



Pittsburgh Section of the American Chemical Society
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October 2024

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PICTURE PERFECT Chemistry

October 20-26, 2024 #NationalChemistryWeek

Pittsburgh Local Section NCW 2024 activities

Join us for a series of events throughout the entire week. Watch for emails and check our Facebook page and website for updates! For additional information regarding any of these events, contact NCW Coordinator, Evonne Baldauff, at ebaldauff@waynesburg.edu. Scan the code to the right to join our Facebook group.



VOLUNTEER WITH US

"Picture This" Lab experiments Carnegie Science Center October 21, 23, & 24

A series of hands-on experiments in a traditional lab setting for local high school students. Volunteers are needed to serve as lab assistants and will work directly with participants.

Multiple daily lab sessions run from 10:15-11:15 AM and 11:30-12:30 PM. Up to 8 volunteers are needed each day. To sign up, contact Evonne Baldauff (ebaldauff@waynesburg.edu).

SciTech Days: Art and Science Demos Carnegie Science Center October 25th

A traditional exposition-style event, schools from the Pittsburgh region and surrounding communities will bring students to experience hands-on demonstrations and activities on October 20th. Volunteers are needed to host demonstration tables and serve as career panelists. Volunteer through the following form:

[SciTech 2024-2025 Registration](#)

STUDENT GRANTS

ACS Student Chapter host Mini-ChemFest events around the Pittsburgh Region!

Exclusive for undergraduate chapters, host your own ChemFest outreach event for local schools in your geographic area using the NCW 2024 theme. Funding of up to \$200 is available. To sign up, contact Marsha Grimminger (MAG246@pitt.edu).

NETWORK WITH US

Social Networking Events *Watch for Dates, Times, & More Details*

Photo Antiquities Tour in Pittsburgh's North Side


Science Café: Photography and Chemistry with ACS member Sam Leung.



ACS
Chemistry for Life[®]

AMERICAN CHEMICAL SOCIETY

NATIONAL
CHEMISTRY
WEEK





2024 NCW Illustrated Poem Contest Picture Perfect Chemistry

The Pittsburgh Local Section of the American Chemical Society (ACS) is sponsoring an illustrated poem contest for students in kindergarten through 12th grade.

Contest Deadline: Sunday, October 27, 2024 by 11:59 PM ET

Prizes: \$50 1st Place and \$25 2nd Place in each of 4 grade categories: K-2nd, 3rd-5th, 6th-8th and 9th-12th grades.

Contact: Evonne Baldauff, NCW Coordinator. Mail entries to 51 W. College St., Waynesburg, PA or scan and email to ebaldauf@waynesburg.edu.

Winners of the Pittsburgh Local Section's Illustrated Poem Contest will advance to the National Illustrated Poem Contest for a chance to be featured on the ACS website and to win prizes!

Write and illustrate a poem using the NCW theme, **"Picture Perfect Chemistry."**

Your poem must be **no more** than 40 words and in the following styles to be considered:

HAIKU - LIMERICK - ODE - ABC POEM - FREE VERSE - END RHYME - BLANK VERSE

Possible topics related to the theme include:

- Chemical reaction
- Molecules
- Transparent
- Ultrasound
- Colloid
- Film
- Filters
- Lens
- Imaging
- Pixel

Entries will be judged based upon:

- Artistic Merit - use of color, quality of drawing, design, and layout
- Poem Message - fun, motivational, inspiring about yearly theme
- Originality Creativity - unique, clever and/or creative design
- Neatness - free of spelling and grammatical errors

Contest rules:

- All poems must be no more than 40 words, and in one of the following styles to be considered: Haiku, Limerick, Ode, ABC poem, Free verse, End rhyme, and Blank verse.
- Entries are judged based upon relevance to and incorporation of the NCW theme, word choice and imagery, colorful artwork, adherence to poem style, originality and creativity, and overall presentation.
- All entries must be original works without aid from others. Poems may be submitted by hand on an unlined sheet of paper not larger than 11" by 14" or scanned and sent via email. Illustrations may be created using crayons, watercolors, other types of paint, colored pencils, or markers. The illustration may also be electronically created by using a digital painting and drawing app on a computer, tablet, or mobile device.
- The text of the poem should be easy to read and may be typed before the hand-drawn or digital illustration is added, or the poem may be written on lined paper, which is cut out and pasted onto the unlined paper with the illustration.
- No clipart or unoriginal images can be used.
- Only one entry per student will be accepted; all entries must include an entry form. If the illustration is created using a digital painting or drawing app, the name of the program must be included on the entry form.
- Acceptance of prizes constitutes consent to use winners' first name, and entry for editorial, advertising, and publicity purposes.
- Do **not** place participant names on the front of your poem





ACS Local Section
Pittsburgh

“ON THE ROAD” MEETING

TUESDAY, OCTOBER 22
SAINT FRANCIS UNIVERSITY AND ZOOM
SCIENCE CENTER ROOM 219

5:30 PM - ACS MEETING
6:30 PM - SEMINAR



“Hooked on f-elements”

Karah Knope, Ph.D.
Associate Professor
Georgetown University

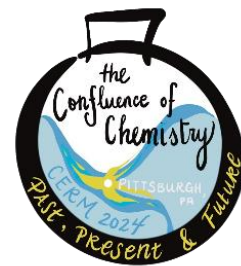
The f-elements – the two rows often shown as removed from the rest of the periodic table – have received considerable political and scientific attention due to their importance to hi-tech applications, energy technologies, and national security. Yet, despite the widespread use of the lanthanides in everyday technologies and the actinides perhaps most notably in nuclear energy systems, our understanding of the chemical behavior of these elements lags behind that of the rest of the periodic table. To fill this gap, our group has harnessed structural chemistry to uncover new insights into the fundamental behavior of the 4f- and 5f-elements that may be applied to areas ranging from separations to waste management. Presented here will be an overview of my journey to the f-block, current needs in the community, and the role that structural chemistry plays in understanding the behavior of elements such as the actinides (e.g. Th, U, and Pu) under waste management conditions.



