

THE MIDLAND CHEMIST

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Chair Column

Erin Vogel, Chair, Midland Section ACS

This month I have the privilege of introducing you to one of our nine Directors for the Midland Section of the American Chemical Society, Angelar Muthike, a Senior Research Specialist at Dow.



My name is Angelar Muthike and I was born, brought up and partially educated in Wanzu Village, a small village in the rural areas of southeastern part of Kenya. Here, majority of the population depend on small scale farming and selling home-made beer as their main sources of income. Quite a number of the population must be chemists! In this village, almost 98% of the population lacks the most basic necessities like clean water, medical and dental care and electrical energy. Growing up, the only accessible energy was through solar panels, which is very expensive to install and inefficient because, due to the panels' low quality, they can only provide energy for a short period of time making it difficult for school children to study at home. The scarcity of these necessities eventually increased school dropout rates, escalated society insecurities, and amplified deaths from infectious diseases. Having to use open and inconvenient kerosene lamps to complete assignments; and witnessing the rampant health predicaments in my family and across the village made

alleviating health and advancing energy personal goals. However, without mentors and professionals to look up to, I was not sure how to accomplish these seemingly overambitious goals. The probability of accomplishing these goals seemed impossible especially after I was denied a chance to study Medicine in Kenya, even though I had scored an overall A, an equivalent of a 4.0, in my final high school examinations.

In retrospect, I won the only 2013 Zawadi presidential scholarship to Spelman College in Atlanta, Georgia, where I started my career in Biology, pre-med track. The summer after my freshman year is a pivotal time in my career, and the beginning of my research involvement. While I lacked enough STEM credits to secure any internship in my field, I needed something to keep me busy during the summer as I would stay on-campus. I knew there were professors doing research in Spelman and so I essentially went door to door, asking what kind of research they did. While STEM education research, understanding alterations in the configuration of the ocular lens structural proteins were intriguing, using light to study gas phase molecules was mind blowing!

I then joined Professor Peter Chen's research lab that summer and would do research under his mentorship for the rest of my undergraduate career. Here, we developed high resolution coherent 2- and 3-dimensional spectroscopy techniques that can resolve spectral congestion; enabling us to study molecular structures and chemical kinetics of gas phase molecules. Through Professor Chen's guidance, I would soon realize that although I was passionate about health, I did not have the strength to stay calm in emergency cases especially when blood was involved. I would probably cry with or on behalf of the patient. I also realized that I did not need to be a medical doctor to create impact in the medical world, I could do it through research! I also learned that pursuing a PhD was not for the older generation! And that there is a myriad of career opportunities for Chemistry PhDs, I thought the only option was to become a lecturer. That was the perception I had when I was in Kenya. My undergraduate research experience, coupled with a summer internship at MIT under the supervision of Professor Robert Field, an industrial research experience at Genentech Inc. under the mentorship of Dr. Sushant Malhotra, and scientific conference experiences solidified my new trajectory to pursue research as a career. In Professor Field's lab, I performed high-resolution spectroscopy to understand the origin of a long-lifetime visible fluorescence resulting from the first electronically excited singlet state of acetylene. At Genentech, my research was to determine whether non-precious metals could be used for both hydrometallation and cross coupling reactions. I knew that in order to advance my career in chemistry, I needed to improve my research skills through graduate school. I owe this change in trajectory to Prof. Peter Chen.

In 2017, I joined the University of Michigan chemistry department, and started my PhD under the guidance and supervision of Professor Theodore Goodson III. My research focused on using nonlinear spectroscopic techniques to investigate the optical properties of materials with advanced applications, mainly in solar energy and display systems. Looking at materials that had the potential to make better and more sustainable solar cells was personally fulfilling, and in a way, an achievement of my childhood dreams to advance both solar and electrical energy while making them affordable. Not sure how much my research has impacted the solar panels in my village yet, but my scientific findings were a huge step towards the development and design of lightweight, highly efficient, and affordable optoelectronic devices. I defended my dissertation "Investigating the Time-Resolved Spectroscopy of Singlet and Triplet State Dynamics in Conjugated Rylene and Quinoline Derivatives for Efficient Optoelectronic Systems" in March 2022, and immediately joined the optical spectroscopy group within the Analytical Sciences Core R&D function at the Dow Chemical Company. I must mention that I participated in the Dow BEST symposium in 2021, an experience that exposed me to the different science career growth opportunities within Dow.

