

THE MIDLAND CHEMIST

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Reflection on 2021 Midland Section ACS Activities

Robbyn Prange, 2021 Chair, Midland Section ACS



Editor's note: The material in this article was part of the 2021 Annual Report's Chair Summary. A highlight video of 2021 activities has been posted on the Midland Section [website](#). Look for the PowerPoint slide deck video titled "Midland Section Highlights from 2011." A Facebook [posting](#) has also been released.

The Midland Section was unstoppable in 2021, with over 4,500 volunteer hours driving 90+ events which 1,400+ people attended – achieving more exposure to chemistry while enjoying and engaging in their community. These efforts are a testament to our devotion to the ACS and our key priorities of outreach, education, and membership. How did we do it? By delivering!

Our volunteers led new efforts, reignited older programs, celebrated 30 years of our Mid-Michigan Technician Group (MMTG), engaged with school children, and honored our volunteers. From revamping our website to writing grants to driving diversity to engaging with kids, ... we managed to not only grow gardens but grow interest in STEM through multi-faceted community outreach, public participation in learning, and celebration of chemistry in everyday life. Our members also wrote grant applications in 2021 resulting in over \$6,000 in ACS grants and a \$10,000 grant from the Dow Foundation.

We continued to engage in educational outreach and partnerships. A few examples of these pillar programs for the Midland Section ACS include: (1) ACS-Creative 360 Garden Project and corresponding events highlighting the science of nature; (2) Chemists Celebrate Earth Week (CCEW), including Earth Day Expo showcasing how “Reducing Our Footprint with Chemistry” is possible; (3) H2O Q Water Quality in the Great Lakes Bay Region, engaging thousands of middle schoolers and their teachers in one of the largest water-testing experiments around; and (4) Science Coaching and other in-class engagement driving relationships with teachers and exposing numerous students and Girl Scouts to science through fun experiments.

We leveraged new volunteers to drive membership outreach and exposure. Our Minority Affairs team efforts were impressive in this area, hosting several events highlighting LGBTQ+, Black chemists, and other diversity segments in science.

We celebrated chemistry through new public relations programs like “365 Days of Chemistry” with daily social media posts on science in everyday life; volunteer appreciation with ACS-branded gifts that volunteers could use or display publicly; and a celebration of the Mid-Michigan Technician Group’s 30th Anniversary featuring dinner and remarks from Dow’s CTO, A.N. Sreeram. We also continued the monthly publication of the *Midland Chemist* newsletter and hosted public gatherings like pumpkin carving, trivia night in the park, pizza in the garden, and other events that highlighted the fun to be had while learning and making an impact.

A key to this success, I believe, is the balance of years of service to the society and years of active volunteering. Examining the age demographics of our elected officials gives an indication of how well balanced we are. Of the 17 elected officers and board members in the Midland local section, five are under age 40, six are aged 40-49, two are aged 50-59, and four are over age 60. Our volunteers reflect these balanced age demographics as well.

As the 2021 Midland Section Chair, I was amazed and humbled by what our volunteers accomplished. My thanks to all who contributed to the Midland Section's past year of impressive positive impact.

R&D/TS&D Technician Position Openings in Midland ***Hunter Woodward, Chair-Elect, Midland Section ACS***

We have an exciting opportunity for a couple of R&D/TS&D Technician positions located in Midland, MI. The roles are in Analytical Science, Core R&D, in Michigan Operations. We are an integrated Research & Development and Manufacturing & Engineering partner accelerating Dow’s business success through excellence in measurement science.

We have two technician roles to fill. One is targeted to join our Electrical Characterization research team. The other is to join our Rheology research team.

The R&D/TS&D Technician provides basic technical support to Lead Scientists and Technologist Leaders in the preparation and execution of experimental activities and studies. The role provides technical support for product development, application development, technical service, and/or product or process research.

For more information, please see <https://corporate.dow.com/en-us/careers/jobs/position.R2028487>.

2022 Central Regional Meeting of the American Chemical Society

Vickie Langer, Co-Editor, *The Midland Chemist*

Editor's note: This article is reprinted, in part, from the January 27, 2022, issue of the online *ACS Industry Matters* newsletter, a publication of the American Chemical Society.

The Huron Valley Local Section is hosting the 2022 Central Regional Meeting of the American Chemical Society, June 7-10, 2022. This four-day event will take place at Eastern Michigan University's Student Center.

ACS Regional Meetings feature technical programming to help you stay up to date on the latest research and keep you connected with chemists in your region.

Registration opens March 21, 2022. Visit the meeting website to find a list of the programming divisions and planned symposia open for submissions: [2022 Central Regional Meeting](#).



ACS Fall 2022 National Meeting – Sustainability in a Changing World

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

Editor's note: This article is reprinted, in part, from the January 18, 2022, issue of the online *ACS Matters* newsletter, a publication of the American Chemical Society.



NOW ACCEPTING ABSTRACTS FOR ACS FALL 2022

[Submit your abstracts](#) for oral and poster presentations for ACS Fall 2022. The meeting theme, "Sustainability in a Changing World," will be the core of programming. Sessions for the planned hybrid meeting will be held in Chicago, IL, and virtually, August 21-25, 2022. Those who wish to submit an abstract will have the option of selecting a virtual or in-person presentation format during the abstract submission process.

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. While ACS Fall 2022 is planned as a hybrid event, we continue to carefully monitor the situation relative to the COVID pandemic and its potential impacts on the meeting.

Please visit the [meeting website](#) to find a list of the programming divisions and planned symposia that are open for submissions. **The deadline to submit abstracts is Tuesday, March 29, 2022.**



The Race to Reopening the Midland Section ACS Centennial Exhibit!

Gina Malczewski, Director and Centennial Exhibit Committee, Midland Section ACS



Much progress has been made at the site where we are expecting to re-display the **Midland Section's Centennial Exhibit from 2019 ("A Century of Science and Service")** – Rowe Hall on the campus of Central Michigan University (CMU). We have a strong collaboration with the CMU Museum Studies group, which is renovating the space to accommodate the exhibit. A blog on our centennial website (midlandacs100.org) has been posting pictures of the construction, which has picked up speed as COVID restrictions have eased. Adjunct educational programming began in 2021.