RSVP by Tuesday, October 15 at
<https://forms.gle/yyGjYddtsbKP99JY7>



AMERICAN CHEMICAL SOCIETY PITTSBURGH SECTION AWARD BANQUET



Honoring

50, 60, AND 70-YEAR PITTSBURGH ACS MEMBERS

PITTSBURGH WOMEN CHEMISTS COMMITTEE AWARD WINNERS

Dr. Michelle Ward for Encouraging Women into the Chemical Sciences

Dr. Velvet Journigan for Excellence in the Chemical Sciences

2024 DISTINGUISHED SERVICE AWARD WINNER

Dr. Kimberly Woznack

2024 CENTRAL REGIONAL MEETING AWARD WINNERS

Renee Schreyer for Outstanding High School Chemistry Teaching

Dr. Nicolai Lehnert for Advancing Diversity in the Chemical Sciences

2024 PITTSBURGH AWARD RECIPIENT

To be Announced

THURSDAY, NOVEMBER 7, 2024

DoubleTree by Hilton – Green Tree
500 Mansfield Ave.
Pittsburgh, PA 15205

Cocktail Hour: 6:00 PM
Dinner: 6:30 PM
Award Presentation: 7:00 PM

Registration must be submitted by **Friday, October 18, 2024**: \$60.00. Parking is available at the hotel.

To officially register for the event, payment must be received. Please register electronically at

<https://pittsburghacs.org/2024-awards-banquet/>

The Pittsburgh ACS Awards Banquet is combined with the 2024 Central Regional Meeting. Please direct any questions about the awards banquet to Dr. Edward Zovinka at ezovinka@francis.edu. Any questions about CERM 2024 can be directed to Alysia Mandato at atm75@pitt.edu.

2024 ACS Pittsburgh Local Section Officer Nomination Biographies

All positions are open for nominations until October 1, 2024.

Chair-Elect Nominees:

Ronghong Lin, Ph.D.

Dr. Ronghong Lin is a senior R&D chemist and group leader in the R&D department of Calgon Carbon Corporation in Pittsburgh, PA. He is responsible for activated carbon modeling, new product development, and technical support. Dr. Lin received his PhD degree in Chemical Engineering from Syracuse University in 2011. He was a postdoctoral research associate at Syracuse University from 2011 to 2014 and an ORISE postdoctoral fellow at DOE's National Energy Technology Laboratory (NETL) from 2015 to 2018. He later worked as a staff scientist and thermal area lead at Arconic and as an R&D director at Anactisis, LLC, before joining Calgon Carbon in 2021. His current and previous research work includes activated carbon characterization and modeling, adsorption and gas separation, fluid properties modeling, rare earth element separation and recovery, and energy and fuels. He has published one book chapter and more than twenty peer-reviewed journal articles and has delivered numerous presentations at national and international technical conferences. He is a peer reviewer for many prestigious journals. Dr. Lin has been an ACS member since 2012 and currently serves as secretary and director of the ACS Pittsburgh Local Section and chair of the Local Section's environmental group. In addition, he is a member of the Society for Analytical Chemists of Pittsburgh (SACP) and the Spectroscopy Society of Pittsburgh (SSP). He serves as chair of SACP's K-12 Science Innovation Grant Committee and chair of SSP's Continuing Education Committee.

Treasurer-Elect Nominees:

Position available to begin as Treasurer-Elect on January 1, 2025, and Treasurer from January 1, 2026, to December 2027.

Responsibilities: The Treasurer shall have charge of the funds of the Section, keep an accurate record of all receipts and disbursements, receive dues, and make those disbursements approved by the Executive Committee. The Treasurer shall render an account of all transactions and of the financial condition of the Section to the Executive Committee at times set by the Committee and shall submit such reports as are required by the ACS Governing Documents. In the absence of the Treasurer, the Treasurer-elect shall keep an accurate record of all receipts and disbursements.

Secretary-Elect Nominees:

Position available to begin as Secretary-Elect on January 1, 2025, and Secretary from January 1, 2026, to December 2027.

Amalene Cooper-Morgan, Ph.D.

Dr. Amalene Cooper-Morgan earned her B.S. from Long Island University in New York in 2001 and completed her Ph.D. at Columbia University in 2008. Subsequently, she conducted postdoctoral research at the University of Massachusetts Medical School (UMMS), where she received an NIH T32 Training grant. Dr. Cooper-Morgan has 12 years of teaching experience. She recently joined Seton Hill University in 2019, where she is an Associate Professor of Chemistry. Her teaching and research pedagogy promotes active learning, problem solving method of learning, in addition to the incorporation of new and emerging biochemical tools and technology into curricular development. She is currently working on ways to make CRISPR, a revolutionary gene editing tool, more accessible to undergraduates, transforming the laboratory experience from an expository to a course undergraduate research experience. Her interest and passion for STEM began with her own experience as a SURF student. She has 14 years of experience in outreach, including working as a SURF program leader, with the Worcester Pipeline Outreach program (UMMS), with Girls Inc., and Eureka program in Massachusetts. Locally, Dr. Cooper-Morgan has participated in the Career Café videos for Westmoreland YWCA Greater Pittsburgh STEM Tube to encourage young girls to pursue careers in STEM. With a long history in outreach, in 2021 Dr. Cooper-Morgan started the Future Scholars Program, a STEM outreach program in partnership with K-12 schools. Notwithstanding, she works on initiatives to recruit and retain students from underserved groups into the STEM fields. Exemplified most notably, by her leadership as a co-PI of the Louis Stokes Alliance for Minority Participation (LSAMP) Scholars Program, a program to increase the number of underrepresented minorities who matriculate and graduate with degrees in STEM, at Worcester Polytechnic Institute. Her passion for mentoring is not overlooked. Dr. Cooper-Morgan actively mentors students, of mention is her involvement in an NSF S-STEM grant as a co-PI. The S-STEM was awarded to Seton Hill University in 2023 to bolster lower-income students who wish to major in STEM. Service to her community is of note, Dr. Cooper-Morgan is an Associate Member of ACS' Committee on Public Relations and Communications, as well as being active in her local section. Dr. Cooper-Morgan is the Chair of Pittsburgh's Women Chemists Committee where she actively pursues events and activities to encourage and empower women chemical scientists.