In my role as an analytical chemist, I develop, enhance, or use existing optical laser spectroscopy and microscopy methods for various industrial material characterization. A typical day includes responding to emails or holding

meetings about new or ongoing projects, brainstorming the best analytical tools to use for specific project requests, performing lab experiments and data analysis. Sometimes, we have group lunches and walks to the farmer's market! It is not all technical. I am also the safety representative in my lab, making sure to create an environment that is safe for all the scientists to work in. I also co-chair the Dow Discussion Group on Interface Science, a group that brings external speakers to give seminars in the field of interfacial science to the Dow community.

And WHY a career in SCIENCE at Dow? It goes back to my childhood dreams to alleviate health and advance energy technologies, both of which could be achieved through research. As one of the leading chemical companies in the world, Dow 'is working to address challenges facing the healthcare and hygiene industries' and is driving 'silicone solutions for renewable energy component protection' and sustainability efforts. As we continue to make new materials or improve on the existing ones to push these efforts, my expertise to characterize them comes in handy. As such, some of these materials have ended up in my list of materials to characterize and provide recommendations. As I look forward to continuing to create impact in the sustainability and health space, I realize that in small steps, I am completing the circle that goes back to my childhood seemingly impossible dreams, and that has only been possible through a career in science.

I am a big advocate of STEM through informal mentorships and participation in K-12 outreach programs. Outside my role in the ACS Local Section Board, I serve as the Vice President of the Midland Professional Chapter of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE), as well as a trustee in the Precious Sisters Charity Organization (a UK-Kenyan Charity). Both of these organizations seek to support the next generation of scholars by giving them the opportunities and the mentorship they need to thrive. I believe that effective mentorship and early exposure to various STEM exercises is a great way to combat chemophobia in our society.

If I am not doing any of the above, you will find me working out in the East End gym, practicing martial arts at the Midland Gracie Jiu-Jitsu, playing volleyball in Stratford Woods on a nice Monday evening, camping somewhere up-north, nervously polishing my bicycle-riding skills around my neighborhood, calmly reading a book in my house or in a hammock, taking care of my house plants, excitedly playing board games with friends or testing out different cocktails in downtown, or even enjoying sandy beaches or beautiful skylines somewhere flights away.

Official Recognition for 2023 Midland ACS Programs!

Hunter Woodward, Past Chair, and Gina Malczewski, Director and Outreach Committee, Midland Section ACS

The ChemLuminary Award Nominations for Local Sections have been published for 2023, and Midland ACS has been named in THIRTEEN categories! The specific nominations are named in the table below; winners will be announced at the ACS National meeting in Denver on August 20. Following a poster session, with all nominated sections highlighting their activities, the ceremony will include presentations by the 21 committees of the Society. This year's theme is "**Elevating the Dedication of Our Volunteers**" and our Section will be represented by a number of in-person attendees. (Watch the Midland ACS Facebook page for on-the-spot postings!)

Whatever happens, the Section is very proud of our wonderful volunteers and the quality of our programs. We are nominated for our 13th consecutive "Outstanding Section" award in our size category, a truly historical run!

Midland ACS ChemLuminary Nominations 2024 (for 2023)

Category/Award	2023 Event/Activity Nominated
Best Activity or Program Stimulating Member Involvement	Fall Scientific Meeting
Best Continuing Senior Chemists Activity within a Local Section	Activities at the Centennial Exhibit: Student Tours, Frankenstein Friday, and New Mole Display
Best Event or Activity Organized by, or Benefitting, the Applied Chemical Technology Professional Community	MMTG: Bee Activities at the Farmers' Market
Best New Public Relations or Communications Program for a Local Section	Facebook CCEW Campaign (Info on Algae) that was also used for passport program at Earth Action Expo
Best Overall Local Section Minority Affairs	Ten D&I Activities, including seminars, social events and "A Day in the Life of an Industrial Scientist"
Most Creative and Innovative Use of the CCEW Theme	Earth Action Expo activities, School Programs about Algae, and Food Science Café "Scrumptious Seaweed" with Chefs from the Detroit Institute of Gastronomy
Most Creative NCW Celebration Using the Yearly Theme	Halloween Bash at MCFTA, and Frankenstein Friday at CMU—featuring many activities related to the theme "The Healing Power of Chemistry" including buffering power of Alka Seltzer, microbiology of antibiotics, the chemistry of sutures and give-away stitch tattoos
Outstanding Continuing Public Relations or Communications Program of a Local Section	H2O Q Outreach
Outstanding Engagement with K-8 Students	Over 50 programs/classes for students in Grades 2 to 8
Outstanding Project SEED Program Award – Small Site	Research experiences for ten students, monthly meetings, professional development, volunteering industry tours and a final dinner
Outstanding Sustainability Activities	Earth Action Expo and waste collection there; Green Club at Bay City Western with recycling presentations and herb garden there. Sustainability event in October, SCS garden and food donations
Outstanding U.S. National Chemistry Olympiad	
Outstanding Performance by a Local Section – Medium Small Size Category Award	ALL THE ABOVE, and more!

