THE MIDLAND CHEMIST

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Contents

Chair Column

Krishnaja Duvvuri, Chair, Midland Section ACS

Dear Reader,

In the April issue, I am excited to welcome Wendy Flory and Tami Sivy, the co-chairs of Midland Section's Awards and Recognition Committee. They will share insights into the behind-the-scenes work and the significant impact of the committee. Each year, the committee's dedication and hard work help recognize and celebrate the professional achievements of chemists in our community.

Dr. Wendy Flory

Dr. Tami Sivy

Background

The Awards and Recognition committee is dedicated to ensuring well-deserved recognition for the professional accomplishments of chemists within the Midland Section area. This is achieved by administering awards given by the Midland Section and maintaining up-to-date information on regional and national ACS awards. The committee is responsible for announcing nomination periods, receiving award nomination packets, and

deliberating to determine the recipients. They also coordinate the presentation of 50-, 60-, and 70-year member awards and manage local section awards, including those for outstanding high school and college/university students, science education volunteers, outstanding teaching achievements, and professional accomplishments. The committee's efforts culminate in the annual Spring Recognition Dinner, where award winners are celebrated for their contributions to the chemical sciences.

Impact

The Awards and Recognition committee plays a crucial role in acknowledging the professional accomplishments of chemists within the Midland Section area. By administering awards and maintaining up-to-date information on regional and national ACS awards, the committee ensures that deserving individuals receive recognition for their contributions to the chemical sciences.

The committee's efforts in announcing nomination periods, receiving award nomination packets, and deliberating to determine recipients help to highlight the achievements of chemists in various categories, including science education, teaching, student awards, professional awards, and chemical technician awards. This recognition not only motivates individuals to continue their work in the chemical sciences but also inspires others to pursue careers in chemistry and related fields.

The committee's responsibilities for regional and national ACS awards, as well as Midland Section awards, ensure that candidates from the area are considered for prestigious awards administered by the American Chemical Society. This includes Fellows recognition and awards from various divisions and sections of the ACS. By keeping a comprehensive record of available awards and being aware of the timing on impending awards, the committee helps to ensure that deserving candidates are recognized at both regional and national levels.

The annual spring recognition dinner, organized by the committee, provides a platform for local, regional, and national award winners to be celebrated and acknowledged for their contributions to the chemical sciences. A keynote speaker is invited to share their experiences in the chemical sciences at the dinner.

Overall, the Awards and Recognition committee's work in administering awards and recognizing the accomplishments of chemists within the Midland Section area has a significant impact on the community. By fostering a culture of recognition and appreciation, the committee helps to promote the importance of chemical education and the advancement of the chemical sciences.

Biography of the 2025 Awards Committee Co-chairs

Wendy Flory has been an active member of the American Chemical Society (ACS) for over 22 years, starting from her graduate school days and continuing through her career at Dow. She has served in various capacities, including on the National Women Chemists Committee (WCC), as a Midland Section Councilor, local treasurer, awards committee member, chair of Nominations and Elections, and currently chairs the Finance Committee. Wendy has been instrumental in recruiting a diverse range of candidates for the board, aiming to strengthen the section with varied experiences. Locally, she played a key role in establishing the Younger Chemist Committee (YCC) and the Young Researchers Community (YRC) at Dow Chemical. Additionally, she co-chaired several Fall Scientific Meetings from 2002 to 2004. Wendy is a Research Scientist at Dow since 2001 and has a B.S. from The Ohio State University and a PhD in Analytical Chemistry from Michigan State University.

Tami Sivy is a Professor of Chemistry at Saginaw Valley State University. She received a B.S. In Biochemistry from Calvin College and a Ph.D. in Chemistry and Biochemistry from the University of Colorado-Boulder. She mentors many undergraduate students in research, working on rapid DNA testing to determine beach closures and doing microbial source tracking analysis for freshwater samples collected throughout the Saginaw Bay Watershed.

If you are interested in serving on the Awards Committee in any capacity or if you have any questions, please don't hesitate to contact Wendy and Tami at awards@midlandacs.org or Krishnaja Duvvuri at chair@midlandacs.org

The 2025 American Chemical Society-Midland Section Spring Awards Recognition Banquet is scheduled to be held Wednesday, April 30, 2025, at the Great Hall Banquet & Convention Center in Midland. QR code is below, mark your calendar and join us to celebrate our award recipients, connect with colleagues and interact with a diverse group of people passionate about chemistry and the related sciences.

