

American Chemical Society Susquehanna Valley Section

SEPTEMBER 2023 NEWSLETTER

The four hundred and sixty ninth meeting of the American Chemical Society Susquehanna Valley Section will be held on Wednesday, September 20, 2023 at 7:00pm in the Academic West building, room 108, on the Bucknell University campus in Lewisburg, PA. The speaker will be Hasan Arslan, PhD., Assistant Professor of Chemistry at Bucknell University. The talk will be preceded by a reception and dinner at 6:00pm in Academic West room 111.

"Switchable host-guest interactions of cationic macrocycles"

Dr. Hasan Arslan Assistant Professor of Chemistry Bucknell University Lewisburg, PA



Intermolecular forces and shape complementarity control binding interactions found in molecular systems such as enzyme-substrate complexes. Taking inspiration from nature, organic chemists have built a plethora of host-guest systems, and used them for various applications, from highly selective and sensitive chemical sensors to molecular machines that can perform unidirectional motion. In this talk, I will discuss two different projects involving polycationic molecular hosts, focusing on the modulation of host-guest interactions using different inputs. 1) Redox and acid–base chemistry are well-established stimuli to switch supramolecular systems. I will introduce a cationic macrocycle that can be switched by either of these two pathways, resulting in clear changes in affinity towards different polycyclic aromatic compounds (PAC). 2) Host-guest binding can be influenced by the presence of competitor binders. I will discuss how we are using this competitive binding for growing diffraction quality single crystals of highly insoluble PACs. Throughout this talk, I will explain how we use analytical tools such as NMR spectroscopy and X-ray crystallography to elucidate these complex systems.

BIOGRAPHY OF DR. ARSLAN:

Dr. Hasan Arslan received a B.S. degree in chemistry from Middle East Technical University (Ankara, Türkiye) in 2009 before working with Dr. William R. Dichtel at Cornell University, receiving his Ph.D. in chemistry in 2014. After three years as a postdoctoral fellow at Northwestern University with Sir Fraser Stoddart, he accepted a faculty appointment at Bucknell University in 2017, where he is currently an Assistant Professor of Chemistry. His research interests include host-guest complexation, crystal growth, and solvatochromic dyes.

DINNER:

The lecture will be preceded by a reception and dinner at 6:00pm in the Academic West building, room 111. Dinner will be buffet style, including a vegetarian option and dessert. Those wishing to reserve a spot for dinner should contact Charlie Guttendorf by email (charlie.guttendorf@bucknell.edu) by 3:00pm Wednesday September 13.

DIRECTIONS TO BUCKNELL UNIVERSITY:

Address of the Academic West Building: 616 Coleman Hall Dr, Lewisburg, PA 17837

East of Lewisburg:	West of Lewisburg:
1. Interstate 80 West to Exit 210A	1. Interstate 80 East to Exit 210A
2. Route 15 South	2. Route 15 South
3. At 11th traffic light (the first light after crossing	3. At 11th traffic light (the first light after crossing
Route 45 (Market Street)), turn left onto Moore	Route 45 (Market Street)), turn left onto Moore
Avenue. (Look for the Bucknell Athletic Stadium on	Avenue. (Look for the Bucknell Athletic Stadium on
the left.)	the left.)
South of Lewisburg:	North of Lewisburg:
1. Take Routes 11&15 North	1. Take Route 15 south
2. When Routes 11 & 15 split, stay on Route 15	2. Once past Interstate 80, turn left on Moore Avenue
3. Approx. 7 miles after Selinsgrove / Shamokin Dam,	at the 11th traffic light (the first light after crossing
you'll come to a stop light. Bucknell is on your right.	Route 45 (Market Street)). (Look for the Bucknell
(Look for the Bucknell Athletic Stadium on right.)	Athletic Stadium on the left.)

Once on campus: Follow the campus map below to the visitor parking designated with a **P**





Online campus maps can be found at https://www.bucknell.edu/sites/default/files/public-safety/campusmap.pdf

LOCAL SECTION NEWS:

LOCAL SECTION ELECTIONS FOR 2024 OFFICERS:

Nominations are due for the positions of:

Chair-elect (one year term as Chair-Elect, one year as Chair, and one year as Past Chair) Secretary, Treasurer, Councilor, and Alternate Councilor (all three-year terms) If interested, please contact any section officer.