Look for the ACS Booth at River Days, Saturday, August 3

Gina Malczewski, Director and Outreach Committee, Midland Section ACS

If it's the first weekend in August, it's time for the Midland Area River Days Festival! See the full River Days schedule of events at [Schedule — River Days \(riverdaysmidland.com\)](https://riverdaysmidland.com).

The Midland Section ACS Outreach Committee will once again have a booth in the Kids Zone at River Days. Our volunteer time block has been shortened by one hour this year. We will be doing "Bubble-ology" from 10:00 AM to 3:00 PM on Saturday, August 3, 2024.

Come join our adventure in all things related to gases surrounded by films – Bubbles. We will do bubble art, there will be giveaways, and everything is free!

If you have any questions, or to volunteer to help at the ACS booth, please contact Gina Malczewski at reginamalczewski@gmail.com.



FREE
Open to the Public

**Near the Tridge:
Downtown Side**

**JOIN the
Midland Section of
the American
Chemical Society**
at the River Days
KIDS ZONE

**Saturday, August 3, 2024
10 AM to 3 PM**

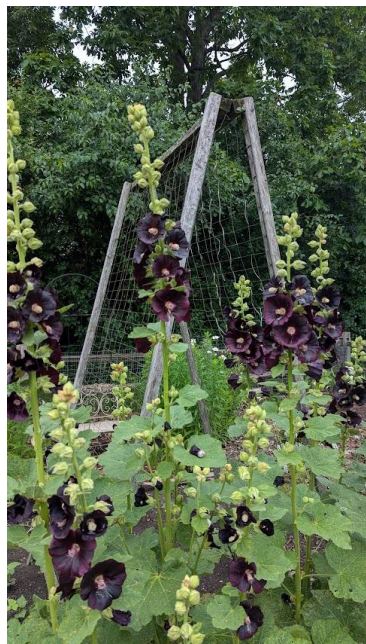
STEAM Activities: "Bubble-ology"

- Bubble Composition and Behavior
- Special "Bubbles"
- Bubble Art

How do our Gardens Grow? Come See!

Gina Malczewski, Director and Outreach Committee, Midland Section ACS

For the second year, we are managing the Community Garden at Creative 360, now located at 5501 Jefferson Avenue, Midland. Last season, the first at this new location, started late and was full of initial improvements to the space, which had many weeds and “wayward” plants, no compost piles, and a rabbit problem (despite perimeter fencing).



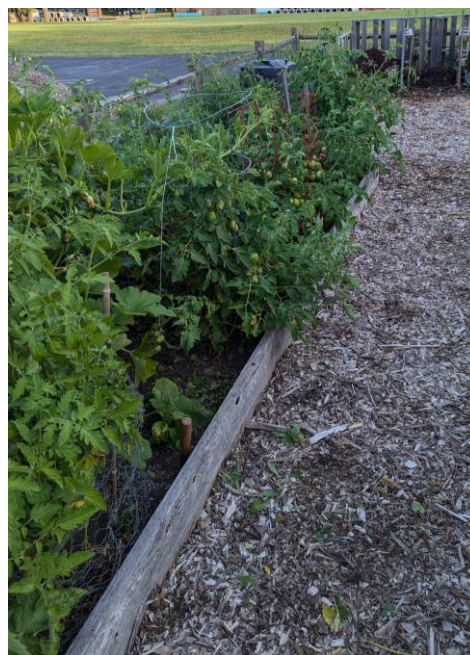
*Dark purple Hollyhocks (dye plants)
in June at the ACS Children’s Garden
Photo: Gina Malczewski*

Our vegetable plants include cucumbers, yellow squash, acorn squash, zucchini, green beans, pumpkin, peppers of various kinds, lettuce, kale, romaine, basil (three types), eggplant, pumpkins, celery, mint, rhubarb, and tomatoes (of course!). Several drop-offs have already been made to multiple donation spots, including SAMS Emergency Food Pantry Network and Care Giving Network.