Kristin Nuzzio, Ph.D.

Kristin Nuzzio has been a member of the American Chemical Society for 17 years and is currently serving as a Pittsburgh Local Section Councilor and Member of the National ACS

Committee on Economic and Professional Affairs. She is the Global Data Stewardship Group Leader for Science & Technology at PPG, where she has worked for nine years in a variety of research and supervisory roles in paints and coatings R&D. Kristin received a Ph.D. in Physical Chemistry from the University of Illinois at Urbana-Champaign in 2015 and a B.S. in Chemistry and B.A. in Spanish from the University of Delaware in 2009. Kristin is passionate about career development and supporting others to identify and achieve their professional goals. She serves as an ACS Career Consultant and is a regular contributor to the ACS Industry Matters Newsletter. Through the Local Section, she is organizing career workshops and a symposium at the upcoming CERM meeting in Pittsburgh this fall. At PPG, Kristin is a global leader in the Abilities First disability inclusion employee network, member of the R&D Diversity Council, and Women's Leadership Mentor Circle facilitator. She is active in university recruiting initiatives and community outreach at PPG as a member and former Chair of the Science Education Council.

Director Nominees:

Evonne Baldauff, Ph.D.

Evonne Baldauff is a Professor of Chemistry at Waynesburg University where she also holds several administrative roles (Chair of the Department of Chemistry & Forensic Science, Interim Department Chair for Math, Computer Science, & Physics, and Assistant Provost for Faculty Excellence and Curriculum Development). She received her B.S. in chemistry from Grove City College followed by a Ph.D. in inorganic chemistry from Purdue University. She is currently embarking on a new area of research in exploring how both teaching, and teaching with, an entrepreneurial mindset can impact student learning in undergraduate chemistry courses. Baldauff has advised the Waynesburg University ACS Student Chapter since 2007, during which time the group was recognized fifteen times as an "Outstanding Student Chapter." She has been active in the ACS Pittsburgh Local Section since 2013, serving in various roles (secretary, treasurer, chair, and director). She assumed the role of NCW coordinator for the section in 2019, earning recognition for the "Outstanding Ongoing NCW Event" ChemLuminary Award that same year and again in 2022. At the national level, Baldauff has served on the Undergraduate Student Advisory Board (USAB) since 2020. She has coordinated undergraduate programming at the local and national levels (CERM 2014 and 2024, and the 2021 ACS Spring Meeting). Baldauff was chosen by the local section in 2021 for the Distinguished Service Award, and in 2023 she was selected as the ACS Global Outreach Volunteer of the Year. She feels very honored to have received these recognitions and looks forward to continuing her service to the Pittsburgh ACS Local Section as it works to fulfill its mission to "advance the broader chemical enterprise and its practitioners" in the region.

Logan Miller

Logan Miller received his B.S. in Chemistry with a major in biochemistry and forensic chemistry from Slippery Rock University of Pennsylvania (SRU). Logan obtained his M.S. from Duquesne University and is currently working full-time as an Application Scientist with Shimadzu Scientific Instruments. Within the Pittsburgh ACS section he has served as the editor the Pittsburgh Section of the ACS Crucible newsletter and has been an ACS member since 2009. Additional roles within the ACS involve being chair of publicity/marketing committee for Pittsburgh ACS and Vice-Chair of Pittsburgh ACS's Women Chemist's Committee. Since 2018 Logan has served as one of the Pittsburgh section's Directors. Additional committees that Logan has served on have included Long Range Planning, multi-year term as Secretary of the section, Crucible committee, and chair of Professional Relations/Employment committee. Logan has also been awarded the ACS Younger Chemist Committee Younger Chemist Leadership Development Award. Logan alongside his co-chair are the current 2024 Central Regional ACS meeting general chairs, he looks forward to a successful CERM 2024. In addition to ACS, Logan is actively involved (Chair/Co-Chair positions) in numerous committees with both SACP and SSP and has been a member since 2013. In 2018 he was also selected to serve as organizing committee member with the Pittsburgh Conference (PITTCON) and has served on various committees, currently as Chair-Elect for Attendee Experience. He continually champions for the Pittsburgh ACS section and looks forward to the future growth and expansion of the section and continued success of programming.

Matthew Price, Ph.D.

Matthew joined the Chemistry and Physics Department at California University of PA (now PennWest University-California) in the fall of 2005. His main instructional load consists of Organic and Biochemistry courses and also participates in the chemistry programs integrated laboratory and research program. Matthew has participated in the department's ACS accreditation efforts, has served as Chemical Hygiene officer in the department, and as department chair of the Chemistry and Physics Department at CalU (2014-20) and PWU-Chemistry (2022-23) and as Assistant Chair (2023-24). Matthew has also been actively involved in the General Education committee at CalU since 2008, serving as assessment coordinator (2009-15), vice-chair (2012-17), Chair (2017-22) and PWU-GenEd Integration Chair (2021-2).

Matthew received a B.S in Chemistry in 1995 from Adams State College in Alamosa, CO and a PhD. in Organic Chemistry from the University of Utah in 2002 under the direction of Cynthia Burrows in the area of polymeric bioconjugates synthesis toward creating gene transfection agents. While at Utah, Matthew received the NIH Biological Chemistry Training Fellowship. Upon completion of his graduate studies, he conducted proprietary research into polymeric drug formulations at a biotechnology company in downtown Salt Lake City until accepting a position as a visiting assistant professor at Earlham College in 2004-05.

Matthew joined the Society for Analytical Chemists of Pittsburgh (SACP) in 2009, and has been an active member serving as an advisor in the student affiliates and on various committees, including National Chemistry Week committee (chaired in 2013-4, 2021-22). He served as SACP secretary in 2019-20, treasurer in 2020-21, chair-elect in 2022-23 and chair in 2023-24. He has served on the Pittcon committee (Short Courses chair 2022, Student Aides 2024, Employment 2025-26). and presented research with undergraduates at PittCon the past eight years. Matthew has also been a member of the American Chemical Society since 1998, serving in the Pittsburgh section as secretary (2015), chair-elect (2019), chair (2020), and treasurer (2022-24). He currently serves as a co-chair of the CERM 2024 committee.

