

## American Chemical Society Susquehanna Valley Section

## **MAY 2023 NEWSLETTER**

The four hundred and sixty eighth meeting of the American Chemical Society Susquehanna Valley Section will be our Annual Awards Banquet and will be held on Tuesday, May 2, 2023. With the presentation of various local section awards, the Annual Awards Banquet recognizes both aspiring and accomplished local chemistry professionals who have helped to promote chemistry, the chemical professions, and the section. This year's ceremony will begin at 5:30 PM at the Pine Barn Inn in Danville, PA. The speaker will be Dr. Matthew Polinski from Commonwealth University at Bloomsburg.

## "Squaring Up the f-Block"

Dr. Matthew Polinski
Associate Professor of Inorganic Chemistry
Department of Biochemistry, Chemistry, Engineering and Physics
Commonwealth University at Bloomsburg
Bloomsburg, PA

The *f*-elements, comprised of the lanthanides and actinides, represent approximately 25% of the Periodic Table and are some of the least studied and understood elements. Their technological importance, however, cannot be understated as they find uses in a variety of modern technologies, such as optical, magnetic, electronic, and nuclear energy. As the lanthanides and the transplutonium elements are nearly identical in size and all share a preference for the trivalent oxidation state, it has been standard practice to use the lanthanides as nonradioactive surrogates for the later actinides in order to gain preliminary understanding of their physical and chemical properties. However, within in the last decade, a handful of systems that display nonparallel chemistry between these two series have emerged, leading to the idea that the use of lanthanide surrogates should be met with skepticism and not be a substitute for studying the transplutonium elements. One system providing nonparallel chemistry is the trivalent *f*-element squarate series. These new families of trivalent *f*-element squarates, including all of their similarities and differences, will be discussed.

#### **BIOGRAPHY OF DR. MATTHEW POLINSKI:**

Dr. Matthew Polinski earned his B.A. from Washington and Jefferson College (2010) and his Ph.D. in Chemistry from the University of Notre Dame (2013) under the direction of Dr. Thomas Albrecht-Schonzart. His dissertation is titled "Syntheses, Characterization, and Fundamental Studies of Novel Trivalent Lanthanide and Actinide Borates". After his graduate studies, he was a post-doctoral researcher at Florida State University in the lab of Dr. Albert Stiegman studying the mechanism of the Phillips polymerization catalyst.

In 2014, he joined the Department of Biochemistry, Chemistry, Engineering, and Physics at Commonwealth University of Pennsylvania – Bloomsburg where he is currently a tenured Associate Professor and teaches General Chemistry, Inorganic Chemistry, and Advanced Inorganic Chemistry.

Dr. Polinski has won a variety of awards for both teaching and research. Nationally, he was awarded the American Chemical Society's Nobel Laureate Signature Award in 2016. He has been named the inaugural Aronstam Family Research Fellow (2021), awarded the Dean's Faculty Recognition Award for Research (2019), the Provost's Award for Excellence in Research/Scholarly Activity (2019), and an Influential Professor four times as selected by BU student athletes. Dr. Polinski is an expert in solid-state chemistry, *f*-element chemistry, structural chemistry, and materials science, with an emphasis on X-ray crystallography.

**DINNER:** The Annual Awards Banquet of the local section will be held on Tuesday, May 2, 2022 at 5:30 pm at the <u>Pine Barn Inn</u> in Danville, PA. Dinner is a buffet featuring Tuscan grilled chicken. All SVS members are invited to attend. Cost of the dinner is \$10 per person, paid at the door, cash or check (payable to Susquehanna Valley Section of the ACS). Please do not mail checks in advance. Receipts will be provided upon request. Please note that individuals who are receiving an award at the banquet will not be charged for dinner. For more information contact Dr. Daniel McCurry at 570-389-5320 or dmccurry@commonwealthu.edu.

