

## 2022 Midwest Regional ACS meeting Technical Sessions

Symposium Title	Symposium Description	Organizers
Symposium in Honor of the 2022 Midwest Award Winner (oral)	This symposium will feature presentations in honor of the 2022 Midwest Award Winner	Renee Cole
Chemistry Research at Primarily Undergraduate Institutions (oral)	This symposium will be for research active faculty who perform research with undergraduate students. Faculty will give an overview of their work in this oral presentation, and we encourage them to have their students submit abstracts to present their work during the undergraduate poster session.	Jay Wackerly Ned Bowden Michael Wentzl
Computational Methods and Applications (oral)	With widely available modern high-performance computing resources, computational scientists not only continue to develop methods to improve the accuracy of computational modeling but also to more efficiently use these resources. This in turn has allowed for larger and more complex chemical questions to be modeled, providing molecular-level insight into a wide variety of chemical phenomena. In this symposium, we invite abstracts that falls in the category of method development or computational applications, broadly defined.	Pere Miro Bess Vlaisavljevich
Environmental Photochemistry (oral)	Photochemical processes play an important role in natural environmental systems, contributing to elemental cycling and influencing pollutant fate and transport. Engineering applications of photochemistry are also critical to sustainable resource management including uses in water and wastewater treatment, pollutant remediation, and catalysis. This symposium welcomes presentations covering the spectrum of environmental photochemical processes, from fundamental chemistry to applied practice. Work from natural systems and engineered applications are encouraged, especially those that focus on the photochemistry of natural waters, emerging pollutant transformation and treatment, and novel photochemical and photocatalytic processes for sustainable chemical production and management.	David Cwiernty Kris Wammer
Sustainable materials and energy for a brighter future (oral)	With a rapid increase in population and increased energy demand motivate scientists to develop sustainable processes and materials to meet the growing demand. This special symposium will cover the recent development in sustainable processes and materials for a brighter future. This symposium will cover both fundamental and applied research. Topics will include materials from renewable resources, green polymers,	Ram Gupta

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	materials for green energy production and storage.	
The Good, The Bad, and The Ugly: Showcasing DEI Efforts Across Institutions (oral)	This symposium will showcase the efforts related to diversity, equity, and inclusion (DEI) occurring at institutions across the Midwest. Individuals and/or groups will have the opportunity to give a 15-18 minute presentation on what they are doing to address issues related to DEI in their departments and/or institutions. We encourage presenters to address both their positive and negative experiences of working towards inclusion in their environments in full transparency. Following the presentations, we will have a safe space to openly talk about what has been discussed. We intend for this symposium to lead to new ideas on how to tackle obstacles within departments and institutions	Leah Scharlott Esmee Belzer Christopher Hartwick Kevin Hunter Celymar Ortiz-de León Hoang Dang
Advances in Crystal Engineering and Solid-State Supramolecular Chemistry (oral)	The symposium will provide a cross-section of contemporary advances in understanding and using the concepts of supramolecular chemistry and molecular recognition to synthesize novel crystalline molecular and framework materials. Central topics of this symposium will be self-assembly in the solid state, crystal engineering, supramolecular strategies, and mechanochemistry, as well as how they combine to provide new directions in materials science and synthesis.	Kristin Hutchins Tomislav Friščić
Sustainable Electrochemistry: Saving the World, One Electron at a Time (oral)	Electrochemistry plays a key role in sustainability. Organized by the University of Iowa Student Chapter of the Electrochemical Society, this symposium seeks to highlight advances and recent work in electrochemistry related to the storage and generation of energy. From the characterization of novel electrocatalysts to the design of batteries and fuel cells, research in electrochemistry has significant impacts on alternative energy and sustainability	Josh Coduto Nathan Stumme
Atmospheric Chemistry (oral)	This symposium will feature novel research in atmospheric chemistry, inclusive of gas and aerosol phases; mechanisms of transformation; impacts on health and climate; novel measurement methodologies; and field, laboratory, and modeling studies.	Betsy Stone Alexei Tivanski
Younger Chemists Research Symposium (oral)	This symposium seeks to highlight scientific achievement of early career chemists in the Midwest ACS region. We seek to promote early career chemists and their endeavors in each of six different disciplines: Chemical Education, Analytical Chemistry, Physical Chemistry,	Andrea Van Wyk Nathan Stumme Tess Feldman