The centennial website has recently posted information honoring Fred McLafferty, a former Midland Section ACS member and officer, and co-inventor of the GC/MS technique for which our local section was awarded an ACS National Historic Chemical Landmark in 2019. (The plaque designating this landmark is located in the Founder's Garden near the Loons Stadium – the former site of the Dow 47 Building where the research was conducted). Fred was located at Cornell University at the time of his passing in December 2021, and a video made of his recollections of the first GC/MS work (recorded in 2019) is also available on this website. The reader may wish to refer to a recent [In Memoriam article](#) on Fred McLafferty in the January 2021 issue of the *Midland Chemist*.

Other Midland Section ACS historical information is being updated and added, too. Look for a special new article for Women's History Month coming soon!

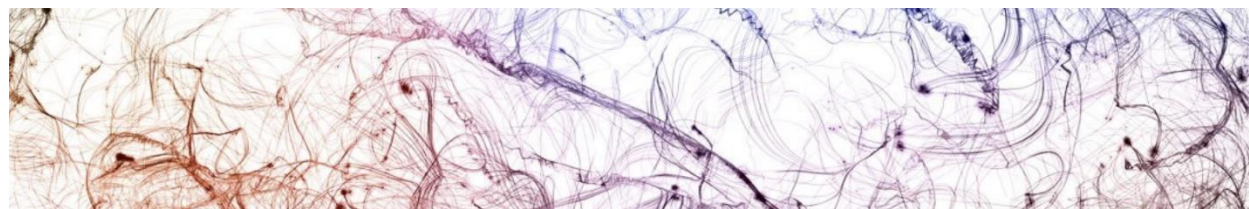
Two individuals at CMU, Rebecca Petrone and Veronica Gregory, have been especially involved in the efforts to "resurrect" the historical exhibit and associated programming. Last year, Rebecca helped us arrange three educational programs at CMU to increase awareness of the ACS in the Mount Pleasant community. She and her volunteers were involved with the programs, "Fire-work'd UP!" on July 8, "Playtime Science and Homespun History" on July 15, and "Frankenstein Friday" in October. We are offering virtual seminars together in March ("Making HERstory: Women in STEM"). Veronica also has been bringing her skills to bear in the updating of the www.midlandacs100.org website.

Background information about Rebecca and Veronica in their own words:

Rebecca Petrone (photo top right) is the Museum Educator/Technologist of the CMU Museum. She is originally from Gladwin, Michigan. After graduating from CMU in 2011, she moved to Chicago, Illinois, to pursue a career in the museum field. While in Chicago, she got the chance to work (and hone her group engagement skills) at the Museum of Science and Industry and at the Peggy Notebaert Nature Museum. After a brief year in Dublin, Ireland, to pursue her Master's degree, Rebecca moved back to Ann Arbor, Michigan in 2019, and then to Mount Pleasant in 2021. She is excited to continue working with the Midland Section ACS and cannot wait to bring her twin, 18-month-old daughters to the next collaboration!



Veronica Gregory (photo bottom right) is a Graduate Assistant at the CMU Museum. She graduated from CMU in 2021 with a major in History and a minor in Multimedia Design and is now pursuing an MA degree in History at CMU. She loves working at the Museum and learning something new every day. Recently, the opportunity to collaborate on the Midland Section ACS Centennial website has provided her with a wonderful experience in this area. In addition to working with the website's design, Veronica maintains the weekly blog which chronicles the installation of the Midland Section ACS Centennial exhibit at the Museum. This exhibit will be the first major installation for which she has been present at the Museum and she cannot wait to help reassemble and promote it!



MSU St. Andrews Announces 2022 Turner Alfrey Visiting Professor
Clare Light, Project/Event Coordinator, MSU St. Andrews

Dr. Christopher K. Ober (photo at right), Francis Norwood Bard Professor of Materials Engineering of the Department of Chemistry & Chemical Biology at Cornell University has been named the 2022 Turner Alfrey Visiting Professor. He will be in Midland on Tuesday, June 14, 2022. A hybrid format event is being planned. Dr. Ober will speak in-person at MSU St. Andrews, in Midland, and attendees will also be able to join his lecture via a Zoom webinar link.



Save the date. More details to follow. For more information about Chris Ober, please see <https://chemistry.cornell.edu/christopher-k-ober>.

For more information about his visit to Midland on June 14, please contact Clare Light at lightcla@msu.edu.

2022 Spring Awards Nominations and Banquet Reservations

Diana Deese, Awards Committee Chair, Midland Section ACS

Nominations are still being accepted! Please note that the March 25, 2022, nomination deadline is fast approaching, however.

Nominations are invited for the following areas:

- Outstanding Elementary Level Science Teaching
- Outstanding High School Chemistry Teaching
- Science Education Volunteer of the Year
- Outstanding Achievement and Promotion of the Chemical Sciences
- Outstanding Achievement in the Promotion of Diversity in Chemistry, Related Sciences, and Engineering
- Outstanding Service to the American Chemical Society
- Team Innovation Award
- Outstanding Middle Level Science Teaching
- Outstanding College Chemistry Teaching
- Outstanding Chemical Technician

Outstanding High School / College Chemistry Students

The Awards Committee also recognizes outstanding chemistry students at the high school and collegiate levels. Those students should be selected by their respective departments, and their names forwarded to the Awards Committee using the form e-mailed to the department contact. One selection per school, please; no supporting letters are needed. The deadline for submission is March 25, 2022.

Award criteria and prior recipients are available at awards.midlandacs.org, in the [January](#) and [February](#) issues of the *Midland Chemist*, or by request from dkdeese@dow.com.

Award recipients as well as Chemistry Olympiad winners and Fifty/Sixty/Seventy Year ACS Members will be honored at the 2022 ACS Spring Recognition Dinner at the Great Hall Banquet & Convention Center, in Midland, on Wednesday evening, May 4, 2022, featuring guest speaker, Wayde Konze, PhD, Senior Research Director at Dow.

(Electronic submissions are acceptable and preferred.)