Councilor Nominees:

Niharika Botcha, Ph.D.

Niharika Krishna Botcha is a Special Lecturer in the Department of Chemistry at Carnegie Mellon university (CMU). She started out with a bachelor's degree in chemical engineering from BITS-Pilani Goa Campus in India. After a short stint in Germany, she followed it up with a master's degree in chemistry and a PhD in Materials Science from The University of Alabama in Huntsville (UAH). Her research work was focused in the area of Inorganic Chemistry, so she continued with a postdoc in her field at CMU. Realizing her passion for teaching she then transitioned to a special faculty position at CMU.

As a graduate student at UAH, Niharika served as the President and Co-President of the Chemistry Student Committee and the Society of Women Chemists respectively. She was also a mentor for the Army Educational Outreach Program and Research and Engineering Apprenticeship Program for two consecutive years at UAH. As a postdoc, Niharika was the NPA Meetings committee member serving as the vice-chair for both the Plenary/Keynote subcommittee as well as the Workshops/Poster subcommittee.

As the current treasurer of the Pittsburgh local section, she is a volunteer and an officer of the section. She is also currently serving as the treasurer for the Central Regional Meeting (CERM) 2024 which is being hosted and organized by the Pittsburgh local section. Niharika has been an ACS member since 2017 and has been an active volunteer in her local section activities since. Through ACS, Niharika had the opportunity to participate as well as serve in various outreach activities. Currently as a part of the Pittsburgh local section of ACS, she is excited to contribute her time and efforts to better serve her section.

Kristin Nuzzio, Ph.D.

Kristin Nuzzio has been a member of the American Chemical Society for 17 years and is currently serving as a Pittsburgh Local Section Councilor and Member of the National ACS Committee on Economic and Professional Affairs. She is the Global Data Stewardship Group

Leader for Science & Technology at PPG, where she has worked for nine years in a variety of research and supervisory roles in paints and coatings R&D. Kristin received a Ph.D. in Physical Chemistry from the University of Illinois at Urbana-Champaign in 2015 and a B.S. in Chemistry and B.A. in Spanish from the University of Delaware in 2009. Kristin is passionate about career development and supporting others to identify and achieve their professional goals. She serves as an ACS Career Consultant and is a regular contributor to the ACS Industry Matters Newsletter. Through the Local Section, she is organizing career workshops and a symposium at the upcoming CERM meeting in Pittsburgh this fall. At PPG, Kristin is a global leader in the Abilities First disability inclusion employee network, member of the R&D Diversity Council, and Women's Leadership Mentor Circle facilitator. She is active in university recruiting initiatives and community outreach at PPG as a member and former Chair of the Science Education Council.

Edward P. Zovinka, Ph.D.

Edward is a Professor of Chemistry at Saint Francis University (SFU). AT SFU he has served in a number of administrative roles including service as Chair of the Chemistry, Mathematics, & Physical Sciences, the Faculty Athletics Representative (FAR) and he was the Science Center Building Shepherd during planning and construction phases. He earned a BS in chemistry from Roanoke College and his PhD in Chemistry from the University at California – Davis. He completed postdoctoral research at NC State University and also completing sabbatical research at Penn State, Carnegie-Mellon, and Yale Universities.

He is strongly committed to undergraduate research and community service, receiving grants from the National Science Foundation, the Office of Naval Research, the ACS-Petroleum Research Fund, the Palumbo Foundation, FirstEnergy, and the Society for Analytical Chemists of Pittsburgh to support the efforts. He has published 38 peer reviewed chemistry manuscripts (21 scholarly publications with SFU undergraduates), 2 books on chemistry, received a patent, and co-author on 60+ presentations at (inter)national conferences. He is strongly committed to improving science education. For 25+ years, he directed the Rural Outreach Chemistry for Kids (R.O.C.K.) program reaching over 75,000 K-12 students in our region in that timespan.

He has served the ACS as Chair ('23) of the Pittsburgh LS and as Chair of the Spectroscopy Society of Pittsburgh ('23-'24). He is a Committee Member of Pittcon ("The Pittsburgh Conference"), being Pittcon Program Chair (2023, Philadelphia), with responsibility as Attendee Experience Co-Chair (2025, Boston) and Exposition Chair (2026, San Antonio).



Central Regional Meeting

November 6 – 9 | Pittsburgh, PA

Still Time to Register for CERM 2024!

The 2024 CERM theme is “The Confluence of Chemistry: Past, Present, and Future”. Our beautiful city of Pittsburgh is at the center point of three rivers. The Allegheny river and the Monongahela river join to form the Ohio river. In the same way, chemistry as a whole is built by the chemists of our past, the present-day discoveries, and the outlook of chemistry in the future. Through this theme, we will honor and celebrate the history and future of chemistry with our regional chemistry community in Pittsburgh and beyond.



Book your stay for CERM 2024

The conference will be held at the DoubleTree by Hilton Hotel Pittsburgh – Green Tree. Book now with the ACS discounted rate by October 13. [Book Now >>](#)



Program-at-a-Glance

Experience CERM 2024 from Wednesday, November 6 to Saturday, November 9, with a variety of workshops, luncheons, poster sessions, and technical programs. [Learn More >>](#)



CERM 2024 Awards Dinner

Join us at a dinner and awards ceremony that will celebrate the achievements of ACS members (\$60 per person). [Learn More >>](#)

Attending the CERM 2024 offers several compelling benefits:

Networking Opportunities: Connect with fellow chemists, researchers, and industry professionals. This can lead to collaborations, job opportunities, and valuable professional relationships.

Cutting-Edge Research: Stay updated on the latest advancements in various fields of chemistry through technical symposia, poster sessions, and plenary lectures.

Professional Development: Participate in workshops and courses that can enhance your skills and knowledge, helping you excel in your career.

Exhibition and Resources: Explore the exhibition to discover new products, technologies, and services that can aid your research or work.

Cultural Experience: The event is held in Pittsburgh, a city known for its rich history and vibrant cultural scene. Enjoy the local attractions and the unique theme of the meeting, "The Confluence of Chemistry: Past, Present, and Future".