2023 LOCAL SECTION AWARDS:

ACS Longevity Awards

DR. MICHAEL C. CANN DR. WILLIAM H. SIMPSON DR. WILLIAM J. SNYDER DR. JOE A. VINSON

50-year member 60-year member 60-year member 60-year member

Joseph Priestley Service Award DR. ERNIĚ TRUJILLO

David H. Frederick Memorial Awards in High School Chemistry

Exam A Winners		Exam B Winners		
AUBREY FLUMAN	Mifflinburg Area High School Teacher – Mr. Jeffrey Kiss	MATTHEW HE	South Williamsport Area High School Teacher – Mr. Matthew Eisley	
ADDISON CONFER	Montoursville Area High School Teacher – Mrs. Natalie Smith	TYLER MCDERMOTT	Mid Valley Secondary Center Teacher – Dr. Jacob Banik	
WILSON HE	Scranton Preparatory School Teacher – Mrs. Donna Barrett			
LIAM MILLER	Honesdale High School Teacher – Ms. Michelle Tonkin			
BRAEDYN HARASCHAK	Berwick Area High School Teacher – Mrs. Christine Readler			
Exam	A Runners-Up	Exam	n B Runners-Up	
ROY ANDREW SASSAMAN	Selinsgrove Area High School Teacher – Ms. Tracy Hepner	CASSANDRA SNYDER	Line Mountain High School Teacher – Dr. Shelley Herb-Fausey	
EMILY KIME	Williamsport Area High School Teacher – Mr. Chase Smith	MACKENZIE VASBINDER	Mifflinburg Area High School Teacher – Mr. Matthew Wells	
CAEL KRUSHNOWSKI	Old Forge Junior Senior High School Teacher – Ms. Adrianna Rupprecht	MERCEDEZ FARR	Milton Area High School Teacher – Mr. Jonathan Bixler	
NICHOLAS PANE	Western Wayne High School Teacher – Ms. Maria Masankay	ELLA OAKES	Shikellamy High School Teacher – Mrs. Jenna Mowery	
DAVYN PIATT-FERREIRA	Hanover Area Jr/Sr High School Teacher – Dr. Jocelyn Holodick-Reed		,	
DEREK DANG	Marian Catholic High School Teacher – Mr. Robert Valente			

National Chemistry Week Award

FAITH GOMBITA	Honesdale High School	CONNIE C
Grade 9-12	Teacher – Ms. Michelle Tonkin	JESUS VA
KAILEY NEMETH	Drums Middle School	HANNAH (
Grade 6-8	Teacher – Ms. Catherine Tombasco	LAUREN S
GARRISON REINER	Upper Dauphin Elementary School	
Grade 3-5	Teacher – Ms. Emily Renn	
BLAISE GASPER	Drums Elementary	

CHEN AZQUEZ HERNANDEZ HLIN CHANTAVORALAK STETTLER

College Award Winners Bucknell University Lycoming College Misericordia University University of Scranton Susquehanna University

Grade K-2 Teacher - Ms. Cathy Tombasco Blaise also came in second place in the ACS national competition

2023 – 2024 LOCAL SECTION MEETING SCHEDULE:			
20-Sept-2023: Bucknell University	14-Feb-2024: Commonwealth University,		
Note this is the third Wednesday in September	Bloomsburg campus		
18-Oct-2023: Wilkes University Note this is the third Wednesday in October	13-March-2024: Susquehanna University		
8-Nov-2023: Lycoming College	10-April-2024: King's College		
Jan 2024: Executive Board Meeting	May-2024: Awards Banquet		

NATIONAL CHEMISTRY WEEK:



NCW will be celebrated October 15-21, 2023, with the theme, "The Healing Power of Chemistry" The Susquehanna Valley Section is once again collecting illustrated poems for this year's event. If you know of a student in K-12 who would like to participate, please contact Charlie Guttendorf at cg029@bucknell.edu. The deadline for submissions is Sunday, October 22. For further details, see the website.

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 three-year position is the usual office taken on by local chemists who want to begin to become more involved in the local section.

- <u>Chemistry Olympiad</u> Chair Administer Local Chemistry Olympiad Competitions in coordination with the National Chemistry Olympiad.
- WCC (<u>Woman Chemists Committee</u>) Chair Help attract, retain, develop, promote, and advocate for women to positively impact diversity, equity and inclusion in the Society and the profession
- CMA (<u>Committee on Minority Affairs</u>) Chair Help increase the number & participation of racially & ethnically underrepresented scientists in the Society and its governance
- 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 (<u>Chemical Health and Safety</u>) Committee Chair Help provide authoritative technical resources and mentorship in chemical health and safety for all
- SCC (<u>Senior Chemists Committee</u>) 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 (Daniel McCurry, <u>dmccurry@commonwealthu.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 chairs</u>, <u>liaisons</u>).

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

Society for Analytical Chemists of Pittsburgh Spectroscopy Society of Pittsburgh

300 Penn Center Boulevard, Suite 332, Pittsburgh, PA 15235-5503 Phone 412-825-3220 / FAX: 412-825-3224 e-mail: sacpinfo@pittcon.org / www.sacp.org e-mail: sspinfo@pittcon.org / www.ssp-pgh.org



The Spectroscopy Society of Pittsburgh (SSP) and the Society for Analytical Chemists of Pittsburgh (SACP) have decided to expand their geographical membership location to include the SVS. The membership of the SSP and SACP organize the Pittsburgh Conference (Pittcon), a nonprofit whose proceeds are distributed to their societies so that they may complete various outreach and educational programs. The SSP and SACP has provided their technical program for the current season, which has been included in this newsletter. If you would like more Information about joining these societies or attending their meetings virtually, please visit their website at <u>chemistryoutreach.org</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 <u>acs.org/content/acs/en/covid-19</u>

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:

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

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

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 <u>Act4Chemistry X</u> (formerly Twitter) account, or email <u>advocacy@acs.org</u>.

Ask Congress to fund 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

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: <u>https://www.acs.org/membership.html</u>

NATIONAL MEETINGS:



Spring 2024 ACS National Meeting

The Spring 2024 national meeting, "Many Flavors of Chemistry" will be a hybrid event. The meeting will be held March 17-21, and the in-person event will take place in New Orleans, LA. See the <u>website</u> for more information. The call for <u>abstracts</u> has been placed with an October 2 deadline.

SAVE THE DATE:

The 28th Biennial Conference on Chemical Education will be held at the University of Kentucky in Lexington on July 28 – August 1, 2024. See the <u>website</u> for more details.



Susquehanna Valley Section Web Page: <u>svs-acs.org</u>. Please send any comments about the monthly newsletter to Ron Supkowski, Section Secretary <u>ronaldsupkowski@kings.edu</u> King's College 131 N River St Wilkes-Barre, PA 18711