2025 Earth Action Expo Day, April 26

Gina Malczewski, Outreach, Midland Section ACS

This year's Earth Action Expo will be held once again at Dow High School in Midland. As always, it is FREE and open to the public. Sponsors include the Midland Section ACS, Dow High Go Green, Midland Center for the Arts, Midland Recyclers, Chippewa Nature Center, MSU-St. Andrews, and NOBCChE. Exhibits will be open from 11:00 AM to 3:00 PM.

Presentations by speakers (including Peter Sinclair) will be offered every 45 minutes beginning at 11:15 AM (one option per time slot). The last part of the program will be an "Action/Exchange" session where earth-focused non-profit organizations, NGOs, and student groups can find out more about what everyone is doing and look for potential collaborations.

Food trucks will be available, and once again we plan to display hybrid and electric vehicles. There will be panels on food waste, and a sewing room for repurposing fabrics and learning to crochet with plastic bags. A Story Time focused on young children will also be offered, and Illustrated Poem contest entries will be displayed in

the Media Center. See page 9 for more information about the Illustrated Poem contest. STEM activities will abound!

We will need lots of volunteers and please encourage people who can offer different activities to register. Please contact the Expo organizers at earthday@midlandacs.org if you have any questions or wish to participate.

2025 Earth Action Expo Day Call for Volunteers

Gina Malczewski, Outreach, Midland Section ACS

Hello! Earth Day is nearly here, and many in our community are turning out to offer activities, earth-friendly goods, activities, opportunities and information—all free and open to the public on Saturday, April 26, 11 AM to 3 PM at Dow High School. With EVs, food trucks, the Delta STEM bus, hands-on science, and many other exhibits--as well as speakers, STORY TIME, and MORE, we will need assistance with announcements, check-in, and other logistics.

The success of this event depends on our volunteers—and we hope you will consider helping out! There are opportunities before, during, and after start time, and the shifts allow you your own time to explore. **Please go to the link provided, read the background information, and see what's available**. (There is free/subsidized food involved!) Thanks for considering this opportunity and responding; a timely response is greatly appreciated. I hope to see you there!

I am happy to answer any questions—more info will come right before the event—a flyer is also available on the following page that you can post to help us advertise!

LINK: Earth Action Expo Volunteer Signup

EARTH ACTION EXPO

Saturday, April 26, 2025

11 AM - 3 PM

HH Dow High School

3 PM - 4 PM Power Hour Conversation

Scan to save the date and get updates

You're invited to enjoy

- Sustainability speakers
- Hands-on science
- 50+ Exhibitors
- e-Recycling inc. TVs, batteries
- EV car show
- Food trucks
- K-12 illustrated poem exhibit

Speaker Schedule:

- 11:15 Saginaw Bay Watershed - Meaghan Gass, Michigan Sea Grant
- 12:00 Food Waste/Food Security - Samantha McKenzie, Hidden Harvest & Jennifer Grace, Arnold Farms
- 12:45 Mountains of Ice: How the Glaciers Shaped Michigan - Ian Sanders, Chippewa Nature Center
- 1:30 Greenland: A Crucially Important Landscape - Peter Sinclair
- 2:15 SUN101 - Energy, Environment, and a Vibrant Economy - Peter Sinclair

FREE AND OPEN TO EVERYONE!

Sponsored by

2025 ACS Spring Awards Recognition Banquet – RSVP Deadline, April 22
Wendy Flory and Tami Sivy, Awards Committee Co-Chairs, Midland Section ACS

ACS Recognition Dinner

Wednesday, April 30, 5:30 PM to 8:00 PM
Great Hall Banquet & Convention Center at Valley Plaza Resort
5121 Bay City Road, Midland, Michigan

Program

5:30 PM – Register, Cash Bar, and Social Time
6:00 – PM Dinner
6:15 PM – Keynote Speaker
6:45 PM – Awards Presentations

Educators, students, ACS members, industry colleagues, and 50-, 60-, and 70-year ACS members/retirees will be recognized for their outstanding achievements at this 34th annual event. Mark your calendar and join us in support of our award recipients, to connect with colleagues, or just to mingle with a diverse group of people passionate about science!

Our keynote will be delivered by Prof. Susan Olesik, PhD, Distinguished University Professor and Dean of Natural and Mathematical Sciences at The Ohio State University. The title of Prof. Olesik's presentation will be "The Power and Potential of Chemistry."

The Power and Potential of Chemistry

Susan Olesik, The Ohio State University

In today's busy world, we often forget how impactful the chemical sciences are on our daily lives. This presentation will provide examples of the power of chemical science. Continued discoveries and innovations in chemistry and interfacial areas of science continue at a spectacular pace. As conscientious scientists, we must innovate with care to ensure the resilience of our planet. The potential of the field's most recent discoveries on our future will be highlighted, with caution that care must be taken in moving forward sustainably.