Community Engagement: Be part of a community that celebrates the history and future of chemistry, honoring the contributions of past chemists while looking forward to future discoveries.

To register, you will need an ACS ID. You can easily [create a free ACS ID](#) if you don't already have one.



Project SEED: Pittsburgh Section of the ACS

Summer 2024

Our 2024 Project SEED program at Covestro in Pittsburgh, PA, is complete. The SEED program helps to ensure that academically qualified students from economically disadvantaged backgrounds have opportunities to work in real labs with real scientists. This year, our student, was Anouk R. Her mentor was Dr. Nathan Chaffin, who is confident Anouk learned a lot about what it means to be a chemist in corporate America! Co-mentors and collaborators included: Drs. Jeff Johnson, Joe Martin, Corinda Nail, Michael Novak, and Melissa Swogger.

Anouk spent most of her time in the wet chemistry lab working with polyether polyols (components of polyurethanes that make up flexible foam materials). She assisted by precisely weighing samples and controls for hydroxyl and moisture testing, performing Karl Fischer titrations, and conducting Hazen color tests. She learned the value of water content and its influence on final properties, such as curing. In addition, she learned a little something about color chemistry and the importance of consistent, accurate results.

In the elemental and polymer physics labs, Anouk learned about oxygen combustion sample preparation used for ion chromatography, and inductively coupled plasma optical emission spectrometry (ICP-OES). The latter is a technique that can determine the amount of specific elements within a sample.

In the polymer physics lab, Anouk learned about particle size testing through laser diffraction. Here she learned how to use the Mastersizer 3000, an instrument used for laser diffraction testing.

Anouk would like to thank everyone at Covestro and the American Chemical Society for giving her this opportunity. She enjoyed and valued the experience and connections she made and plans to consider studying chemistry or chemical engineering in college.

Environmental Lecture Series XIII

Wednesday, Oct. 16, 2024
12:00 pm – 1:00 pm (EST)

Teams Meeting:
ID: 422 076 052 42
Passcode: xWHQgg



Sustainable Chemistry in the Context of Sustainable Food Systems



Vania G. Zuin Zeidler, PhD
Institute of Sustainable Chemistry
Leuphana University (Germany)



Scan the QR code
Or click [Here](#)
to Register



Sustainable Chemistry in the Context of Sustainable Food Systems

Vania G. Zuin Zeidler, PhD, Institute of Sustainable Chemistry, Leuphana University (Germany)

The concept of sustainable chemistry (SC) (Zuin Zeidler, 2023) addresses the reduction and simplification of total substance, material, product – including the so-called waste or loss – and energy flows, from the local to global level. Circularity for materials implies that the origin of products, their composition, ways to collect, extract, transform, reduce, reuse or recycle them, associated risks and benefits, costs and gains, drivers, potentialities, functions and services are perceived as a system, allowing one to start with measures at the source as under discussion for other sectors, such as the Food sector (Zuin Zeidler, 2024). Thus, in the context of circularity, the knowledge required to apply systems thinking is fundamental to understand the challenges and potentialities promoting the construction of sustainable food systems collectively, in an integrated manner (Zuin Zeidler & Kümmerer, 2021). This presentation is an invitation to put chemistry and specially chemistry education in a broader perspective to discuss circularity of materials and relevant processes, considering some key elements towards more sustainable food production and consumption models.

References:

Zuin Zeidler, V. G. (2023). Defining sustainable chemistry: an opportune exercise? *Science*, 382, 6667.

Zuin Zeidler, V. G. (2024). Sustainable chemistry and food systems lessons-the same procedure as every year? *Science*, 383, 6683.

Zuin Zeidler, V.G., & Kümmerer, K. (2021). Towards more sustainable curricula. *Nature Reviews Chemistry*, 5, 76–77.

Dr. Dr. Vania Zuin Zeidler is a Full Professor at the Institute of Sustainable Chemistry at Leuphana University (Germany), and currently the Pro-Dean of Gender and Diversity, the Coordinator of the new Master Program "Sustainability Science: Resources, Materials and Chemistry (M.Sc.)" and the Chair of the PhD Committee Dr. rer. nat. at the Faculty/School of Sustainability. Her background is Green and Sustainable Analytical Chemistry and Green and Sustainable Chemistry Education, with major interests in developing analytical methods that are incipient to determine renewable and bioactive high-value organic substances extracted from agro-industrial residues (separation science). Prof. Zuin Zeidler has established a well-structured network between industries, governmental and non-governmental sectors to improve research and application of Green and Sustainable Chemistry knowledge all over the world. She was the Founding Director of the Field & Food Tech Hub -UFSCar (<http://fieldfoodtechhub.ufscar.br/>), a RD&I platform aiming at being a centre of excellence in green technologies and sustainability in resilient agro-industrial sectors in all aspects, from farm to fork. Prof. Zuin Zeidler is author of several publications of high impact in the areas of her expertise and has been invited to give several lectures in the academic and industrial sectors.

Celebrating Hispanic Heritage Month: The Southern California Section of the American Chemical Society (SCALACS) showcases seminars by two distinguished scientists as role models for our next generation (funded by the LSAC-DEIR grant).

NATIONAL HISPANIC HERITAGE MONTH VIRTUAL SYMPOSIUM

THURSDAY, OCTOBER 3 • 2 - 4 PM

Title: **ACYLOXYPHOSPHONIUM IONS AS VERSATILE BUILDING BLOCKS IN ORGANIC SYNTHESIS**

Presented by: **Dr. Socrates Munoz, Kansas State University**

Time: **2:00 - 3:00 PM**

Abstract:

This seminar will explore synthetic advances using carboxylic acids directly in both uncatalyzed and catalytic processes. Acyloxyphosphonium ions, derived from carboxylic acids stand as versatile intermediates useful to produce a range of compounds (ketones, aldehydes, acyl fluorides, etc.) through acylative cross-couplings. Additionally, we will examine complementary reactivity such as catalytic decarbonylations, related C–O bond activation and one-electron chemistry.