Phone: (989) 636-9915, E-mail: awards@midlandacs.org or dkdeese@dow.com

For a list of ACS National Awards and local award recipients from prior years, please see the [January](#) and [February](#) issues of the *Midland Chemist*. As always, contact me if you have any questions! I hope to see everyone on May 4, 2022, at the Great Hall Banquet & Convention Center, in Midland!



ACS Spring Awards Recognition Dinner – RSVP Deadline, April 25
Diana Deese, Awards Committee Chair, Midland Section ACS

ACS Recognition Dinner

Wednesday, May 4, 2022, 5:30 PM to 9:00 PM

Great Hall Banquet & Convention Center at Valley Plaza Resort
5121 Bay City Road, Midland, Michigan

Program

5:30 PM – Cash Bar and Social Time

6:00 PM – Dinner

6:45 PM – Featured Speaker

7:00 PM – Awards Presentations

Educators, students, ACS members, industry colleagues, and 50-, 60-, 70-year ACS members/retirees will be recognized for their outstanding achievements at this 31st annual event. Our special guest speaker will be **Wayde Konze** (photo at right), PhD, Senior Research Director at Dow.

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! The cost of the dinner is \$20.00 per person and includes a plated chicken dinner, dessert, and beverage. A pre-dinner cash bar will be available. Your dinner reservation request must be received by April 25, 2022.

Payment options will be via the ACS Midland Section website www.midlandacs.org and using the Signup Genius button to RSVP and conveniently pay ahead of time, at the door the evening of the event, or by mail using the address indicated below.

Dress is business casual. This event is sponsored by the Midland Section of the American Chemical Society. For further information, contact Diana Deese at (989) 636-9915.



To reserve your spot by mail, return this form with payment (\$20.00/person) by **April 25, 2022**, to Diana Deese, The Dow Chemical Company, 1897 Building, E-bay East: E65, Midland, MI 48667, or RSVP via e-mail to dkdeese@dow.com. If paying at the door, you must still RSVP to Diana by April 25.

Name(s): _____

Affiliation: _____

Address: _____

Phone/Email: _____

ACS member? Yes / No (indicate by circling your member status)

Dietary Considerations: _____

Enclose payment of \$20.00 per person. Checks should be made payable to "Midland Section ACS"

The Magnesium Shortage Is No Typical Supply Chain Issue

Mark Jones, Director and 2020 Chair, Midland Section ACS

Editor's note: This article is reprinted, in part, from the Thursday, March 3, 2022, issue of *ACS Industry Matters Newsletter*, an online news publication of the American Chemical Society. At the National ACS level, Mark Jones is a member of the ACS Committee on Public Relations and Communications and the National Historic Chemical Landmark Committee. In this article, Mark explains that the magnesium shortage is due to China's commitment to reduce greenhouse gases.



Fritos and magnesium are an unlikely pair, but in today's crazy world they share one thing in common – both are in short supply. I can't find Fritos scoops anywhere in Midland, Michigan. Five stores all with bare Frito shelves. I don't know the genesis of the great Frito shortage but suspect it is the "normal" supply chain issues wrought by the pandemic. The magnesium shortage is different. It is not a typical supply chain issue. It might truly be monumental.

Magnesium is a product of the chemical industry. It is always found combined with other elements in nature, never in its native form. Magnesium production requires chemistry.

Magnesium is not rare. It is the [eighth most abundant element](#) in the universe. [It is the eighth most abundant element in the earth's crust, at about 2%, and makes up over 13% of Earth, and over 2% of the crust.](#) It is the [second most abundant cation](#) in seawater behind sodium. Mineral deposits and prevalence in the ocean make magnesium production possible in many places.

Magnesium's high strength-to-weight ratio makes it particularly attractive in applications where weight matters. When alloyed with other metals, it improves performance. Aluminum alloys are one of the largest uses. The chemical industry, in the form of Dow Chemical, figures large in the magnesium story. Dow, for over 80 years, was the world's leading manufacturer. The magnesium production facilities at the Dow Freeport, Texas, site were memorable. The settling ponds used in magnesium production took on a turquoise hue, making them one of the few parts of a chemical plant where beautiful was a fitting adjective. The shutdown of production was noticeable, both in the market and visually at the site.

The Dow process was developed using mined brines but moved to using seawater as the magnesium source. The plant in Freeport was built for World War II manufacturing, to provide critical material for aircraft production. Magnesium hydroxide is precipitated by addition of lime to start the [process](#). Reaction of magnesium hydroxide with hydrochloric acid gives magnesium chloride. Electrolysis of MgCl_2 produces magnesium and chlorine. It is energy intensive, with much of the energy added as electricity. War production far exceeded peacetime need, leading to over-capacity after the war. The U.S. accounted for about half of the global supply [in 1970](#), with Dow being the largest global producer. The U.S. share of production dropped to [around 30%](#) in the years prior to Dow exiting the business in 1998. Damage from Hurricane Frances in 1998 caused Dow to fold the business. Production just ended. No buyer was found. The plants were simply bulldozed.

Fast forward to 2022. China now accounts for [over 85%](#) of global primary magnesium production. Chinese production uses the [Pidgeon Process](#), named for the [inventor](#). Dolomite, a mixed calcium/magnesium carbonate mineral, is the magnesium source. [Calcination](#) releases carbon dioxide, producing magnesium oxide.

MgO is reduced at high temperature with [ferrosilicon](#), itself produced by the high temperature arc furnace reduction of silicon dioxide, quartz, in the presence of iron using coke as the reducing agent. Magnesium vapor exits the process and is condensed to collect the metal. Thermal energy and electricity in China are both supplied from coal. [One ton of magnesium consumes 8-12 tons of coal](#) during production. Coal is cheap, and low-cost magnesium from the Pidgeon Process largely pushed other manufacturers out of the market. The electrochemical production process lost out to the Pidgeon Process, with its reliance on coal and higher greenhouse gas emissions.

This certainly sets up to be a typical supply chain story. It isn't. The current magnesium shortage [is due to greenhouse gas emissions](#). China is sticking to its [commitment](#) to reduce CO₂ emissions, severely curtailing the magnesium industry. There is ample dolomite, ample production capacity, and ample coal.