#### **DIRECTIONS TO THE PINE BARN INN:**

Address: One Pine Barn Place, Danville, PA 17821

**From I-80:** 

Take the Danville exit 224 to PA-54 East which is Continental Blvd. In three miles turn left onto Bloom Street. Stay on Bloom Street; the Pine Barn Inn will be on your left in about half a mile. See the website for more details: pinebarninn.com

#### **SECTION NEWS:**

LOCAL STEM COMPETITIONS:



A list of all STEM competitions for high school students is posted on our <u>website</u>. If you have any questions about the contests or have suggestions for others, please contact either the person indicated on the site or the section webmaster, Ron Supkowski at <u>ronaldsupkowski@kings.edu</u> or 570-208-5900 x5733

#### **MARM 2023**



The 51<sup>st</sup> Mid Atlantic Regional Meeting (MARM) will be held Friday and Saturday, June 9-10, 2023. The meeting is hosted by the New York Local Section of the American Chemical Society. The technical sessions will be Friday at the CUNY Graduate Center in Midtown Manhattan and high school and Chemagination will be held on Saturday at St. John's University in Queens. For more information, see their website.

## BUCKNELL UNIVERSITY CHEMISTRY CAMP:

Bucknell University's Chemistry Department is hosting a hands-on and interactive chemistry day camp June 15-16, 2023. The camp is open to high school students who are rising sophomores and older. The camp includes:

- An overview of chemistry and the interesting ways it can be used
- Interaction with Bucknell chemistry students, faculty, and staff
- Hands-on chemistry demonstrations
- · Lunch and snacks included
- A culminating dinner where campers demonstrate what they learned The cost of the camp is \$250 per camper, and there is some financial aid available for students who may need financial support. If you have additional questions please contact Kaitlyn Connelly (kjc017@bucknell.edu). Apply with this link.



#### OPEN POSITIONS IN THE LOCAL SECTION:

Do you want to use your talents to help other chemists in the Susquehanna Valley section? Listed below are examples of positions that need to be filled by willing individuals along with websites that give organizing ideas:

- SVS Chair-Elect
  - This two-year position is the usual office taken on by local chemists who want to begin to become more involved in the local section.
- Chemistry Olympiad Chair
  - Administer Local Chemistry Olympiad Competitions in coordination with the National Chemistry Olympiad.
- WCC (Woman Chemists Committee) Chair
  - Help attract, retain, develop, promote, and advocate for women to positively impact diversity, equity and inclusion in the Society and the profession
- Project SEED (<u>Summer Experiences for the Economically Disadvantaged</u>) Coordinator
   Coordinators are responsible for establishing programs, identifying mentors, recruiting
   students, fundraising, and organizing activities such as field trips
- CH&S (Chemical Health and Safety) Committee Chair
  - Help provide authoritative technical resources and mentorship in chemical health and safety for all

• SCC (Senior Chemists Committee) Chair

Help improve communication among senior chemists, increase the number of senior chemists' groups and the level of their engagement within local sections, and encourage the involvement of senior chemists in programs focused on K-12 education, undergraduate networking, and mentoring

CCEW (Chemists Celebrate Earth Week) Coordinator

Help promote the positive role that chemistry plays in the protecting our planet (recyclable plastics, cleaner-burning fuels, phosphate-free detergents, environmental monitoring, and green chemistry initiatives).

If you are interested, contact the section Chair (Allison Saunders, <u>asaunders@lycoming.edu</u>), Secretary (Ronald Supkowski, <u>ronaldsupkowski@kings.edu</u>) or any member of the Susquehanna Valley Section leadership team (<u>executive committee</u>, <u>committee</u> chairs, <u>liaisons</u>).

## **NATIONAL ACS NEWS:**

#### COVID-19

ACS is committed to helping combat the global COVID-19 pandemic with initiatives and free resources. Learn More at their website <a href="acs.org/content/acs/en/covid-19">acs.org/content/acs/en/covid-19</a>

#### ACS LEGISLATIVE ACTION NETWORK:

Legislation that may impact the chemical enterprise comes before Congress on a regular basis, and the ACS is committed to keeping its members informed and encouraging them to weigh in on high-priority issues. To see the position of the ACS on many legislative issues visit the ACS LAN website: <a href="https://www.acs.org/content/acs/en/policy.html">https://www.acs.org/content/acs/en/policy.html</a>

To find out how to become more active in ACS advocacy activities, see the website: <a href="https://www.acs.org/content/acs/en/policy/memberadvocacy/advocacy-tools.html">https://www.acs.org/content/acs/en/policy/memberadvocacy/advocacy-tools.html</a>

To join ACS' grassroots legislative advocacy network, ACT4CHEMISTRY, which will allow you to stay up to date on policy issues and contact legislators on behalf of chemistry and chemists, go to their website, follow the Act4Chemistry Twitter account, or email advocacy@acs.org.

