquehanna Valley Section will be held on Wednesday, April 8, 2015 in the McGowan Room, third floor of the Bevevino Library, on the campus of Misericordia University in Dallas, PA. The meeting will begin at 7:00 PM and will be preceded by dinner at 5:15 PM at Leggio's Restaurant, Dallas (the former location of Pickett's Charge). The speaker will be Nicola Edwards, Ph.D., of Misericordia University.

“Functionalized Calixarenes as Anion Sensors”

Dr. Nicola Edwards
Department of Chemistry and Biochemistry
Misericordia University
Dallas, PA

There is continued interest in the development of anion sensors due to the pivotal roles that anions play in many chemical, biological and medicinal processes. Calixarenes have proven to be versatile scaffolds for the development of anion sensors due to the ease of functionalization at their lower or upper rims with linkers decorated with recognition motifs for anions, such as urea, thiourea and amide moieties. These modified calixarenes form a pre-organized core capable of improving the binding and selectivity of anions. This presentation will describe the synthesis, anion binding studies and sensing applications of functionalized calixarenes. Calix[4]arenes which contain pyridine and terpyridine moieties appended to the lower rim of calix[4]arene, have been synthesized in four steps. The recognition properties of these calixarenes towards different anions were evaluated using ^1H NMR, UV-Vis, fluorescence and computational studies. Finally, the use of these calixarenes as sensors in an array-based format will be discussed.

Dr. Nicola Edwards is an Assistant Professor of Chemistry and Biochemistry at Misericordia University. She is primarily interested in the development of sensors for anions, cations and endocrine-disrupting compounds that can be used in visual detection kits. Dr. Edwards received her BA in chemistry from Rice University and her Ph.D. in chemistry from the University of California, Los Angeles, working under the guidance of Professors Houk and Abu-Omar pursuing research in supramolecular chemistry and inorganic chemistry. She was a postdoctoral fellow at the University of Texas at Austin with Professor Anslyn where she developed sensors for saccharides, peptides and explosive compounds. She was a visiting assistant professor at Rollins College in 2008, moved to Penn State Worthington Scranton in 2009, and joined Misericordia in 2014.

DINNER:

Dinner will be at Leggio's Restaurant, 64 E. Center Hill Road, Dallas at 5:15 PM. Ordering will be from the menu and RSVP should be to Anna Fedor at 570-674-6769 or afedor@misericordia.edu by Monday, April 6, 2015. Directions can be found on their web site: <http://leggios315.com/index.php/directions>

DIRECTIONS TO MISERICORDIA UNIVERSITY:**From Route 80 East**

Take exit 260 to Route 81 North. Take exit 170B Wilkes-Barre. Exit ramp merges with Route 309 North. Stay on 309 for 9 miles into Dallas. In Dallas, continue on Route 309 North. Where Route 309 veers toward the right (just past the Dallas Shopping Center), continue straight on Route 415 for 1/4 mile to the second light (stay in right lane). At this light, bear to the right onto Lake Street. Follow Lake Street for 1/2 mile, past Center Hill Road. The College entrance arch is on your right. Campus map can be found at <http://www.misericordia.edu/page.cfm?p=515>

SECTION NEWS:

Dr. George Shields, Dean of the College of Arts and Sciences at our own Bucknell University, has been awarded the 2015 ACS Award for Research at an Undergraduate Institution. The award honors a chemistry faculty member whose research in an undergraduate setting has achieved wide recognition and contributed significantly to chemistry and to the professional development of undergraduate students. More details can be found at <http://www.bucknell.edu/news-and-media/2014/august/shields-to-receive-national-award-for-research-at-an-undergraduate-institution.html>. The ACS Susquehanna Valley Section congratulates Dr. Shields.

2015 Local Chemistry High School Exams will be held Saturday April 11. The registration deadline is March 30 at midnight. More information can be found at http://departments.kings.edu/SusquehannaValleyACS/services/HS_exams.html

2015 Local Chemistry Olympiad will be held Saturday, April 18 at Marywood University. Nominations for student participants (up to 2 students per school) are due by Tuesday, March 31. More information can be found at <http://departments.kings.edu/SusquehannaValleyACS/services/Olympiad.html>

There is a call for nominations for four MARM regional awards (deadline April 3):

- ACS Division of Chemical Education Middle Atlantic Regional Award for Excellence in High School Teaching
- E. Emmet Reid Award in Chemistry Teaching at Small Colleges in the ACS Mid-Atlantic Region
- Stanley C. Israel Award for Advancing Diversity in the Chemical Sciences
- E. Ann Nalley Award for Volunteer Service in the American Chemical Society

Email Dr. Sharon Haynie at sharon.L.haynie@dupont.com for more information.

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

Please send any comments about the monthly newsletter to Ron Supkowski, Section Secretary
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