Prof. Susan Olesik received her A.S. from Vincennes University in 1975, B.A. from DePauw University in 1977, and Ph.D. in 1982 from the University of Wisconsin-Madison under the auspices of James W. Taylor in the field of analytical mass spectrometry. She was also a postdoctoral fellow for Milos Novotny at Indiana University from 1982-1984 and for Tomas Baer at the University of North Carolina-Chapel Hill from 1984-1986. She has been a faculty member at The Ohio State University since 1986, being promoted to Associate Professor in 1992 and Professor in 1997. She continues as the Director of the Ohio House of Science and Engineering (OHSE), a K-16 science outreach center.

Her awards include: ACS 2014 Helen M. Free Award for Public Outreach, 2014 ACS Award in Chromatography, 2012 AAAS Fellow, 2010 OSU Building Bridges Excellence Award, 2009 ACS Fellow, 2008 ACS National Award for Encouraging Disadvantaged Students into Careers in the Chemical Sciences, 2008 Stanley C. Israel Regional

Award for Advancing Diversity in the Chemical Sciences, 2006 OSU Alumni Association Heinlen Award, 2005 Columbus Technical Council (CTC) Technical Person of the Year, 2004 ACS Columbus Section Award for Outstanding Achievement & Promotion of Chemical Sciences, 2000 AWISCO Woman in Science Award, and a commendation from NASA for contributing a GC column to the Cassini-Huygen's probe.

The central goal of Prof. Olesik's research program is to develop new analytical separation concepts that drive the field toward new levels of performance in speed to analysis and chromatographic efficiency. Current projects include: (1) Nanostructured-Based Materials for Separation Science Applications, (2) Ordered Carbon Materials, (3) Enhanced-Fluidity Liquid Chromatography (EFLC), and (4) Nanofibrous Substrates for Laser Desorption Mass Spectrometry.

The cost of the dinner is $20.00 per person and includes dinner, dessert, and a non-alcoholic beverage. A pre-dinner cash bar will be available. Your dinner reservation request must be received by April 22, 2025.

Register to attend at Midland ACS Awards Committee: 2025 ACS Recognition Banquet (signupgenius.com) or by scanning the QR code at the right. You may pre-pay using the *Pre-Pay Registration* option or pay at the door (cash only) by signing up using the *Pay at Door Registration* option.

Dress is business casual. This event is sponsored by the Midland Section of the American Chemical Society. For more information or any questions, please contact Wendy Flory (wcflory@dow.com) or Tami Sivy (tsivy@svsu.edu), Midland Section ACS Awards Committee Co-Chairs.

ACS Chemistry for Life®

AMERICAN CHEMICAL SOCIETY

2025 Great Lakes Bay Area Project SEED Internships

Michelle Rivard, Project SEED, Midland Section ACS

ACS Local Section Midland

Project SEED AMERICAN CHEMICAL SOCIETY

Great Lakes Bay Area Project SEED Internships

Midland Local Section of the American Chemical Society is excited to announce that we have up to **14 PAID** summer research internships available this summer at Saginaw Valley State University, Central Michigan University, Michigan State University –St. Andrews site.

Program Benefits

Paid internship ($4,000)
Hands-on research experience in a lab
Great addition for your college application
Scholarship opportunities ($5-$20K over 1-4 years)

ONLINE APPLICATIONS DUE APRIL 7TH

For more info on program dates, eligibility criteria, and to apply visit
www.acs.org/projectseed
or email project-seed@midlandacs.org

Eligibility Requirements

Must have parent or guardian permission if < 18
Must have completed high school chemistry
Family income must not exceed 300% of the Federal Poverty Guidelines based on family size

Household/Family Size	300%
2	$ 63,450.00
3	$ 79,950.00
4	$ 96,450.00
5	$ 112,950.00
6	$ 129,450.00
7	$ 145,950.00

2025 Illustrated Poem Contest

Gina Malczewski, Outreach, Midland Section ACS

Third Midlander Named ACS President

Wendell L. Dilling, Past Midland Section Historian

Dr. Dorothy J. Phillips, current president of the American Chemical Society and former Midlander, is the third person from Midland to hold that position. The first two presidents were Dr. Edgar C. Britton in 1952 and Dr. Thomas H. Lane in 2009. A previous article [reprinted in *The Midland Chemist*, **2025**, Vol. *62*, No. 2 (February), p 5-7; https://midlandchemist.org/Midland-Chemist-2025-62-02-February], written by *Midland Daily News* Managing Editor Dan Chalk, described some of the highlights of Dorothy's life thus far.

