



# THE OCTAGON

## 867<sup>th</sup> LVACS Meeting:

*Thursday, September 29, 2016  
Career and Networking Event*



**Buca di Beppo**

*Reading, PA*

### MEETING DETAILS:

**Date:** Thursday September 29, 2016

**Location:** 2745 Paper Mill Rd, Wyomissing, PA 19610

**Social:** 5:30 PM - Registration and Happy Hour

**Dinner:** 6:00 PM

**Program:** Guest Recruiters, Speakers and Dessert

**Networking and Drinks:** 7:15 PM

The evening will feature speakers and recruiters from local and regional chemical and scientific companies, introducing their company as well as any employment opportunities available ranging from internships through positions for experienced professionals.

**RSVP:** Penn State Berks Chapter of the American Chemical Society, [berkschemsoc@psu.edu](mailto:berkschemsoc@psu.edu) by September 22, 2016

**Directions:** <http://www.bucadibeppo.com/restaurants/pa/reading/>



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### ON TAP

The 868th meeting of the LVACS will be held on October 20 at Albright College, featuring speaker Dr. Mary Watson



***Committee on Minority Affairs presents:***

***Networking and Social Event***

A great opportunity to meet professionals in the region, share your experiences, extend your business contacts and gain information that can be useful in your present or future endeavors.

**Location:** Molly's Irish Grille & Sports Pub, East 4th Street & New Street, Bethlehem PA

**Date and Time:** Thursday, September 15, 2016 from 6:00 – 8:00 pm

**Registration:** <https://www.eventbrite.com/e/networking-and-social-event-tickets-27288760417>

**Cost:** \$5

**Menu:** Hors d'oeuvres and Cash Bar

**Parking Information:** Paid parking meters, <http://bethpark.org/>

**For Information Contact:** [lvacscma@gmail.com](mailto:lvacscma@gmail.com)

**Sponsors:** Lehigh University Center for Advanced Materials and Lehigh Emerging Technologies Network



***Request for Volunteers - Sept. 11th, 2016***

On September 11th, the Da Vinci Science Center is holding a Festival of Art, Science, and Technology from 11am-6pm at the PPL Center in Allentown. They have invited exhibitors to offer non-stop family-friendly experiments, and interactive activities.

The section is sponsoring a table where we will be offering activities around green chemistry based on a grant our section was awarded and would like volunteers to help man the table. If you would be interested in helping please contact Jeanne Berk ([jrberk@cedarcrest.edu](mailto:jrberk@cedarcrest.edu)) for more details.

The festival's purpose is to engage people from all socioeconomic backgrounds in inspiring and entertaining experiences with art, science, and technology and raise awareness of careers in the STEM fields of science, technology, engineering, and mathematics.



***Leadership Development Course: Communication Strategies***

**Date:** Saturday, October 15, 2016, 9:00 am – 1:00 pm

**Venue:** Lehigh University, UC Center, Room 303, 29 Trembley Avenue, Bethlehem PA

**Cost:** Free registration for the first ACS 20 members, \$150 per person thereafter

**RSVP:** Dr. Celia Williams (lvacscma@gmail.com) by Sept. 15, 2016

**Facilitator:** Dr. Frankie Wood-Black

**Frankie Wood-Black, Ph.D., M.B.A., R.E.M., Instructor Northern Oklahoma College, and Principal of Sophic Pursuits, Inc.**

Dr. Wood-Black has been in the petroleum and chemical industry for over 25 years with work experience in technical management; laboratory operations; environmental science and compliance; finance; and professional development. Dr. Wood-Black's work experience has primarily been focused around refining and downstream operations. Prior to joining NOC and starting Sophic Pursuits, she served as an Environmental Air Professional for a full service consulting firm and the Director of Consent Decree Compliance, which focused on environmental air compliance for refining operations, for one of the largest U.S. Oil companies.

In addition to her refining experience, she has worked on a number of remediation projects focused on site reuse. Due to her research background, she has a fundamental understanding of monitoring techniques as well as technological solutions to specific issues in the field. Dr. Wood-Black is a contributing editor to the Journal of Chemical Health and Safety, has a number of technical publications, authored *Staying Safe while Conducting Hands-On Science*, *Discovering Chemistry – Semester 1*, *A Hands-On Investigation*, co-authored *Emergency Preparedness Planning – A primer for Chemists*, and is a routine presenter at the American Chemical Society.