I am also leading the garden effort for Bay City Western Middle School Green/Science Club, where herbs, pumpkins, and several vegetables are planted.

This year we have the same gardeners (and a new one), and we have worked hard to establish weed barriers, address the animal issue, and once again install automatic watering. With some help from the weather, all plots are green and every available nook and cranny has a pot or a plot where something is growing. We have a three-stage compost system and wood chips left over from a generous haul provided by a tree specialist who works for the city. ACS does not pay for our plots given our leadership, and we also make sure all plots are planted. This year, we were donated plants by an independent home gardener and by Assumption Parish, which had leftovers from the establishment of its garden. Plants started from seed were transferred to hydroponic units at MSU-St. Andrews, and then to plots at Jefferson. A few plants were purchased (for variety).

The “Children’s (Teaching) Garden” hosts many perennials from last year, including herbs, pollinator plants (phlox, black-eyed Susans, yarrow, hollyhocks), and others. We also have marigolds, sunflowers, zinnias, coreopsis, and sunflowers throughout the space...



*Tomatoes, squash, herbs, and
compost bins in back, late July
Photo: Gina Malczewski*



Bay City Western School garden

Photo: Gina Malczewski

If you have extra home produce to donate, or wish to volunteer at the Jefferson garden, please contact me at reginamalczewski@gmail.com. Otherwise, you are free to visit the garden, look for/join in our garden-related programs (SEE THE FLYER FOR AUGUST 29!), or come to the Board meeting at the Garden on August 5.

An Urge for HERBS, Thursday, August 29

Gina Malczewski, Director and Outreach Committee, Midland Section ACS

An Urge for HERBS!

A Sprouts and STEMs Program Activity brought to you by the Midland ACS Garden



Learn about Herb Chemistry:
Are herbs medicinal?
What are they used for?
Dried vs Fresh

Make a TAKE HOME sachet

FREE Dried Herbs

FREE and Open to the Public...
but registration **IS REQUIRED (limit of 40)**
6 to 7 pm Thurs Aug 29, 2024
St. John's Episcopal Church
Griswold Center
405 N Saginaw Rd, Midland, MI 48640



← **Register Here**
or at the link below

<https://www.signupgenius.com/go/70A054BADAA2FA20-50506622-2024>

Recommended for ages 8 and up.



- Make your own veggie pizza with our fresh herbs, all materials provided. Then we BAKE!
- Drink herbal teas!
- Salad from garden produce!



ACS
Chemistry for Life®
AMERICAN CHEMICAL SOCIETY

Microplastics Misinformation in the Meme Age: A Cape Cod Science Cafe

Jennifer Maclachlan, Cape Cod Science Cafe Co-Founder



Jennifer Maclachlan, Cape Cod Science Cafe Co-Founder
Managing Director, PID Analyzers, LLC
Councilor, Northeastern Section ACS
Past Commodore, Wequaquet Lake Yacht Club

Mark Jones and I go way back in ACS circles. We make it a point to grab lunch and catch up at ACS National Meetings to brainstorm ways to innovate and collaborate on informal science education and outreach events. Sometimes these are ACS-sponsored events like National Chemistry Week, or the American Association for the Advancement of Science (AAAS) workshops or in this case, a Northeastern ACS (NESACS) Cape Cod Science Cafe summer event. It was at Mulate's in New Orleans at the Spring ACS Meeting when we chose the date July 9th for the 'Microplastics Misinformation in the Meme Age' science cafe. It was brilliant! Mark would be vacationing



on Cape Cod and I'm always seeking compelling science cafe speakers on weeknights in the summer season, especially on Tuesday evenings when I tend bar at the Wequaquet Lake Yacht Club.