The magnesium shortage marks the first time I know of where chemical production was shuttered purely to reduce greenhouse gas emissions. It is monumental. The ripple effects are being felt around the globe. Magnesium is a key, irreplaceable alloying material. [Ninety-five percent of Europe's magnesium comes from China](#). Aluminum, steel, and other metal industries are suffering supply shortages and price shocks.

The Fritos shortage is unlikely to have lasting impact. The magnesium shortage will not be as easily forgotten. Emissions reduction curtailed chemical production for the first time, but likely not the last. Fortunately, we already know a better way. A cleaner path to produce magnesium is known, developed, and proven. It is the one that the "dirtier" process replaced. Hopefully, we will be compelled to change for the better.

Addendum: The magnesium market is the largest market impacted by Chinese emissions reductions. Yellow phosphorus also faces shortages, produced in the same regions of China, and curtailed to meet emissions targets just like magnesium. Both illustrate the risks of focused, offshore production and of offshoring emissions.



ACS Division of the History of Chemistry Centennial

Carmen Giunta, Editor, *Bulletin for the History of Chemistry*

The Division of the History of Chemistry of the American Chemical Society (HIST) is 100 years old in 2022, and we have a present for you!

HIST is the home within ACS for chemists interested in the history of their discipline. Among our activities are publication of a peer-reviewed journal in the history of chemistry, the *Bulletin for the History of Chemistry*, and holding symposia on historical topics at national and regional meetings of the ACS. Both activities involve chemists and historians from around the world. All members and affiliates of HIST receive two issues of the *Bulletin* each year as part of their membership – hard copies delivered by mail as well as electronic access.



In this 100th anniversary year, we have prepared an extra issue of the *Bulletin*, available electronically to anyone (open access). Prominent chemist historians and historians of chemistry were invited to contribute essays on the theme “Novel Insights in the History of Chemistry: Looking Back Yet Mostly Looking Forward.” This theme led to a wide variety of responses, which we have collected together into the following six topics:

- Expansive Approaches to the History of Chemistry
- Foci on Specific Topics
- Multidisciplinary Approaches and Tools
- Thriving, Inclusivity, Diversity, and Equity and the History of Chemistry
- Relationships of Historians and Chemist Historians
- The Past, Present, and Future of the History of Chemistry

We invite you to peruse this commemorative issue online at:

http://acshist.scs.illinois.edu/bulletin_open_access/bull22-vol47-1.php

While you are there, check out 30 years of open-access issues of the *Bulletin of the History of Chemistry*, which are free to all after a three-year window of access exclusively by HIST members and subscribers:

http://acshist.scs.illinois.edu/bulletin_open_access/bull-index.php

Finally, consider joining HIST as a member or affiliate. More information about HIST is available at:

<http://acshist.scs.illinois.edu/index.php>

and a membership form can be found at:

[http://acshist.scs.illinois.edu/HIST%20Brochure\(ACS\)rv2020.pdf](http://acshist.scs.illinois.edu/HIST%20Brochure(ACS)rv2020.pdf)



What It Takes for Chemical Technical Professionals to Excel

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

Editor's note: This article is reprinted, in part, from the Thursday, February 17, 2022, issue of *ACS Industry Matters Newsletter*, an online publication of the American Chemical Society. It is based on an interview with Jeff Seifferly, an active, long-time Mid-Michigan Technician Group (MMTG) and Midland Section ACS member. Jeff provides advice based on his 40 distinguished years in an industry chemical technical role.



Jeff Seifferly (photo at left) joined the Dow Corning Corporation in 1981 after receiving his associates degree in applied science in electronic engineering technology from Delta College in University Center, Michigan. During his career, Jeff has contributed in a variety of areas including high voltage insulator development, semiconductor fabrication materials, and thin film technology, plasma enhanced chemical vapor deposition, and nano silicon technology development. He has 14 patent invention disclosures, 4 patents, and 20 external papers and presentations. Jeff has received a Dow Corning Technical Achievement Award and a Public Service Award.

He was a founding member of the Mid-Michigan Technician Group in 1991, a member of the American Chemical Society Committee on Technician Affairs, and was the National Chemical Technician of the Year award winner from the ACS in 2015. He is a charter member of the ACS Science Coach program, working with chemistry teachers since 2010. Jeff has been a member of the Dow Corning Employees Scholarship Committee since 1993 and its chair since 2005.

He is very active in the Great Lakes Bay community, holds leadership roles on several boards and committees in the arts, education, and youth sports, and is the Grand Knight of the Bay City Knights of Columbus Council 414. Jeff was a recent recipient of the Dick and Carol Hardy Community Improvement Award for his pervasive and diverse commitment to bettering his community. Jeff retired from Dow Corning/Dow in 2020 after nearly 40 years of service to both companies.

What's something that most ACS members probably don't fully appreciate about the working world of chemical technical professionals?

They are a highly skilled, knowledgeable, capable, and valuable resource. While some technicians may not have received an advanced degree, they should be considered a technical equal due to their work experience, innovative thinking, and practical, common sense laboratory skills.

What motivated you to become a founding member of the Mid-Michigan Technician Group (MMTG) of the ACS Midland Section?

Early in my career, I often heard chemical technical professionals described as "just a technician" or "a pair of hands," although I never thought of myself that way. When the opportunity to be a founding member of an organization whose intended purpose was to increase the visibility of technicians, create resources for career and leadership skills development, and provide networking opportunities, I jumped at the chance. Membership in MMTG allowed technicians from two separate (at the time) companies, Dow Corning Corporation and The Dow Chemical Company, to interact with each other socially and technically. We were able to share best lab practices and identify and gain knowledge from other technicians with expertise in our area of interest.

MMTG has now been active for over 30 years. What's the secret to its longevity?

The Mid-Michigan Technician Group has been fortunate to have had a large number of highly motivated, technically skilled, and dynamic leaders throughout its lifetime. We have been able to continually bring in new members with our novel technical training programs, career skills improvement, and science outreach opportunities. We count among our members Tom Lane, the 2009 National ACS President, and nine recipients of the ACS Committee on Technician Affairs Annual National Chemical Technician Award. Our MMTG strategic model seems to work, as we have been privileged to have received the ACS ChemLuminary Award for Technician Groups 18 of the 22 times it has been awarded.