***The Organic Scholarship Winner:  
Vicky Ngo of Cedar Crest College***

The Organic Scholarship Committee would like to announce that the overall winner of the scholarship is Victoria Ngo of Cedarcrest College. The award for best essay also goes to Ms. Ngo. We would like to congratulate all the participants Ms. McGee and Ms. Ogozaly of Cedarcrest College, and Ms. Signh of East Stroudsburg University for making an extra effort to learn and excel outside of the classroom, beyond their normal course requirements.



### *ChemLuminary Awarded to LVACS Section!*

At the 252nd National Meeting of the ACS in Philadelphia, the Lehigh Valley Section was awarded a ChemLuminary Award for the "**Best New Public Relations Program of a Local Section**" for our event called Lehigh Valley's Summer Science Spectacular.

This event brought together ACS members, colleagues, and science friends to provide a fun-filled day of outreach for families at a Reading Fighting Phils baseball game. More than 400 kindergarten through 12th-grade students, their families, and baseball fans experienced many fun and



### *Interested in contributing to LVACS in a leadership role?*

Elections for officers are right around the corner in November. Positions available include Chair-Elect, Secretary, Treasurer and Alternate Councilor. Inquire with any LVACS officer listed on the final page of this newsletter.



*The 2017 Mid Atlantic Regional Meeting will be taking place  
June 4-6, 2017,*

***Jointly hosted by the Susquehanna Valley and Lehigh Valley Local Sections, MARM is making a big return to Hershey, PA, June 4-6 in 2017.***

As you know, chairing a session is a proven networking opportunity, and an outstanding service to the profession to draw attention to latest advances in chemistry.

I am delighted to share that we have a terrific leadership team, and participating in MARM 2017 will be rewarding for all.

I and a committed group of division chairs are working to help you plan sessions. To propose a session please contact the chair of the division that is the closest fit.

Physical/Biophysical/Computational: Prof. Karen Castle [kcastle@bucknell.edu](mailto:kcastle@bucknell.edu)

Inorganic/Catalysis/Energy: Prof. Chip Natarro [nataroc@lafayette.edu](mailto:nataroc@lafayette.edu)

Organic/Natural Products/Med Chem: Prof. David Rovnyak [drovnyak@bucknell.edu](mailto:drovnyak@bucknell.edu)

Chemical Education: Prof. Chris Hamann [chamann@albright.edu](mailto:chamann@albright.edu)

Analytical/BioAnalyt: Prof. Kate Stumpo [katherine.stumpo@scranton.edu](mailto:katherine.stumpo@scranton.edu)

Pharma/Industry: Prof. Ben Blass [tud12939@temple.edu](mailto:tud12939@temple.edu)

Biochemistry/StructBio/ChemBio: Prof. Wade Johnson [johnsonw@susqu.edu](mailto:johnsonw@susqu.edu)

Polymer/Materials/Nano: Prof. David Rovnyak [drovnyak@bucknell.edu](mailto:drovnyak@bucknell.edu)

Environmental/Green/GeoChem: Prof. Lindsey Welch [Lindsey.Welch@cedarcrest.edu](mailto:Lindsey.Welch@cedarcrest.edu)

MolecVue: Prof. James Foresman [jforesma@ycp.edu](mailto:jforesma@ycp.edu)

History/Law/Safety/Other: Prof. David Rovnyak [drovnyak@bucknell.edu](mailto:drovnyak@bucknell.edu)

**David Rovnyak , Program Chair, MARM 2017**

Professor of Chemistry Bucknell University

Lewisburg, Pennsylvania 17837

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## *869<sup>th</sup> LVACS Meeting*

### *Lehigh University*

**Date:** *Tuesday, November 15th, 2016*

**Location:** University Center, Room 303, 29 Trembley Avenue, Bethlehem, PA 18015

**Agenda:**

5:30 pm - 6:00 pm: registration and social hour

6:00 pm - 7:00 pm dinner (Little Italian Buffet, Lehigh Catering Service)