Dorothy worked at The Dow Chemical Company as a biochemist in Central Research from 1974 to 1983. While there, in one project, she collaborated with researchers at Michigan State University, Department of Animal Sciences, Altain V. Bondani and Robert M. Cook; and Jack M. Tadman of Dow. They presented a paper on "Effects of Teichomycin A_2 on the *IN VIVO* Rumen Fermentation," in a Symposium on New Developments in Biotechnology at Dow at the 39TH ACS Fall Scientific Meeting, October 29, 1983, Herbert H. Dow High School, Midland, MI (program booklet p. 37).

H2O Q Middle School Outreach Volunteer Opportunity

Dale LeCaptain, Councilor, Midland Section ACS

The annual H2O Q event with Midland Public Schools is in need of about a dozen volunteers to guide 7th graders as they explore water quality.

Opportunities include:

- Chippewa Nature Center (outdoors, 3-hour commitments, April 30 and/or May 7)
- Midland middle school science lab (indoors, 4-hour commitment, May 1 and/or May 8)

Additional details here se.cmich.edu/H2OQ

Sign up here Midland ACS Women Chemist Committee: H2O-Q Water Testing at CNC

Dale J LeCaptain
Professor | Department of Chemistry and Biochemistry | Institute for Great Lakes Research
Dow Science 350 | Central Michigan University

Dow Freeport Awarded ACS Landmark

Mark Jones, Director, Midland Section ACS

Dow awarded as National Historic Chemical Landmark for pioneering achievements

The Dow Freeport site recently was awarded a National Historic Chemical Landmark by the American Chemical Society for the production of magnesium from seawater. It is a process with roots in Midland.

In 1916, the company created its first small block of magnesium at a Midland, Michigan, pilot plant. The process electrolyzed a molten $MgCl_2$ bath producing magnesium metal and chlorine gas. The feedstock was a concentrated brine present under Midland. While $MgCl_2$ was present in the brine, so was NaCl. It was present at much higher concentration. In order to get pure $MgCl_2$, chemical processing was required. CaO was used to precipitate $Mg(OH)_2$. This was collected and reacted with HCl to make pure $MgCl_2$ for use in the electrolysis. By 1918, production of magnesium ingots reached almost 2 tons. Dow next sought to scale up its operation. To do so, it would have to move away from local brine to a virtually bottomless feedstock, seawater. It is the move to seawater and the large-scale production from seawater that is celebrated in the landmark.

Dow's Freeport seawater magnesium plant began operations in January 1941 — 11 months before the U.S. officially entered World War II. The process was an immediate success. Magnesium was critical to the war effort, as it was used in the production of aircraft. Within the next year, the U.S. government funded a second plant in Velasco, Texas, to increase production. Prior to WWII, the entire world produced about 32,000 tons of magnesium yearly; after the war, the Freeport process helped push this number to 232,000 tons. Dow's operation earned the honor of being named the "number one defense plant in the nation," according to the scientific journal Chemical and Metallurgic Engineering.

Dow produced 84% of the U.S.'s total output of magnesium in 1942. And the technology was cleaner than others. It was energy intensive, but less so than counterparts, and it produced relatively few undesired byproducts or emissions. The enormous scale of magnesium production allowed wider adoption of the shiny gray metal. Alloys, trademarked and marketed as DOWMETAL, were widely used.

Eventually, the demand for magnesium waned. Total U.S. production fell after WWII from a peak of 184,000 tons to just 15,700 tons in 1950. The cost of power rose, which tightened margins, although demand eventually rose again with the 1950s Korean War. Imported magnesium competed with seawater production beginning in the 1960s, causing the market conditions to deteriorate. In 1998, Hurricane Frances damaged Dow's Freeport facility. It was decommissioned and razed soon after, ending 57 years of production.

The awarding of the Landmark recognizes the development of this important process and facility. While gone today, the production of magnesium from seawater by Dow in Freeport changed the company, the community, and the world. It was a significant advance with its roots in Midland.

21st Annual MSU ChEMS Department Research Forum, May 6

MSU ChEMS Department, East Lansing

The Department of Chemical Engineering and Materials Science (ChEMS) at Michigan State University invites you to join us at the 21st annual ChEMS Department Research Forum on Tuesday, May 6, 2025. The forum is a full-day event, running from 8:30 AM to 4:30 PM, and will be held at the MSU Union, 49 Abbott Road, East Lansing, on the campus of MSU. This one-day meeting will feature invited plenary speakers, oral presentations from faculty and staff, and extended poster sessions describing the latest department research results.