Prof. Munoz is currently Assistant Professor at Kansas State University conducting research that lies at the intersection of synthetic organic, organometallic chemistry and photoredox catalysis. He obtained his PhD in synthetic and physical organic chemistry at the University of Southern California and continued his postdoctoral studies at the USC's Loker Hydrocarbon Research Institute developing novel fluorination and fluoroalkylation methods. He then joined Caltech as a NIH Postdoctoral Fellow to work on developing enantioconvergent photoinduced Cu-catalyzed cross-coupling reactions.



Title: **QUANTITATIVE MASS SPECTROMETRY FOR UNDERSTANDING EPIGENETIC MECHANISMS**

Presented by: **Professor Benjamin A. Garcia, PhD, FRSC, Washington University School of Medicine**

Time: **3:00 - 4:00 PM**

Abstract:

This seminar will focus on recent advancements in high-throughput quantitative mass spectrometry for analyzing histone post-translational modifications (PTMs) and chromatin structure. We will explore how these technologies are used to study epigenetic reprogramming in malignant peripheral nerve sheath tumors (MPNSTs), an aggressive sarcoma linked to disruptions in the polycomb-repressive complex 2 (PRC2), a key histone-modifying complex involved in gene silencing.

Prof. Garcia joined the Washington University School of Medicine in St. Louis in 2021 to become the Raymond H. Wittcoff Distinguished Professor and Head of the Department of Biochemistry and Molecular Biophysics. He is presently also an Associate Editor of the Analytical Chemistry, and Mass Spectrometry Reviews journals; and serves on the editorial boards for the Molecular Omics, the Journal of Proteome Research and the Molecular and Cellular Proteomics journals. He also serves in the Executive Committee of the American Chemical Society (ACS) Analytical Chemistry Division. An ACS Fellow, Ben has been recognized with many honors and awards, notably the American Society for Mass Spectrometry (ASMS) Research Award, a National Science Foundation CAREER award, an NIH Director's New Innovator Award, and the Presidential Early Career Award for Scientists and Engineers (PECASE).



RSVP: scalacs.org

**SSP/SACP Joint Meeting
Monday, October 14, 2024
Duquesne University Power Center**



5:00 PM – Social Hour
6:00 PM – Dinner
6:45 PM – Business Meeting
7:15 PM – Technical Program

SACP Technical Program

**“Upgrading the Bioanalytical Toolbox with High Sensitivity Microfluidics”
Dr. Tom Linz, Associate Professor, Department of Chemistry
Wayne State University**



Biography:

Dr. Tom Linz is an Associate Professor in the Department of Chemistry at Wayne State University. Dr. Linz obtained his B.S. from Truman State University in 2007 and his Ph.D. from the University of Kansas (Advisor: Sue Lunte) in 2013. He then worked as a postdoctoral researcher at the University of North Carolina at Chapel Hill (Advisor: Mike Ramsey) until joining the faculty at Wayne State in 2016. The Linz Lab focuses on developing innovative microfluidic methods for improved bioanalytical measurements. Dr. Linz has been recognized with awards including the Satinder

Ahuja Award from the ACS Analytical Division and the Junior Faculty Award from the Wayne State Academy of Scholars. Research in the Linz Lab is supported by NIH, NSF, and SACP.

Abstract:

Microfluidic analyses offer numerous benefits compared to traditional bioanalytical techniques. These miniaturized systems afford faster analysis times, require less sample volume, and can integrate sample preparation and analysis into a single platform. Our laboratory has harnessed these benefits to develop high sensitivity gel electrophoresis and digital PCR methods to measure diverse biological analytes including proteins, nucleic acids, and cells. Our electrophoresis project utilizes thermally responsive polymers as a gel matrix. Temperature is adjusted to tune analytical performance and achieve preconcentration and separation of biomolecules and cells. Our digital PCR project integrates detection of proteins and nucleic acids. Target analytes are measured from individual biocomplexes with single-molecule sensitivity. The innovative analytical strategies developed in our laboratory enhance measurement capabilities to facilitate biological research.

For complete details and to make a dinner reservation, please visit our society's website. Deadline for dinner reservations is Monday, October 7, 2024 by noon.

<https://chemistryoutreach.org/events/monthly-meeting/>

For the Love of Science!



Do you teach K-12 science or know someone who does?

The **Society for Analytical Chemists of Pittsburgh (SACP)** and the **Spectroscopy Society of Pittsburgh (SSP)** are non-profit organizations dedicated to furthering science education. We offer a wide variety of grants, awards and programming!

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**Essay Contests¹ Equipment Grants¹ Educator Recognition Awards¹
Funding for Innovative Science Education Projects and Programs¹
Science Olympiad Grants¹**

**Computer Workshops² Faraday Lecture^{2,3}
Planetarium Demonstrations²**

¹ Awardees must live in our 8 state region which includes PA, OH, WV, DE, MD, NY, NJ and VA.

² Held in or near Pittsburgh, PA.

³ The Faraday Lecture is presented annually by educators and scientists throughout the nation. Its demonstrations in chemistry and physics inspire middle and high school students each year.



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SACP/SSP 2024–2025 MONTHLY MEETING CALENDAR

5:00 – 6:00 Social Hour
 6:00 – 6:45 Dinner
 6:45 – 7:15 Business Meeting
 7:15 – 8:15 Technical Program

Date	Speaker/Institution/Topic	Host
Monday September 16, 2024	Igor K. Lednev, Williams-Raycheff Endowed Professor, University at Albany, State University of New York “Raman Spectroscopy and Machine Learning for Medical Diagnostics and Forensic Purposes”	SSP Chuck Gardner
Monday October 14, 2024	Dr. Tom Linz, Associate Professor, College of Liberal Arts & Science, Wayne State University “Upgrading the Bioanalytical Toolbox with High Sensitivity Microfluidics”	SACP Steve Weber
Wednesday November 6, 2024	Dr. Vicki Grassian, Distinguished Professor and Distinguished Chair in Physical Chemistry, Department of Chemistry & Biochemistry, UC San Diego “Chemistry and Impacts of Environmental Interfaces”	SSP John Baltrus
December 2024	 No meeting Happy Holidays! 	
Monday January 13, 2025	Dr. Robert Kennedy, Hobart H. Willard Distinguished University Professor of Chemistry, Pharmacology, University of Michigan “High Throughput LC and MS Using Droplet Microfluidics”	SACP Neal Dando
Wednesday February 5, 2025	Dr. Neil L. Kelleher, Walter and Mary Glass Professor of Molecular Biosciences and Professor of Chemistry, Northwestern University “The Case to Scale Proteoform Measurement and Biology to The Entire Human Proteome”	SSP Brian Strohmeier
March 1-5, 2025	 Pittcon® Leading in the Lab	Heather Juzwa, President
Monday April 7, 2025	Dr. Alexander Star, Professor, Department of Chemistry, University of Pittsburgh “Synthesis and Exploration of Novel Carbon Based Nanomaterials”	SACP Ed Zovinka
Tuesday May 13, 2025	Awards Banquet Duquesne University Union Ballroom*	SACP, SSP & ACS

*All monthly meetings will be held in the Duquesne University Power Center, unless otherwise noted.