While with Dow Corning, you were awarded the 2015 National Chemical Technician Award, and with it, a plaque and \$1,000 honoraria. Did you do something special with the money, and where is the plaque these days?

It would not have been possible to receive the NCTA award without the continual support of my wife, Aileen, so we used the honoraria to explore and experience the Denver area (where I received the award). The plaque is proudly located on a wall in my study, next to a couple of other meaningful awards I have received – the Dow Corning Public Service Award and a prestigious annual local Community Service Award.

What's the one thing that you learned later in your career that you wish you knew at the start of it?

I wished I'd had an idea of how quickly technology and my work responsibilities would change. I started my career sharing a workstation running DOS and Windows 3.1 with another laboratory technician. I was expected to work on a few different projects with a couple of different managers for my entire career. I didn't anticipate working on 35 different projects and reporting to 21 different managers before retirement. Technicians typically have limited interaction with customers but over time I was fortunate to have been able to travel; work directly with customers, equipment repair personnel and vendors; and transfer technology I helped develop to various companies at their sites.

When you think back on successful chemical technical professionals, what are some of the common attributes that they share?

Work ethic, communication skills, innovativeness, and reliability. In most cases they have a diverse work background and have held a variety of titles as they advanced in their career. They have developed the ability to work in teams, solve problems, and take responsibility for the accuracy and quality of their work.

What's your best piece of advice for chemical technical professionals?

Enthusiastically share your work experiences and best lab practices, continually develop your skill set at every opportunity, and strive to have an exemplary work ethic. Join an ACS Local Section and hold an office. Attend technical conferences and industry events and gain new experiences by volunteering broadly within the community – at local schools, with government, and in the music and arts communities. You will be expected to be extremely computer and technologically savvy. Employers are looking for experienced technicians who can act as the bridge between the lab and the consumer, and between science and manufacturing.

You're retired now. What do you miss the most about your job? And what's your favorite part of retired life so far?

The satisfaction of completing a project for a customer ahead of schedule and beyond expectations. The challenges of deadlines and opportunities for troubleshooting and solving problems. I also miss the daily social interactions that I had with my work colleagues. My favorite part of retired life has been the nearly unlimited time that I have available to spend with family. I also have finally begun to make progress on my ever-increasing home improvement projects list. Having more time to participate in fraternal organizations like the Knights of Columbus and provide resources to Special Olympics activities is also rewarding. Retirement has also allowed me to increase the amount of entertainment opportunities that I can accommodate with my mobile DJ business.

Added note: Readers may be interested in referring to an earlier *Midland Chemist* article on Jeff Seifferly, published in the summer of 2020 at the time of Jeff's retirement. That article appeared on page 5 of the [July 2020, Vol. 57, No. 7 issue](#) of the *Midland Chemist*.

Midland Section ACS Member Frank Scheidt Celebrates 100th Birthday **Steve Keinath, Co-Editor, The Midland Chemist**

Editor's note: The article appended below is reprinted, in part, from an article which was published in the Thursday, March 3, 2022, issue of the *Midland Daily News*. Andrew Mullin authored the original article for the *Midland Daily News*. Photo credits: Katy Kildee for the *Midland Daily News*.

An article titled "Reminisces of a Couple of Senior Chemist" appeared in the [May 2020, Vol. 57, No. 5](#) issue of the *Midland Chemist*. That article shared a dialogue between Frank Scheidt and Midland Section ACS Director and Historian Wendell Dilling. As it turns out, Wendell and Marcia Dilling are neighbors of Frank on Norwood Drive, in Midland. The prior *Midland Chemist* article recounts Frank's early years of activity in matters related to the ACS. Locally, he moderated an ACS-sponsored program named "Chem Quiz" back in the mid- to late-1950s. He also served as a section editor for Chemical Abstracts Service (Section 23, Inorganics) for over 10 years. Frank joined the American Chemical Society in 1953, and as of his 100th chronological birthday year he is a 69-year member of the ACS.

Happy 100th birthday, Frank Scheidt, from your friends, colleagues, and fellow members of the Midland Section of the American Chemical Society.



NORWOOD DRIVE NEIGHBORS SURPRISE MIDLAND RESIDENT FRANK SCHEIDT ON HIS 100TH BIRTHDAY

Photo at left: Laura Hintz of Bayside Home Care, center, hands a plate of cupcakes to **Frank Scheidt**, right, as a group of his neighbors and caretakers surprise him with treats and cards in celebration of his 100th birthday on Wednesday, March 2, 2022, at his home in Midland.

As about 10 of his neighbors and caretakers walked into his living room, Midland resident Frank Scheidt exclaimed, "What's going on here?" The Norwood Drive neighborhood, west of Eastman Avenue and south of Dilloway Drive, put together a surprise party for Scheidt's 100th birthday just before noon on Wednesday, March 2, 2022.

Neighbor Gary Billotti heard about Scheidt's birthday through fellow neighbor Marcia Dilling, and the neighborhood thought they should get together and celebrate. "He has no family in town, so we thought this was really important, and I am glad we did it," Billotti said. Billotti also considered it exciting to be with someone who is 100 years old, something he had never experienced before.

Scheidt was an airplane mechanic, and he also earned a doctorate in organic chemistry and worked for Dow Chemical for 30 years. Scheidt has been a Midland resident since 1956 and has lived in the Norwood Drive neighborhood since 1966, when he had his house built there.

He recalled one of the happiest days of his life back on December 21, 1935. He was a freshman in high school when he was in Chicago with his brother, who had just gotten a job there. Scheidt considered his brother his greatest hero and was extremely happy to be with him for that big moment.

Cupcakes, cards, and balloons were given to the appreciative, yet puzzled Scheidt. He at one point expressed appreciation to his neighbors for the party but said that if he'd had a say in it, he would have gladly been anywhere else. This remark caused his neighbors to erupt into a chorus of laughter.



"I really haven't accomplished anything," Scheidt said. "I just refuse to die."

*Photo at left: **Frank Scheidt** blows out the candle on a plate of cupcakes as a group of his neighbors and caretakers surprise him with treats and cards in celebration of his 100th birthday.*



Please Consider the Midland ACS Scholarship Fund in Your 2022 Giving!