Please note that this year's ChEMS Research Forum is being held much earlier in the year (May instead of August) than that of the past several Research Forum programs. Please also note that this year's ChEMS Research Forum is being held at a different location than that of the past several Research Forum programs.

The **21st Annual ChEMS Research Forum** will showcase departmental research advances in the areas of:

- Energy and Sustainability
- Nanotechnology and Materials
- Biotechnology and Biomedical Engineering

If you or your company shares an interest in chemical engineering and materials science, then this event offers a uniquely personal and informal view into the general research directions of the ChEMS department, its current research projects, and, most importantly, an opportunity to get to know the many talented graduate students that are at the heart of it all.

To see the full agenda for this day-long event, please go to 2025 ChEMS Research Forum.

Pre-registration for the forum is requested. Please register for the event at 2025 ChEMS Research Forum. For more information, call the MSU ChEMS Department at 517-355-5135, or send an inquiry by email to chems@egr.msu.edu.

Keynote Speakers

Marissa Beatty (left), Founder & CEO of Turnover Labs, Forbes 30 Under 30 in 2024
Xinyue Liu (right), ChEMS Assistant Professor, Forbes 30 Under 30 Asia in 2020.

Marissa Beatty, Founder & CEO of Turnover Labs, Forbes 30 Under 30 in 2024

From Breakthrough to Exit: A Guide to Hardware Startups for Academics and Students

Following initial discovery, there are multiple paths that researchers can take to scale and commercialize technical innovations. Pursuing a hardware startup is one strategy and requires strategic decision-making at every company stage. Successful hardware startups must navigate challenges including company formation, intellectual property licensing, and securing funding through grant support or venture capital. Several skills and resources are required at different company stages to ensure company growth, commercial adoption, customer acquisition, and venture backing. These required skills are frequently evolving as market and customer sentiments shift, making it difficult for first-time founders from academic backgrounds to access and absorb. However, understanding these challenges early and finding avenues for support is essential for transforming hardware breakthroughs into viable, scalable businesses. This talk will give an overview of the general path that hardware startups can take from initial discovery to company exit and cover key decisions and considerations founders should account for in their journey from lab to market.

Xinyue Liu, ChEMS Assistant Professor, Forbes 30 Under 30 Asia in 2020

Designing Polymeric Materials to Modulate Light and Mass Transport for Sustainability and Healthcare

In many chemical and biological systems, surface-limited reactions, characterized by inadequate energy and mass transfer, pose significant barriers to reaction efficiency. The uneven distribution of light, heat, catalysts, and reactants often confines these reactions to a thin surface layer, resulting in suboptimal kinetics and performance. This challenge is particularly pronounced in light-powered and diffusion-controlled processes. In this talk, I will first address the issue of inefficient photosynthetic biomanufacturing caused by limited light penetration in high-density algal cultures, where sunlight absorption is restricted to surface regions. To overcome this, we have developed hydrogel-based waveguides embedded with silica nanoparticles, leveraging both interfacial and bulk scattering effects to enable volumetric illumination. By integrating these light-scattering hydrogel fibers into algal cultures, we achieve deeper and more uniform light distribution, substantially enhancing biomass production rates under both indoor LED lighting and outdoor sunlight. Next, I will discuss our approach to addressing diffusion-limited biodegradation within solid hydrogel matrices. By applying controlled deformations to the hydrogel, we accelerate the mass transport of nano-sized biomolecules and nanoparticles. This promotes enzymatic degradation throughout the entire volume of the hydrogel, transforming the degradation mode from surface erosion to bulk erosion. Overall, these innovations in material engineering demonstrate the potential of hydrogels, and polymer networks more broadly, as versatile platforms for converting low-efficiency, surface-limited processes into high-efficiency, volumetric reactions.

Registration

Pre-registration for the forum is requested. Please register for the event at 2025 ChEMS Research Forum. For more information, call the MSU ChEMS Department at 517-355-5135, or send an inquiry by email to chems@egr.msu.edu.

2025 Turner J. Alfrey Visiting Professor Lecture Series, June 3

Karol Miller, Administrative Assistant, The Axia Institute, MSU St. Andrews, Midland

MSU St. Andrews is pleased to announce the 2025 Turner J. Alfrey Visiting Professor Lecture Series. Our guest lecturer this year will be Prof. Karen I. Winey, Harold Pender Professor of Engineering and Applied Science, Department of Chemical and Biomolecular Engineering, University of Pennsylvania.