The Cape Cod Science Cafe was founded in 2011 by my father and business partner, Dr. Jack Driscoll, and myself with some International Year of Chemistry (IYC2011) Local Section Activities Committee science cafe seed funding. We continue to get funding from our local ACS section, Northeastern ACS (NESACS) and our company, PID Analyzers, LLC to produce Cape Cod Science Cafe branded events. Since 2011, we've held about 3-4 of these per year featuring guest lecturers from the local Cape Cod/NESACS area professionals, educators and experts as well as ACS friends and colleagues we've met nationally at ACS through various activities including meetings, Committees and Divisions. For the last five years I've been exclusively hosting the Cape Cod Science Cafe talks for adults at the Wequaquet Lake Yacht Club and have grown a little following of 'science cafe enthusiasts' amongst the many mariners on really popular topics such as the science of shipwrecks, the future of manned space flight, the science of home distilling, and coming later this month; FRANKly Speaking about Sharks.



During the member season (Father's Day to Labor Day) all events are for members and their guests only, so we already know that it is going to be a more intimate event, plus the 'Microplastics Misinformation' topic is pretty specific so I'd planned to host this event in the cozy aged 21+ 'Sunfish Lounge'. We had a few folks show up with

July 9, 2024

Wequaquet Lake Yacht Club
150 Annabelle Point Road
Centerville, MA



Northeastern Section
American Chemical Society

Tuesday July 9th

PID
ANALYZERS



Microplastics
Misinformation
Science Cafe
Doors: 5pm
Taco Bar @
5:30pm-6:30pm
Evening Lecture:
6:30-7:30pm

Microplastic Misinformation in the Meme Age
by Mark Jones **RSVP: bit.ly/MMSciCafe**

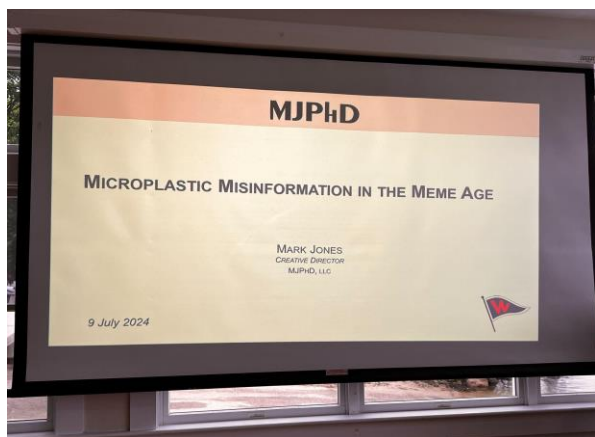
Most have heard we consume 5 grams of plastic per week. That is the weight of a credit card's worth of plastic hiding in our food as microplastics. Many will recall the picture of a credit card between two chopsticks. I saw that image and immediately had my doubts. Creating the thought that each bite contained a credit card's worth of plastic – 5 grams – clearly was intentionally misleading. A little digging showed how misleading it is. Actual consumption is about a million times lower, only micrograms per week. The story of how 5 grams per week became accepted, how it is driving litigation, UN treaties and public sentiment is an interesting one. It is a story that raises doubts about whether science is working, or at least whether it is working fast enough. I'll examine the modeling errors, how the erroneous result spread, how few paused for a reality check, and how subsequent measurements in peer-reviewed papers failed to change the perception. I'll also predict you'll never pick up a water bottle again without looking for microplastic particles.



kiddos, so we pivoted and held the event in the Lakeside room, which is equipped with a projector as well as stunning views of the lake and the rows of pontoon boats, Boston whalers, and jet skis that make up the mooring field. One of the neatest things about this venue is that we can size up or down on the fly, depending on how many folks show up. We've got use of a commercial kitchen onsite, we bring our experienced food preparation team in to cook, in this case, the taco bar, and we have a full bar onsite for purchase of alcoholic beverages.

Attendance for this event ran just shy of thirty which makes for meaningful Q&A throughout the presentation and an overall interactive experience.

We promoted this event by listing it on the club calendar, taping the flyer up on the ‘flyer window’ at the club, sharing the flyer on the private club Facebook group, using the eblast and robo-call systems to get the word out to the membership.



According to one attendee, “Mark’s talk was incredibly accessible to the audience, and he addressed the Microplastics Misinformation topic like a middle-school teacher, in a good way”. Another attendee sent me a thank you email with a link to an article that “would have freaked [her] out if [she] hadn’t attended Mark’s talk and now, thankfully, has a better understanding of the impact that microplastics misinformation plays in the media”. Other science cafe frequent attendees raved about what an excellent speaker Mark is and how much they learned. Additionally, numerous folks confirmed that the membership appreciates attending dinner events with an intellectual component to them. While

this particular event was definitely geared toward a general public audience, the Cape Cod Science Cafe also organizes technical lectures under the Cape Cod Science Cafe branding for the Southeastern Massachusetts area of NESACS for NESACS members and the local scientific community.