Act4Chemistry Advocacy Issues. To take action go to the website acs.org/content/acs/en/policy/memberadvocacy/issues.html#/takeaction

## Ask Congress to support funding of the CHIPS and Science Act

Last year Congress passed the CHIPS and Science Act into law, one of the largest research and innovation bills of the decade. Now, Congress must act to ensure the National Science Foundation, the Department of Energy Office of Science, and the National Institute of Standards and Technology have the funding necessary to support the ambitious research agenda outlined in the law in the upcoming fiscal year 2024 appropriations process. We are asking you to highlight the importance of adequately funding research priorities already outlined by Congress in the CHIPS and Science Act to your Representative and Senators.

## Ask Congress to support climate change legislation

With the growing climate crisis, the American Chemical Society recently endorsed a package of legislation to help address climate change, both to reduce greenhouse gas emissions, improve the sustainability of our energy and transportation sectors, and adapt to a changing world. ACS believes these steps are only part of addressing our changing climate, but it is a step towards leaving a better planet to our children and grandchildren. We ask you to raise these important issues to your Representative and Senators as they consider their legislative activities and priorities.

# Ask the Senate to confirm science nominees for key positions & consider a chemist for the Chemical Safety Board

We In 2021, the Biden Administration nominated three chemists for three important roles at the Department of Energy (DOE) and the Department of Commerce National Institute of Standards and Technology (NIST). Dr. Geri Richmond and Dr. Laurie Locascio have been confirmed as DOE's Under Secretary for Science and Energy and the Under Secretary of Commerce for Standards and Technology, respectively. Dr. Asmeret Berhe has been nominated as the Director of the DOE Office of Science. ACS asks the Senate to vote on her nomination as quickly as possible.

ACS is also asking Congress to encourage the nomination of someone with experience and a background in chemistry for one of the two remaining vacancies on the U.S. Chemical Safety and Hazard Investigation Board (CSB).

## **Support the Chemical Safety Board**

The CSB is an independent federal agency that saves companies, universities, and local communities billions of dollars and countless lives by helping them prevent catastrophic incidents. Despite its great value, the administration has called for \$9.4 million for FY 2019 to be allocated to CSB, specifically for its elimination. Join us in asking appropriators and other members of Congress for their continued support of the CSB and its mission to protect workers and the public.

#### **Keep Science Funding Strong**

Congress and the White House are working to complete the appropriations process for fiscal year 2021. Join us in asking appropriators for a strong and predictable boost in federal funding for scientific research.

#### **Congressional Chemistry Caucus**

The Caucus' mission is to educate Members of Congress, their staff, and the public on the benefits of chemistry in today's society and its economic impact on our country. If you do not see your Representative or Senators represented in the Chemistry Caucus ask them to join.

#### JOIN THE ACS:

If you know of anyone who would benefit from being a member of the American Chemical Society, please direct them to the membership website:

https://www.acs.org/content/acs/en/membership.html

## **NATIONAL MEETINGS:**

## Fall 2023 ACS National Meeting

The fall 2023 national meeting, "Harnessing the Power of Data" will a hybrid event. The meeting will be held August 13-17, and the in-person event will take place in San Francisco, CA. See the <u>website</u> for more information.





## Green Chemistry & Engineering Conference

The 2023 meeting, "Closing the loop: Chemistry for a sustainable future" will a hybrid event. The meeting will be held June 13-15, and the in-person event will take place in Long Beach, CA. Early registration closes April 30. See the <u>website</u> for more information.

Susquehanna Valley Section Web Page: <a href="http://departments.kings.edu/SusquehannaValleyACS">http://departments.kings.edu/SusquehannaValleyACS</a>
Please send any comments about the monthly newsletter to Ron Supkowski, Section Secretary King's College 131 N River St Wilkes-Barre PA 18711

<a href="mailto:ronaldsupkowski@kings.edu">ronaldsupkowski@kings.edu</a>