Date: Tuesday, June 3, 2025 Time: 9:00 AM to 4:00 PM
Location: MSU St. Andrews, 1910 West St. Andrews Road, Midland
Guest Lecturer: Prof. Karen I. Winey

Prof. Karen I. Winey

About Karen Winey

Karen I. Winey is the Harold Pender Professor of Engineering and Applied Science with a 50:50 appointment between the Department of Chemical and Biomolecular Engineering and the Department of Materials Science and Engineering. Karen earned her Ph.D. in polymer science and engineering from the University of Massachusetts, Amherst, and joined the Penn Engineering faculty after a brief postdoc at AT&T Bell Labs. Karen has made significant contributions to the field of polymer science, particularly in the understanding of and manipulation of unique polymer nanocomposites and ion-containing polymers. She has a strong record of service including as an Associate Editor for *Macromolecules*, Chair of the Division of Polymer Physics within the American Physical Society, Department Chair of Penn's Materials Science and Engineering Department, and a variety of advisory boards.

Research Interests

The focus of the Winey research group is hierarchical and nanoscale morphologies in polymers and connecting these morphologies to the underlying chemical structure as well as the mechanical, thermal, and transport properties of the materials. We employ a variety of experimental and computational tools to probe the structural and physical properties of advanced polymers including X-ray scattering, electrochemical impedance spectroscopy, and time of flight SIMS. Targeting a variety of energy-related and membrane applications, we study and design functional polymers to improve selective ion and proton conductivity. In polymer nanocomposites, our current interests focus on nanoparticle dynamics across a range of time and length scales. Our newest project focuses on polymer-to-polymer upcycling to convert waste polyolefins to higher value polymers. Our dynamic and highly cited research group is currently funded by the National Science Foundation, the Department of Energy Basic Energy Sciences, and industry.

Dr. Hoda Shokrollahzadeh Behbahani

Dr. Hoda Shokrollahzadeh Behbahani

Accompanying Prof. Winey will be Dr. Hoda Shokrollahzadeh Behbahani. Hoda joined the Winey research group as a postdoctoral researcher after completing her Ph.D. in Chemical Engineering at Arizona State University. During her Ph.D. work, Hoda focused on developing innovative solutions to climate change and water scarcity. Her dissertation, titled "Polysulfones for Sustainability Related Applications," explored functionalized polysulfone-based polymers for direct air capture of CO_2 and the development of enhanced, greener desalination membranes. Hoda's research in the Winey group is focused on the characterization

of functional polymers derived from the upcycling of polyolefins, aiming to enhance sustainability and innovate material reuse.

- Lectures will take place in person at MSU St. Andrews, in Midland.
- Networking luncheon included from 12:30 – 2:00 PM in the MSU St. Andrews Rotunda, sponsored by the Midland Section of the American Chemical Society.
- Prof. Winey and her associate, Dr. Hoda Shokrollahzadeh Behbahani, will deliver five, 45-minute talks throughout the day.
- Time will be allowed for Q&A and discussion.

Registration is open now through Sunday, June 1, 2025, by clicking here.

This is a free event, but pre-registration is required to help plan for the networking luncheon. Please share information about this event with others that may be interested in attending. For more information, please contact Karol Miller at mill2785@msu.edu.

Agenda and Lecture Topics:

9:00 AM – Introduction and Housekeeping Items – MSU St. Andrews Staff

9:15 AM – Lecture #1 – Prof. Karen I. Winey
Nanoparticle, Segmental and Chain Dynamics in Polymer Nanocomposites.

10:15 AM – Lecture #2 – Prof. Karen I. Winey
Ionomers and the Impact of Precise Microstructures on Mechanical Properties.

11:15 AM – Morning Break

11:30 AM – Lecture #3 – Dr. Hoda Shokrollahzadeh Behbahani
Polymer to Polymer Chemical Transformations to Produce Specialty Plastics from Waste Polyolefins.

12:30 PM – Lunch Break
Lunch will be served in the MSU St. Andrews Rotunda with food provided compliments of the Midland Section of the American Chemical Society.

2:00 PM – Lecture #4 – Prof. Karen I. Winey
Ionomers and the Impact of Precise Microstructures on Transport Properties.

3:00 PM – Lecture #5 – Prof. Karen I. Winey
Proton Conductivity in Hydrated Fluorine Free Polymers.

4:00 PM – Closing Remarks – Robert Bubeck, MSU St. Andrews

This is a free event, but pre-registration is required to help plan for the networking luncheon. Please register no later than Sunday, June 1, 2025, by clicking on 2025 Tuner J. Alfrey Visiting Professorship Lecture Registration. Please share information about this event with others that may be interested in attending. For more information, please contact Karol Miller at mill2785@msu.edu.