Gina Malczewski, Director and Scholarship Committee, Midland Section ACS

Last year in May, **Dr. Wendell and Marcia Dilling** (photo at right) issued a challenge relative to growing the Midland ACS Scholarship Fund. **Few have responded to that call so far, and the fund today currently stands at just over \$72,000.** Please read more below about the history and purpose of this fund. Past scholarship recipients are often highlighted in issues of the *Midland Chemist*.



The Midland Section ACS has been proud to offer scholarships to deserving undergraduate students majoring in a chemical science since 2002. Annually, two to four scholarships are awarded to candidates who have graduated from a high school in one of the Section's five counties (Bay, Midland, Saginaw, Isabella, and Gratiot), are studying at a Michigan university, and are ideally intending to pursue a career in some aspect of chemistry or chemical engineering. Selections are made by a committee and are based on academics, service and extracurricular contributions, and an essay on the student's sources of motivation as well as future plans.

Awards usually range from \$1,000-2,000, depending on the financial performance of the Midland ACS Scholarship Fund (#399) administered through the Midland Area Community Foundation. A long-standing goal of the Section has been to raise the base amount to \$100,000 to serve more students.

Wendell and Marcia Dilling, both trained chemists and stalwart supporters of our Local Section, are prepared to help us reach that goal by donating up to \$18,000 as part of a Challenge Grant to the Scholarship Fund, which currently stands at \$72,100. **They will match 1:1 any new contributions to the fund at the Midland Area Community Foundation over the next couple of years (\$18,000 X 2 + \$72,100 = \$108,100).**

Please consider contributing to this worthwhile cause. **Your donations will help shape the future of chemistry!** If you have any questions about contributing to the Midland ACS Scholarship Fund, please call the Midland Area Community Foundation at 989-839-9661. Thank you.

An online donation form can be found through the following link:

[Midland Section American Chemical Society Endowed Scholarship Fund #399](#)

Looking for Electronic Versions of *The Midland Chemist*

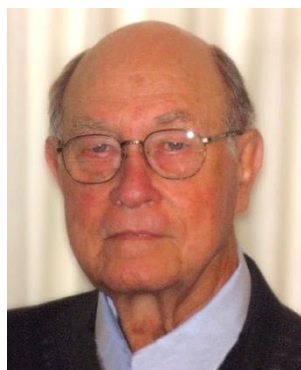
Mark Jones, Director and 2020 Chair, Midland Section ACS

Electronic versions of *The Midland Chemist* are available back to the year 2000, but some of those issues are missing. Anyone having electronic versions of past issues of *The Midland Chemist* is asked to notify webmasters@midlandacs.org. Please see midlandchemist.org for the missing issues.

Specifically, three issues of *The Midland Chemist* are missing from the electronic archive: March 2004, October 2010, and December 2010.

In Memoriam – Donald Dale McCollister
Steve Keinath, Co-Editor, *The Midland Chemist*

Editor's note: The obituary notice for Don McCollister as it appears here is reprinted, in part, from the Wednesday, February 9, 2022, issue of the *Midland Daily News*. Don joined the American Chemical Society in 1942 and at the time of his passing he was an 80-year member of the ACS. Of particular note, Don was also the longest Midland Section ACS member at the time of his passing.



Donald Dale McCollister, 100, of Midland, passed away Monday, February 7, 2022, at his home. He was born February 23, 1921, in Pittsburg, Kansas, son of the late Mark D. and Ruth (Sims) McCollister. Don grew up in Pittsburg and graduated from Pittsburg High School. After graduation, he attended Kansas State University earning a Bachelor of Science degree in Industrial Chemistry. Don was immediately hired by Dow Chemical Company in 1942, prompting his move to Midland.

In 1944, he enlisted in the United States Navy, honorably serving his country during World War II in the Pacific area. Don returned to Dow Chemical in 1946, where he remained until his retirement in 1989. During his tenure with Dow, Don traveled extensively in his work on regulatory affairs in the health and environmental sciences area.

He married the former Susan Beatty on September 26, 1964. In his younger years, Don enjoyed archery and playing volleyball. As he matured, his sporting tastes transitioned more toward tennis and golf. He was a member of the Midland Junior Chamber of Commerce, Lions Club, Midland Country Club, American Chemical Society, and Society of Toxicology (charter member).

He was a loving husband and devoted father who was always there to provide for and support his family. Don is survived by his wife of 57 years, Susan McCollister; sons, Jon (Danielle) McCollister and Roger (Janet Honeyman) McCollister; daughters, Ann (Mark) Klitzke, Carol (John) Wyek, and Janet McCollister; six grandchildren; and three great grandchildren. He was preceded in death by his sister, Harriet Whitehead; and former wife, Margaret McNeal McCollister.

Cremation has taken place, and there are no services scheduled at this time. The family wishes to thank Bayside Home Care, which provided compassionate care for Don in his final months.

Those planning an expression of sympathy are asked to consider Senior Services of Midland County.

Arrangements have been entrusted to the care of the Ware-Smith-Woolever Funeral Home in Midland, Michigan.



In Memoriam – Pamela Jean Slavings
Steve Keinath, Co-Editor, The Midland Chemist

Editor's note: The obituary notice for Pam Slavings as it appears here is reprinted, in part, from the [online obituary notification](#) published by Smith-Miner Funeral Home of Midland, Michigan.



Pamela Jean Slavings, 73, of Midland passed away peacefully on February 7, 2022, at MediLodge of Midland. Pamela was born on September 11, 1948, to the late Willard and Ellen (Neill) Wallace.

Pamela enjoyed cooking and baking very much, especially at her church's bake sales. She had a very eclectic taste in TV that she liked to watch which included horror movies, bad sci-fi movies, and the Hallmark Channel. Pamela loved spending time with her sisters, playing cards on Saturdays, and learning to paint at Seasons Adult Day Services in Midland.

Pamela is survived by her son, Phillip Allen Putnam; daughters, Dawn (Jeremy Bierlein) Palmer and Stacy Christine Slavings; grandsons, Joshua James Myers and Caleb Matthew Myers; and sibling, Willard Earl Wallace, Jr. She was predeceased by her sisters, Deborah Jean Wallace Avery and Barbara Jean Wallace.