Planning a trip to Cape Cod and have a science cafe talk idea? Send me a message and let’s connect!

Jennifer Maclachlan

pidgirl@gmail.com

Get Linked-In with me: [linked-in.com/in/jenniferlmaclachlan](https://www.linkedin.com/in/jenniferlmaclachlan)


Lunch and Learn – Developing Sustainable Materials, August 27


Krishnaja Duvvuri, Chair-elect, Midland Section ACS

Please join us for an ACS Midland Section Lunch & Learn event, *Developing Sustainable Materials: FrothPak™ Spray Foams and Beyond*, presented by Megan Thomas, Ph.D., at MSU St. Andrews in Midland.

Additional event details are included on the flyer below.


[RSVP here](#)



ACS Midland Section - Lunch & Learn 

Developing Sustainable Materials: FrothPak™ Spray Foams and Beyond

Abstract: Buildings account for roughly 40% of global greenhouse gas emissions and DuPont is committed to developing products that enable the reduction of both embodied and operational carbon. DuPont's Froth-Pak™ branded low pressure, two-component spray polyurethane foam products are used to seal and insulate various spaces within the building envelope. These products have undergone a transition out of high global warming potential (GWP) blowing agents. The new innovative blowing agent solution for Froth Pak™ Spray Foams has shown to be a promising and stable solution, maintaining superior air sealing and insulating properties while offering a significant reduction in greenhouse gas emissions (GHG). Aspects of sustainable innovation and ongoing research will be discussed here.



Speaker Biography:
Megan Thomas received her Ph.D. in Organic Chemistry at Northwestern University in 2012 after obtaining her Bachelors of Science from Saint Mary's College Notre Dame in Chemistry and Mathematics. She joined The Dow Chemical Company as a chemist in Dow Building Solutions in 2012 and transitioned with the business to DuPont in 2019. Her focus is on developing and improving sustainable one- and two- component polyurethane foam products. She was the leading chemist on the development and transition of our Froth-Pak™, Tile Bond™, and Insta Stik™ polyurethane products to lower global warming potential formulations – work that has gained recognition for DuPont through several awards. In her spare time, Megan likes to hike, climb, write, and ride horses, and she tries to bring her lovely children along when possible.

*Tuesday, August 27th, MSU St. Andrews
Lunch 11:30 am onwards ([RSVP here](#))
Seminar 12 pm-1:00 pm.*



Call for Abstracts for CERM 2024, August 11 Submission Deadline

Kevin Noonan and Kimberly Woznack, CERM 2024 Technical Program, Pittsburgh Section ACS

Editor's note: The information contained in this article is reprinted, in part, from material provided in an email message posted to all ACS members, dated June 26, 2024.



Central Regional Meeting

The Confluence of Chemistry: Past, Present, & Future
November 6–9, 2024 | Pittsburgh, PA

The Pittsburgh Section of the ACS is proud to host the [54th Annual Central Regional Meeting \(CERM\)](#). This year's theme focuses on the **"Confluence of Chemistry: Past, Present, & Future"** and will highlight the chemist of the past, present-day discoveries, and the outlook of chemistry in the future.

Submit your abstract for symposia and poster sessions to help us honor and celebrate the history and future of chemistry with our regional chemistry community in Pittsburgh and beyond.

Visit the website to find a list of the programming divisions and planned symposia open for submissions. **The deadline to submit an abstract is Sunday, August 11.**

ACS Fall 2024 Meeting and Exposition, August 18-22

Steve Keinath, Co-Editor, *The Midland Chemist*

Editor's note: The information contained in this article is reprinted, in part, from material provided in email messages posted to all ACS members, dated March 5, May 16, and July 18, 2024.



ACS Meetings & Expositions bring 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.

Register and join us from August 18 - 22 for ACS Fall 2024! We'll be in-person in **Denver, CO** at the **Colorado Convention Center** or virtually across the globe. The meeting theme, **Elevating Chemistry**, will be at the core of programming for the hybrid event. The **Schedule Overview** is available for you to explore the overall meeting schedule.