CALLING ALL TEACHERS!

Join us for breakfast and learn about organizing a
Science Olympiad at your school!



A Science Olympiad is a hands-on extravaganza designed to excite, inspire and challenge students of all abilities about science.

Grant money up to \$2,500 is available for interested schools.

The program is designed for students grades 4-6, but can be adapted to include lower grade levels. Visit www.info@chemistryoutreach.org/grants/emssop for more information.

Each teacher in attendance will receive a Science Olympiad starter kit and Manual at the conclusion of the presentation!

Elementary/Middle School Science Olympiad Program Workshop



November 15, 2024 7:30 a.m. - 12:30 p.m.

Hampton Community Center

Great Room A

3101 McCully Road Allison Park, PA 15101

Space is limited! Click [HERE](#) to RSVP now!

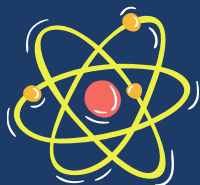
Questions about the workshop? Please email
info@chemistryoutreach.org

Presenters:

Megan Melucci, SSP - EMSSOP program

Janet McCann, St. Monica Catholic Academy - Beaver County

David McCutcheon, Central Elementary School - Hampton Township School District



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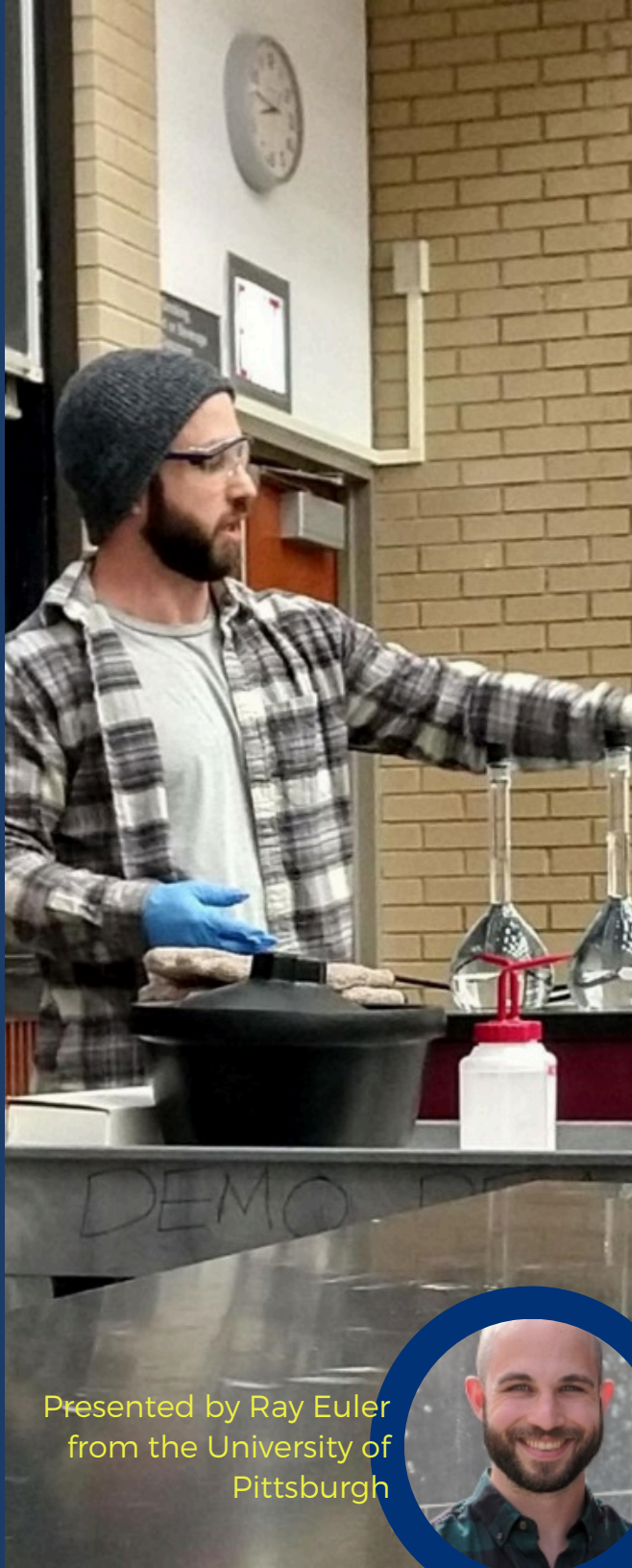


A series of visual demonstrations including color changes, flashes, bangs, and a series of other exciting chemical phenomena!

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NOVEMBER 13TH
10:00 AM
(DOORS OPEN AT 9AM)
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SAILORS
MEMORIAL HALL**

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Presented by Ray Euler
from the University of
Pittsburgh



I attended the ACS Fall 2024 Meeting in Denver, CO. Thanks to funding from the local ACS Pittsburgh chapter, I was able to present my research on novel, highly alkaline stable phosphoniums derived from proazaphosphatranes. It was my first opportunity to present at a national scale conference, and I am extremely grateful for the opportunity provided by the local ACS Pittsburgh chapter for making this possible. I delved deeper into different types of chemistry that I may interact with less frequently and studied many approaches to experiment and project design from many impressive presenters.