Cremation has taken place and a memorial service will be held at a later date. In lieu of flowers, those planning an expression of sympathy are asked to consider Floyd Church of God, of Midland, Michigan, in her honor.

Smith-Miner Funeral Home in Midland, Michigan, is honored to be serving the Slavings family. To share a special memory please visit www.smithminer.com.

Added note: Three of Pam Slavings' long-time fellow Mid-Michigan Technician Group (MMTG) and Midland Section ACS member associates were approached and asked to comment on what they remembered about Pam and her involvement in MMTG and ACS leadership roles and activities. Their reminiscences are shared here:

Diana Deese – Pam spent at least five years serving on the Midland Section ACS Awards Committee during the time that I served as the chair of the committee. She was always a joy to work with and loved being the person to greet everyone as they arrived at the annual Spring Awards Banquets. It was a volunteer role that she requested to have every year that she served on the committee. I really appreciated her dedication and sunny disposition on our team.

Jeff Seifferly – On the MMTG side of things, Pam served three different two-year terms as a MMTG Director. She also served on the Midland Section ACS Awards Committee for a number of years.

Dave Stickles – Pam was a member of MMTG and served on the MMTG Board as a Director for at least a couple of terms. She was a member of MMTG for many years and volunteered for many activities. I don't recall her ever being a full ACS member, but she did serve on the Midland Section ACS Awards Committee for quite a few years because of her connection with MMTG.

She also helped with a number of science outreach events over the years, especially Sci Fest. I remember when we were at Delta College for Sci Fest and gave out cider and donuts. Pam would volunteer at that table, filling cups of cider, keeping donuts on the table, and handing them out to the visitors to our MMTG booth. I also remember Pam helping with science demos in other years as well. Going way back, she may also have helped with the Kids and Chemistry demos when we did things with the Saginaw Hispanic community back when Pat and Pete Dreyfuss headed up that activity many years ago and the event theme was “The Unsigned Letter.” Pam helped when we did science demos at the Midland County Fair for a number of years.



In Memoriam – Freeman R. (Pete) Lehman
Steve Keinath, Co-Editor, *The Midland Chemist*

Editor’s note: The obituary notice for Pete Lehman as it appears here is reprinted, in part, from the Wednesday, February 23, 2022, issue of the *Midland Daily News*. Pete’s obituary mentions the fact that he was a member of American Chemical Society for a number of years.



Freeman R. (Pete) Lehman died Friday, February 18, 2022, in Grand Rapids (Rockford), Michigan. He was born February 5, 1926, in Fort Wayne, Indiana, the son of Rufus and Aldina (Frankhauser) Lehman.

During his High School days, he was given the nickname Pete which stayed with him throughout his life. He served in the United States Air Force during World War II.

After discharge from the United States Air Force, he worked with his father in the construction industry mastering the masonry and plastering trades. He practiced these trades while attending Indiana and Michigan State Universities. Immediately after graduating from Michigan State University in 1950 with a Bachelor of Science degree in Chemistry, he joined The Dow Chemical Company as an Analytical Chemist.

Two years after moving to Midland, Michigan, he married his college sweetheart, Gloria A. Gooch, in Buffalo, New York, on August 9, 1952.

Pete worked for The Dow Chemical Company for over forty years. He served the company in Midland, Michigan; London, England; Milwaukee, Wisconsin; Little Rock, Arkansas; and Anchorage, Alaska. Pete held positions in Research and Development, Sales, Business Management, and Manufacturing. He retired as a Vice President of Dow U.S.A. and General Manager of Michigan Operations.

Pete served on the board of directors of Chemical Bank and Trust Company in Midland, Michigan; Dolco Packaging Corporation in Los Angeles, California; Wolohan Lumber Company in Saginaw, Michigan; and Dendritech in Midland, Michigan. He was a member of the American Chemical Society, National Paint and Coatings Association, and served on the board of directors and the executive committee of the Society of the Plastics Industry.

He was active in civic organizations serving on the boards of the Midland Community Center (Operations), United Way of Midland, Midland Jaycees, Midland County Growth and Development Council, and the Michigan Manufacturing Association. He was appointed by Governor James Blanchard as a member of the Council on Environmental Quality for the State of Michigan. Pete is a past chairman of the City of Midland Parks and Recreation Commission and was on the corporate board of MidMichigan Health Center. He was a long-time member of the First United Methodist Church in Midland, Michigan, and the Midland Rotary Club. Rotary International named him as a Paul Harris Fellow.

Pete thoroughly enjoyed working with and being associated with many wonderful people throughout his career at Dow. The Dow Chemical Company gave Pete and his family many wonderful experiences with the opportunity to live in different locations. Most importantly, he always considered Midland, Michigan, as his home. It is a great community.

Pete's recreational activities included fishing, skiing, and spending time at their summer home on Grand Traverse Bay near Traverse City, Michigan. In his spare time, he enjoyed gardening and home maintenance projects. After retirement he had fun traveling with his beloved wife of 68 years.

Pete is survived by his son, Jack Lehman and wife Margie of Michigan, and granddaughters, Sarah (Lehman) and husband David Sawall of Wisconsin, and Darcy Lehman of New York; daughter Lori (Lehman) Kardos and grandson Ryan Freeman Albert Kardos of Texas; nieces and nephews, Rita (Liberson) Feder of Florida, Marcia Liberson and husband Herb Solomon of California, Tim George and wife Leimomi of Indiana, and David Rosenberger and wife Dawn of Arizona, Bill Rosenberger and Jim Rosenberger both of Washington. He will be missed by those who knew and loved him.

He was preceded in death by his beloved wife, Gloria Lehman; his parents, Rufus and Aldina (Frankhauser) Lehman; daughter's husband, Russell J. Kardos; sisters, Dorothy Rosenberger, Violet George, MaryAnn Liberson, and Esther Lehman; and brother, Chester Lehman.

A funeral service for Pete Lehman was conducted at 1:00 PM, Wednesday, February 23, 2022, from First United Methodist Church with Rev. Jung Eun Yum officiating. Interment followed in Midland City Cemetery. Family received guests at the church on Wednesday, February 23, 2022, from 12:30 PM until the time of service. Memorial donations toward First United Methodist Church Endowment Fund, MidMichigan Medical Center, or one's charity of choice are appreciated.