Check out **Keynote Events**, **Career Development Courses**, **Student Programming**, and the **Industry Recommended Program**. You can also find **Career Navigator LIVE!** and **ACS Booth** at the **Expo**.

Discover ACS Fall 2024's sustainability initiatives, venues, and vendors focusing on energy, reducing plastic waste, saving fuel, and conserving trees. ACS is demonstrating a commitment to being more sustainable! **Learn more about sustainability initiatives & partners.**

Join Us Virtually – Global Virtual Symposia is a programming opportunity for presenters and attendees to participate in ACS Fall 2024 virtually at the convenience of their own time zone. While in-person participants and general programming will be set to local time in Denver, CO, select symposia will be set to daytime hours in Asia, Africa, Europe, the Middle East, and Latin America. Global Reach, Local Time! Click here to **Learn More**.

20th Annual MSU ChEMS Department Research Forum, August 23

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 20th annual ChEMS Department Research Forum on Friday, August 23, 2024. The forum is a full-day event, running from 8:30 AM to 5:30 PM, and will be held at the Spartan Stadium Tower, 325 West Shaw Lane, East Lansing, on the campus of MSU.

The 20th annual ChEMS Research Forum will showcase department research advances in the areas of:

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

The one-day program will feature invited plenary speakers, oral presentations from faculty and students, and an extended poster session describing the latest department research results. While the oral presentations of the program can be joined remotely via Zoom, all poster presentations are in-person only.

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. Parking next to the Spartan Stadium is free and we hope to welcome you to MSU on August 23!

Keynote Speakers:



- **Stephen LeBeau** – nanoMAG LLC, Livonia, MI
- **Michael Hickner** – Chemical Engineering & Materials Science, Michigan State University
- **Jodie Lutkenhaus** – Chemical Engineering, Texas A&M University
- **Chengcheng Fang** – Chemical Engineering & Materials Science, Michigan State University

The full agenda for this forum will be available later this summer. Please watch for updates at [2024 ChEMS Research Forum](#).

Pre-registration for the forum is requested. Please register for the event at [2024 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.

Water Quality Weekend Adventure, September 13-15

Dale LeCaptain, Councilor and H2O Q Outreach Committee, Midland Section ACS



Water Quality Weekend Adventure Beaver Island, Michigan

September 13 – 15, 2024

The ACS Midland Local Section H2O Q Outreach Committee invites YOU to explore freshwater chemistry testing and the H2O Q volunteer experience!

- **Learn about ACS classroom volunteer opportunities!**
- **Network with ACS colleagues**
- **Enjoy the natural freshwater beauty of Beaver Island**

Click on [ACS H2O Q Volunteer Training Adventure Registration \(google.com\)](#) for more details and to complete the online registration process!

ACS H2O Q Volunteer Training Adventure Registration

Dale LeCaptain, Councilor and H2O Q Outreach Committee, Midland Section ACS

Sign Up to Volunteer for the ACS H2O Q Beaver Island Adventure

Dates: September 13-15, 2024

Location: Central Michigan University Biological Station - Beaver Island

Contact us: (989) 774-3982 or esch1pa@cmich.edu

H2O Q is a regional outreach experience for sharing environmental water chemistry with teachers, students, and everyone wanting to study the chemistry of water quality. Several middle and high schools throughout Michigan utilize the material to help students learn about their local environment and contribute to data collection.

The ACS H2O Q Volunteer Training is part learning about water quality and part adventure. Sponsored by the Midland Section of the ACS, it's a 3-day, 2-night excursion to the Central Michigan University Biological Station (CMUBS) at Beaver Island. Participating in the adventure is a great way to learn about the program and get Fired Up about volunteering for H2O Q classroom experiences during the school year.

Schedule for the ACS H2O Q Volunteer Training Adventure

Friday, September 13 – Travel to Charlevoix, ferry or fly to Beaver Island. Programming starts with dinner at 5:30 PM at CMUBS. After settling into the sleeping quarters, there will be meet and greet and orientation that evening.

Saturday, September 14 – Breakfast at 8:00 AM, quick science explanation of H2O Q and first adventure to the south of Beaver Island. There will be a picnic lunch at one of the beaches. The adventure continues after lunch with an excursion to St. James and the northern portion of the island. The evening wraps up with pizza back at CMUBS and an evening social.