Great Lakes Regional Meeting (GLRM 2025), June 4-6

Steve Keinath, Co-Editor, The Midland Chemist

Editor's note: The information contained in this article is reprinted, in part, from a National ACS email communication to all ACS members, dated January 23, 2025.

GLRM 2025 will be held from Wednesday to Friday, June 4 - 6, 2025, in Appleton, WI, hosted by the Central Wisconsin and Northeast Wisconsin Local Sections. **The deadline to submit an abstract is Monday, March 17.**

This year's theme is ***Chemistry for a Better Planet***. Chemistry has led to hundreds of innovative solutions over the last several centuries and it will continue to do so. Chemistry helps us gain a better understanding of the world around us, in all facets of life – health care, environmental science, and more. Chemistry and the planet are closely intertwined with one another and there are connections at all different levels and scales. With this theme, we hope to encourage curiosity and ingenuity to explore and discover all the possibilities that exist between the two.

Visit the website to find a list of the programming divisions and planned symposia open for submissions.

ACS Fall 2025 National Meeting & Exposition, August 17-21

Steve Keinath, Co-Editor, The Midland Chemist

Editor's note: The information contained in this article is reprinted, in part, from a National ACS email communication to all ACS members, dated January 8, 2025.

This in-person and digital meeting will be held in Washington, DC, and globally from August 17-21, 2025. Abstracts for virtual, in-person, and poster presentations for open symposia are being accepted by nearly 30 program divisions. **The deadline to submit an abstract is Monday, March 31.** Please see **ACS Fall 2025**.

This is your chance to share your research with the chemistry community. ACS Fall 2025 brings together chemistry professionals, educators, and students worldwide to discover and share research, network, and advance careers. These meetings are an excellent opportunity for professionals and students to showcase their work and connect with colleagues in all areas of chemistry. Visit the website to learn more about the symposia open for submission.

Upcoming Dates, Events, and Other Updates

- April 7 (7:00 – 8:30 PM) – Hybrid Midland Section ACS Board meeting, Rotunda Room, MSU St. Andrews, Midland (in person), and via a Microsoft Teams videoconference call connection at April 2025 ACS Board Meeting Teams Link, Meeting ID: 938 651 597 463 5, Passcode: FV2oA7.
- April 7 – **Deadline to submit online applications for the 2025 Great Lakes Bay Project SEED Internships program.** For more information, please see the associated program flyer on page 8. For any questions, please contact project-seed@midlandacs.org.
- April 12 – **Deadline for 2025 Illustrated Poem Contest submissions.** For more information, please see the associated program flyer on page 9. For any questions, please contact MidlandACSPoem@gmail.com.
- April 22 – **Registration deadline for the Midland Section ACS Spring Awards Recognition Banquet.** Register at Midland ACS Awards Committee: 2025 ACS Recognition Banquet (signupgenius.com) or by scanning the QR code on page 7. Please see the article on pages 6 and 7 for more details. Please contact Wendy Flory (wcflory@dow.com) or Tami Sivy (tsivy@svsu.edu) with any questions.
- April 30 – H2O Q Middle School Outreach Volunteer Opportunity, outdoors at Chippewa Nature Center. Please see the article on page 10 for details and registration link.
- April 30 (5:30 – 8:00 PM) – Midland Section ACS Spring Awards Recognition Banquet, Great Hall Banquet & Convention Center, 5121 Bay City Road, Midland. The cost of the dinner is $20.00 per person and includes dinner, dessert, and a non-alcoholic beverage. A pre-dinner cash bar will be available. Register to attend at Midland ACS Awards Committee: 2025 ACS Recognition Banquet (signupgenius.com) or by scanning the QR code on page 7. **Your dinner reservation request must be received by April 22, 2025.** For more information or any questions, please contact Midland Section ACS Awards Committee Co-Chairs Wendy Flory (wcflory@dow.com) or Tami Sivy (tsivy@svsu.edu).

- May 1 – H2O Q Middle School Outreach Volunteer Opportunity, indoors at Midland middle school science lab (Northeast Middle School). Please see the article on page 10 for details and registration link.
- May 5 (7:00 – 8:30 PM) – Hybrid Midland Section ACS Board meeting, Rotunda Room, MSU St. Andrews, Midland (in person), and via a Microsoft Teams videoconference call connection at May 2025 ACS Board Meeting Teams Link, Meeting ID: 938 651 597 463 5, Passcode: FV2oA7.
- May 6 (8:30 AM – 4:30 PM) – 21st Annual MSU ChEMS Department Research Forum, Michigan State University, MSU Union, 49 Abbott Road, East Lansing, MI. Please note that this year's ChEMS Research Forum is being held much earlier in the year (May instead of August) than that of the past several Research Forum programs. Please also note that this year's ChEMS Research Forum is being held at a different location than that of the past several Research Forum programs. Pre-registration for the forum is requested. Please register for the event at 2025 ChEMS Research Forum. For more information, call the MSU ChEMS Department at 517-355-5135, or send an inquiry by email to chems@egr.msu.edu.