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	<p>Biochemistry, Organic Chemistry, and Inorganic Chemistry. We are looking for chemists who have completed their undergraduate studies within the last year or are in the first two years of their graduate studies. There is no age range. We are aiming to showcase a diverse group of chemists with varying backgrounds and experiences. Abstracts from all students are welcome but priority will be given to early-career students. We are asking students to submit an abstract highlighting the following ideas:</p> <ol style="list-style-type: none"> <li>1. Why is your chemistry important?</li> <li>2. What is the major finding of your work?</li> <li>3. How does this contribute to your field of research?</li> </ol>	
Chemical issues in food processing and agrochemicals (oral)	Whether processing agricultural material for food or creating bio-based products such as polylactic acid or fuel ethanol, many challenges arise which are chemical in nature. Processors face problems such as fouling by proteins, degradation of ingredients, or microbial contamination. This symposium will focus on the chemistry behind such problems and their solutions.	Paul Young
Computational Simulations for Sustainable Chemistry (oral)	Simulation of chemical reactions has long been touted to allow the chemist to predict the outcome of experiments before entering the lab. This applies equally well to those interested in alternative energy generation and production of fine-chemical or polymer precursors all in an effort to replace society's dependence of petroleum with a sustainable option.	Matthew Siebert
Chemical Innovations to Facilitate a Circular Economy and the Remediation of Persistent Pollutants (oral)	New chemical advancements, from fundamental reaction discovery to scale-up engineering, are critical to tackle the complexity of modern pollution challenges. This symposium will focus on a variety of chemical strategies that allow for a more circular economy, enabling regenerative or repurposed end of life options for chemical products and packaging. Further, this symposium will showcase strategies to address current persistent pollutants which cause negative environmental and health impacts, such as perfluorinated compounds.	Florence Williams David Cwiernty
Applied Learning in the Teaching Laboratory: Engaging students through real world context within the laboratory curriculum. (oral)	Featuring presentations that describe the integration of applied learning experiences into the teaching laboratory curriculum. This may include experiments, novel curricula, unique student experiences, or assessment.	Michael Ducey

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Chemistry Education: translating theory into practice(oral)	The results of chemistry education research provide a significant resource to inform teaching strategies and the design of instructional materials at both the high school and undergraduate levels. This symposium will focus both on areas of research that inform chemistry instruction and the implementation of evidence-based practice as instructors work to incorporate more active-learning and science practices into their courses. The goal is to provide a forum for instructors wishing to learn about, adapt, and incorporate research-based materials and teaching strategies into their courses, with the goal of “doing better things” to create more effective learning environments.	Tom Higgins Nicole Becker
Chemoselective Functionalization of Strong Bonds(oral)	The synthesis of valuable organic molecules and the processing of abundant feedstocks or environmental pollutants both require the activation of strong chemical bonds such as C–H, C–O, C–F and C–C bonds. This symposium will bring together diverse perspectives on the selective functionalization of strong bonds with strategies ranging from transition metal catalysis, photocatalysis and main group chemistry, with a focus on applications to organic synthesis and new methods development.	David Martin Florence Williams
Radiochemistry and f-block chemistry(oral)	This symposium will focus on the chemistry of radioactive elements and those in the f-block series with applications to energy, medicine, and the environment.	Tori Forbes Korey Carter
Sustaining Scientific Glassblowing and Chemistry (oral)	Scientific Glassblowing interfacing with the sciences; past, present, future. Developments in the field of glass and ceramics.	Benjamin Revis
Analytical Chemistry (oral and posters)	General Call for oral presentations in the area of analytical chemistry	Alexander Gundlach-Graham
Biochemistry (oral and posters)	General Call for oral presentations in the area of biochemistry	Renee Cole
Inorganic Chemistry (oral and posters)	General Call for oral presentations in the area of inorganic chemistry	Eric Villa
Organic Chemistry (oral and posters)	General Call for oral presentations in the area of organic chemistry	Chris Arnatt
Physical Chemistry (oral and posters)	General Call for oral presentations in the area of physical chemistry	Aditi Bhattacharjee
Undergraduate Research (posters)	General Call for poster presentations of research conducted by undergraduate students.	Jennifer Schmidt-McCormack Rayford Harrison