Sunday, September 15 – Breakfast once again, an opportunity to learn about schools doing H2O Q, and planning for your next steps to engage with the program. Pack up and head home via ferry (11:20 AM) or flight (TBD).

NOTE: This adventure is open to ACS members and their immediate family. We ask that all family members who are eligible to be ACS members to please register separately. Non-qualifying significant others and children are welcome to attend but will be billed as individuals under the registering ACS member.

Click on [ACS H2O Q Volunteer Training Adventure Registration \(google.com\)](#) for more details and to complete the online registration process!

Upcoming Dates, Events, and Other Updates

- August 3 (10:00 AM – 3:00 PM) – Midland Section ACS Outreach Committee “Bubble-ology” demo booth activity, part of the Midland Area River Days Festival, Kids Zone area, downtown Midland. See the full River Days schedule of events at [Schedule — River Days \(riverdaysmidland.com\)](#). For any questions or to volunteer to help at the ACS booth, please contact Gina Malczewski at reginamalczewski@gmail.com.
- August 5 (7:00 – 8:30 PM) – Hybrid Midland Section ACS Board meeting, Gallery at Creative 360, 5501 Jefferson Avenue, Midland (in person), and via a Microsoft Teams videoconference call connection at [August 2024 ACS Board Meeting Teams Link](#), Meeting ID: 939 576 147 515 1, Passcode: A52hAT. **Please note the location change of this Board meeting only from the more usual MSU St. Andrews meeting site.**
- August 11 – **Deadline to submit an abstract for CERM 2024, Pittsburgh, PA, November 6-9, 2024.** Meeting theme: “Confluence of Chemistry: Past, Present, & Future.” For more details and to access the abstract submission portal, please visit [CERM 2024](#).
- August 18-22, 2024 – ACS Fall 2024 National Meeting & Exposition, Denver, CO. This meeting is being planned as an in-person and virtual hybrid meeting. Meeting theme: *Elevating Chemistry*. For more information, please see [ACS Fall 2024 - American Chemical Society](#).
- August 23 (8:30 AM – 5:30 PM) – 20th Annual MSU ChEMS Department Research Forum, Michigan State University, Spartan Stadium Tower, 325 West Shaw Lane, East Lansing. Pre-registration for the forum is requested. Please register for the event at [2024 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.
- August 27 (11:30 AM – 1:00 PM) – ACS Midland Section Lunch & Learn, *Developing Sustainable Materials: FrothPak™ Spray Foams and Beyond*. MSU St. Andrews, Midland. See flyer in this newsletter for details and a link to register.
- August 29 (6:00 – 7:00 PM) – An Urge for HERBS! A Sprouts and STEMs Program Activity. St. John’s Episcopal Church, 405 N. Saginaw Road, Midland. FREE and open to the public; registration is required. See flyer in this newsletter for additional details and to register.

- September 9 (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 2024 ACS Board Meeting Teams Link](#), Meeting ID: 939 576 147 515 1, Passcode: A52hAT. **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.**
- September 13-15, 2024 – Water Quality Weekend Adventure and ACS H2O Q Volunteer Training, Central Michigan University Biological Station, Beaver Island. First come, first served opportunity for ACS members and their families. For more information, please see the accompanying articles on pages 11 and 12. Please click on [ACS H2O Q Volunteer Training Adventure Registration \(google.com\)](#) for more details and to complete the online registration process. For any questions, please call 989-774-3982 or send an email note to esch1pa@cmich.edu.
- October 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 [October 2024 ACS Board Meeting Teams Link](#), Meeting ID: 939 576 147 515 1, Passcode: A52hAT.
- November 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 [November 2024 ACS Board Meeting Teams Link](#), Meeting ID: 939 576 147 515 1, Passcode: A52hAT.
- November 6-9, 2024 – ACS Central Regional Meeting (CERM 2024), Pittsburgh, PA. Meeting theme: “Confluence of Chemistry: Past, Present, & Future.” **The deadline for submitting an abstract is Sunday, August 11.** For more details, please visit [CERM 2024](#).
- December 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 [December 2024 ACS Board Meeting Teams Link](#), Meeting ID: 939 576 147 515 1, Passcode: A52hAT.

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Volunteer Staff

Vickie Langer
Steve Keinath
Mike Malczewski

Editor (vlanger@dow.com)
Editor (skeinath54@charter.net)
Webmaster (web@midlandacs.org)

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