- May 7 – H2O Q Middle School Outreach Volunteer Opportunity, outdoors at Chippewa Nature Center. Please see the article on page 10 for details and registration link.
- May 8 – H2O Q Middle School Outreach Volunteer Opportunity, indoors at Midland middle school science lab (Jefferson Middle School). Please see the article on page 10 for details and registration link.

- June 1 – **Preregistration deadline to attend the 2025 Turner J. Alfrey Visiting Professor Lecture Series** program, Tuesday, June 3, 9:00 AM – 4:00 PM, featuring Prof. Karen I. Winey from the University of Pennsylvania. Please register by clicking on 2025 Tuner J. Alfrey Visiting Professorship Lecture Registration. For more information or any questions, please contact Karol Miller at mill2785@msu.edu.
- June 2 (7:00 – 8:30 PM) – Hybrid Midland Section ACS Board meeting, Rotunda Room, MSU St. Andrews, Midland (in person), and via a Microsoft Teams videoconference call connection at June 2025 ACS Board Meeting Teams Link, Meeting ID: 938 651 597 463 5, Passcode: FV2oA7.
- June 3 (9:00 AM – 4:00 PM) – 2025 Turner J. Alfrey Visiting Professor Lecture Series program, featuring Prof. Karen I. Winey from the University of Pennsylvania. For more details, please see the article on pages 14 and 15. This is a free event, but pre-registration is required to help plan for the networking luncheon. **Please register no later than Sunday, June 1, 2025,** by clicking on 2025 Tuner J. Alfrey Visiting Professorship Lecture Registration. For more information or any questions, please contact Karol Miller at mill2785@msu.edu.
- June 4-6, 2025 (Save the Date) – 2025 Great Lakes Regional Meeting (GLRM), Appleton, WI, hosted by the Central Wisconsin and Northeast Wisconsin Local Sections. Meeting theme: *Chemistry for a Better Planet*. **The abstract submission deadline is March 17, 2025.** For more information, please visit the **GLRM 2025 website**.

- August 4 (7:00 – 8:30 PM) – Hybrid Midland Section ACS Board meeting, Rotunda Room, MSU St. Andrews, Midland (in person), and via a Microsoft Teams videoconference call connection at August 2025 ACS Board Meeting Teams Link, Meeting ID: 938 651 597 463 5, Passcode: FV2oA7.
- August 17-21, 2025 (Save the Date) – ACS Fall 2025 National Meeting & Exposition, Washington, DC. This meeting will be a hybrid in-person and virtual meeting. **The abstract submission deadline is March 31, 2025.** For more information, please see https://www.acs.org/events/fall.html.

- September 8 (7:00 – 8:30 PM) – Hybrid Midland Section ACS Board meeting, Rotunda Room, MSU St. Andrews, Midland (in person), and via a Microsoft Teams videoconference call connection at September 2025 ACS Board Meeting Teams Link, Meeting ID: 938 651 597 463 5, Passcode: FV2oA7. **Please note: This Board meeting is being held on the second Monday of September, not the usual first Monday of most months, due to the Labor Day holiday.**

- October 6 (7:00 – 8:30 PM) – Hybrid Midland Section ACS Board meeting, Rotunda Room, MSU St. Andrews, Midland (in person), and via a Microsoft Teams videoconference call connection at October 2025 ACS Board Meeting Teams Link, Meeting ID: 938 651 597 463 5, Passcode: FV2oA7.

- November 3 (7:00 – 8:30 PM) – Hybrid Midland Section ACS Board meeting, Rotunda Room, MSU St. Andrews, Midland (in person), and via a Microsoft Teams videoconference call connection at November 2025 ACS Board Meeting Teams Link, Meeting ID: 938 651 597 463 5, Passcode: FV2oA7.

- December 1 (7:00 – 8:30 PM) – Hybrid Midland Section ACS Board meeting, Rotunda Room, MSU St. Andrews, Midland (in person), and via a Microsoft Teams videoconference call connection at December 2025 ACS Board Meeting Teams Link, Meeting ID: 938 651 597 463 5, Passcode: FV2oA7.

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