I was also afforded the opportunity to see many interesting and enlightening presentations that are relevant to my research, which can be very interdisciplinary. The broad scope of the meeting allowed me to see world-class research and innovation from polymer and material scientists, main group and organic chemists, while also seeing the influence of computational modelling and top of the line characterization on these research projects.

Additionally, the exposition allowed me to talk with representatives from different companies who have expertise in characterization techniques that we use frequently, like Bruker, Bio-Logic, Waters, and Anton Paar, giving an opportunity to learn more about the equipment we use, how to troubleshoot potential issues, and maximize utility in designing new characterization experiments.

Thank you again to ACS Pittsburgh for the funding to give me the opportunity to attend and present at ACS Fall 2024!

Best,

Chris Birch



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American Chemical Society Pittsburgh Section

www.pittsburghacs.org

Dear Academic ACS Pittsburgh Section Members,

The Pittsburgh Section of the American Chemical Society has budgeted funds to help encourage undergraduate/graduate student participation in national and regional ACS meetings. The awards are intended to help defray meeting registration and travel-related expenses (lodging, transportation, per diem) for eligible students. Awards will be made based on the scientific merit of the paper/poster to be presented, financial need, and preference will be given to ACS members.

To apply for the funds, applicants should complete the attached application and return it by the relevant deadline. The deadlines for receipt of applications are as follows:

- **06/01 (for travel to be completed by 12/31)**
- **12/01 (for travel to be completed by 06/30)**

As noted on the application, students should include an abstract and confirmation (if received) of the paper/poster being accepted for the Meeting. In addition to the application form, applicants should include a recommendation letter from the PI of the project being presented and/or a recommendation letter from another and a personal statement as to the anticipated benefits of meeting attendance.

Applications can be made electronically (*preferred*) by emailing the application to Heather Juzwa (hljuzwa@shimadzu.com or heather_sapko@hotmail.com) or by mailing a hard-copy application (Pittsburgh Section ACS Travel Grants / Heather Juzwa / Center / 321 Winners Circle / Canonsburg, PA 15317).

Since 2013, the Pittsburgh Section of the ACS has awarded up to four \$500 grants each year to aid our undergraduate/graduate student members in presenting papers or posters at ACS Meetings. This is an ongoing program in our Section, and details will be updated on our website (www.pittsburghACS.org) as necessary.

Applicants will be notified via email that their application was received. All efforts will be made to announce awards within two weeks of the application deadline, and all applicants will be notified of the final committee decisions. Our Section is looking forward to helping increase the participation of local students in ACS conferences. If you have any questions, please do not hesitate to contact me.

Sincerely,

Heather Juzwa, ACS Pittsburgh Section Student Travel Grants, Chair
Senior Field Sales Engineer, Shimadzu Scientific Instruments, Inc



American Chemical Society
Pittsburgh Section

www.pittsburghacs.org

Application Deadline	Travel Completion Date
December 1	June 30 (subsequent year)
June 1	December 31 (same year)

Name of Applicant: _____

Name of Institution: _____

_____ Undergraduate Student / Year

_____ Graduate Student / Year

Mailing Address to Receive Payment if Awarded:

Email: _____ Phone: _____

PI: _____

ACS Membership No.*: _____

**If you do not know your ACS number, please email hljuzwa@shimadzu.com to receive it by email.*

Meeting Location: _____ Meeting Date: _____

Project Title: _____

_____ Paper Presentation _____ Poster Presentation

**Please attach a copy of your project abstract to the application.*

Has your project been accepted? Yes No

**Attach documentation regarding acceptance if received at point of application.*

Will this be your first presentation at an ACS national or regional meeting? Yes No

If no, please list conferences at which you have presented: _____

Purpose of grant: _____

Other funding sources (if any): _____

Personal Statement of anticipated benefits of meeting attendance: _____

Has the applicant received a travel grant from the ACS Pittsburgh Section in the past? Yes No

If your application was selected, the Pittsburgh Section of the ACS would like you to write a short (one page) description of your activity upon completion of the conference for publication in our monthly newsletter, The Crucible, and on our website. The description is due within 30 days of the meeting attended. Photos are welcomed and encouraged.

I am willing to complete this report: Yes No

Signature: _____

Date: _____

Send completed hard-copy applications and supporting documentation to:

Pittsburgh Section ACS Travel Grants

Heather Juzwa, 321 Winners Circle, Canonsburg, PA 15317

Electronic copies of completed applications should be sent to hljuzwa@shimadzu.com and heather_sapko@hotmail.com. Be sure to place "Pittsburgh Section ACS Travel Grants" in the subject line.



The Crucible

The Crucible is published monthly, August through May. All statements and opinions expressed herein are those of the editors or contributors and do not necessarily reflect the position of the Pittsburgh Section.

Editor: Sarah Scrivener, crucible@pittsburghacs.org

2024 Pittsburgh Section Officers

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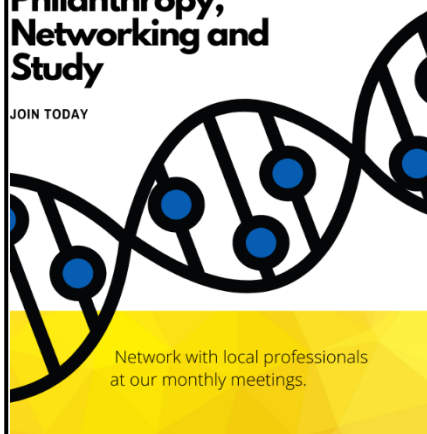
Spectroscopy Society of Pittsburgh



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Advancing Analytical Chemistry through Science Education

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Network with local professionals at our monthly meetings.

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Full Page	\$120	\$115	\$100	\$75
Half Page	\$75	\$70	\$60	\$45
3.5" x 2"	\$50	\$45	\$25	\$20

Volunteer with Us!

We are always looking for new people to join the Pittsburgh Section Executive Committee. Email our Chair to inquire about opportunities.

The Crucible Deadline

The deadline for items submitted to The Crucible is the 25th of the month prior to publication. For example, all items for the February 2024 issue must be to the editor by January 25th, 2024.

ACS Regional Awards – Apply Today!

More information can be found [here](#)