7:00 pm - 8:00 pm talk (speaker: TBD)

8:00 pm - 8:30 pm business session

**Buffet Menu:** Classic Caesar Salad, Pan Roasted Chicken with Wild Mushroom Marsala Sauce, Lasagna with Bolognese, Ricotta and Basil, Roasted Rosemary Red Bliss Potatoes, String Beans with Garlic and Oil, Assorted Rolls with Butter, Assorted Italian Cookies to Include Assorted Biscotti, Nana Cookies and almond Butter Cookies, Assorted Regular & Diet Pepsi Products

RSVP and registration: Jennifer Cummings ([jlc415@lehigh.edu](mailto:jlc415@lehigh.edu))

Driving Directions and Parking: <http://www1.lehigh.edu/about/maps/drivingdirections/university-center>

**Talk title:** *Cocrystals of salts with "soft" organic molecules as a new class of solid electrolytes for safer batteries.*

**Speaker:** Michael Zdilla

**Abstract:** An increase in demand for high-power and high-capacity lithium ion batteries has led to steadily increasing demand for these devices. The maximum power density of a battery is highly dependent upon the electrolyte separator between the battery electrodes, and for the highest power density batteries, the current norm is the use of organic liquid electrolytes. While these electrolytes give good device properties, they permit dendrite formation which can short the battery, leading to heat, fires, and explosions resulting from ignition of the flammable liquid electrolyte. Therefore a search for less flammable, solid alternatives is a major goal of the industry. While most efforts have centered around polymer and ceramic solid electrolytes, our work on the generation of cocrystalline molecular solid electrolytes will be presented. The selection of "soft" (charge diffuse, polarizable) molecules as matrix molecules for ion conduction results in conductivity properties generally superior to polymer electrolytes, and mechanical properties superior to brittle ceramic electrolytes. Several molecular-salt cocrystal systems will be presented, and their structures, thermal and mechanical properties, and conductivities will be discussed.



## 2016 LVACS OFFICERS

<p><b>Chair:</b> <b>Kelley Caflin</b> Picatinny Arsenal <a href="mailto:caflinacs@yahoo.com">caflinacs@yahoo.com</a></p>	<p><b>Treasurer:</b> <b>Sherri Young</b> Muhlenberg College 2400 Chew St. Allentown, PA 18104 484-664-3271 <a href="mailto:young@muhlenberg.edu">young@muhlenberg.edu</a></p>	<p><b>Secretary:</b> <b>Lindsey Welch</b> Dept. of Chemical and Physical Sciences Cedar Crest College Allentown, PA 18104 610-606-4666 ext 3615 <a href="mailto:lawelch@cedarcrest.edu">lawelch@cedarcrest.edu</a></p>
<p><b>Immediate Past Chair:</b> <b>Greglynn Gibbs</b> Penn State Berks 204 Luerssen Building Tulpehocken Road, P.O. Box 7009, Reading, PA 19610 610-396-6363 <a href="mailto:gdw104@psu.edu">gdw104@psu.edu</a></p>	<p><b>Chair Elect:</b> <b>Celia Williams</b> Avantor Performance Materials, Inc. 1904 J.T. Baker Way Phillipsburg, NJ 08865 <a href="mailto:lvacscma@gmail.com">lvacscma@gmail.com</a></p>	
<p><b>Councilor:</b> <b>Jeanne Berk</b> Dept. of Chemical and Physical Sciences Cedar Crest College Allentown, PA 18104 610-606-4666 ext 3507 <a href="mailto:jrberk@cedarcrest.edu">jrberk@cedarcrest.edu</a></p>	<p><b>Councilor:</b> <b>Lorena Tribe</b> 218 Luerssen Bldg Penn State Berks Tupelhocken Rd PO Box 7009 Reading PA 19610 <a href="mailto:lut1@psu.edu">lut1@psu.edu</a></p>	<p><b>Octagon Editor &amp; Webmaster:</b> T. Michelle Jones-Wilson East Stroudsburg University East Stroudsburg, PA 18301 <a href="mailto:mjwilson@esu.edu">mjwilson@esu.edu</a></p>