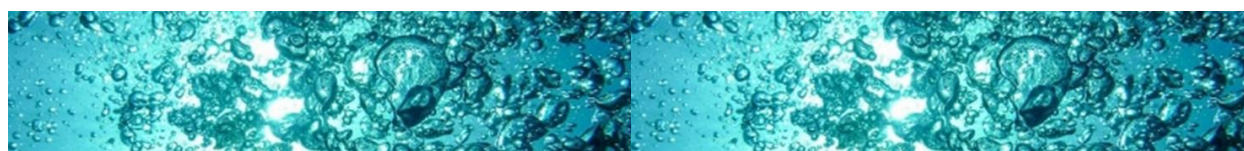
Arrangements are under the care of Wilson Miller Funeral Home in Midland, Michigan.



Upcoming Dates, Events, and Other Updates

- March 7 (7:00 – 8:00 PM) – Hybrid Midland Section ACS Board meeting, MSU St. Andrews, Midland (in person), and via a WebEx conference call connection at [Webex Board Meeting - March 2022](#), Meeting number: 2651 874 4771, or by phone at Phone number: 650-215-5228, Access code: 2651 874 4771.
- March 9 (7:00 – 8:30 PM) – MSU St. Andrews Family Astronomy Night free virtual event. Presentation topic: *Constellations: The History of Our Skies*. Please see <https://standrews.msu.edu/family-astronomy-night/> for more information about these ongoing monthly programs and to access prior archived presentations.
- March 16 – Midland Section ACS Outreach presentation for the Center for Interactive Learning & Collaboration on “*Women in STEM*.” See the website for more information: [Center for Interactive Learning & Collaboration \(cilc.org\)](#).
- March 20-24, 2022 – ACS Spring 2022 National Meeting and Exposition, San Diego, CA. This meeting is being planned as an in-person and virtual hybrid meeting. Meeting theme: *Bonding Through Chemistry*. For more information, please see [ACS Meetings & Expositions - American Chemical Society](#).
- March 21 – **Deadline for online applications for Great Lakes Bay Area Project SEED Summer Internships.** For more information on program dates, eligibility criteria, and to apply, visit www.acs.org/projectseed, or email project-seed@midlandacs.org.
- March 25 – **Deadline for Midland Section ACS Spring Awards nominations** to honor outstanding educators, volunteers, and colleagues. For more information, contact Diana Deese, Midland Section ACS Awards Committee Chair, at dkdeese@dow.com or 989-636-9915.
- March 25 – “Girls’ Day Out” STEM event sponsored by Delta College. See the following website for more information: [Girls' Day Out - Delta College](#).
- March 29 – **Deadline to submit abstracts for the ACS Fall 2022 National Meeting and Exposition**, Chicago, IL, August 21-25, 2022. Meeting theme: *Sustainability in a Changing World*. For more information, please see [ACS Meetings & Expositions - American Chemical Society](#).
- April 4 (7:00 – 8:00 PM) – Hybrid Midland Section ACS Board meeting, MSU St. Andrews, Midland (in person), and via a WebEx conference call connection at [Webex Board Meeting - April 2022](#), Meeting number: 2651 874 4771, or by phone at Phone number: 650-215-5228, Access code: 2651 874 4771.
- April 11 (4:00 – 5:00 PM) – Midland Section ACS free virtual workshop, “*How to Write a Poem*,” for the Chemists Celebrate Earth Week (CCEW) Illustrated Poem Contest. Fun and free virtual workshop for 6th to 12th graders to learn about the CCEW theme, “*The Buzz About Bugs: Insect Chemistry*.” Sign up is required by April 8 by going to <https://www.signupgenius.com/go/70A054BADAA2EA20-howtowrite>. For more information or any questions, please contact Michelle Rivard at michelle.rivard@dow.com.
- April 21 – **Deadline for 2022 Chemists Celebrate Earth Week (CCEW) Illustrated Poem Contest** on the topic “*The Buzz About Bugs: Insect Chemistry*.” Go to [Spring Poetry Contest](#) to obtain more information and to download a poem submission entry form. For more information, any questions, and to submit your entry forms, please email Michelle Rivard at michelle.rivard@dow.com.
- April 24 (12:00 – 4:00 PM) – Midland Section ACS Outreach event, “*Earth Day Action Expo*.” Free event at H.H. Dow High School, in Midland. Topic: *The Buzz About Bugs: Insect Chemistry*.
- April 25 – **Deadline to RSVP for the Midland Section ACS Spring Awards Recognition Dinner.** Great Hall Banquet & Convention Center, 5121 Bay City Road, Midland, Wednesday, May 4, 2022. Featured speaker: Wayde Konze, Senior Research Director, Dow. Cost: \$20.00 per person. For more information or any questions, please contact Diana Deese, Midland Section ACS Awards Committee Chair, at dkdeese@dow.com or 989-636-9915.

- May 2 (7:00 – 8:00 PM) – Hybrid Midland Section ACS Board meeting, MSU St. Andrews, Midland (in person), and via a WebEx conference call connection at [Webex Board Meeting - May 2022](#), Meeting number: 2651 874 4771, or by phone at Phone number: 650-215-5228, Access code: 2651 874 4771.
- May 4 (5:30 – 9:00 PM) – Midland Section ACS Spring Awards Banquet, Great Hall Banquet & Convention Center, 5121 Bay City Road, Midland. Featured speaker: Wayde Konze, Senior Research Director, Dow. Cost: \$20.00 per person. For more information or any questions, please contact Diana Deese, Midland Section ACS Awards Committee Chair, at dkdeese@dow.com or 989-636-9915.
- June 6 (7:00 – 8:00 PM) – Hybrid Midland Section ACS Board meeting, MSU St. Andrews, Midland (in person), and via a WebEx conference call connection at [Webex Board Meeting - June 2022](#), Meeting number: 2651 874 4771, or by phone at Phone number: 650-215-5228, Access code: 2651 874 4771.
- June 7-10, 2022 – Central Regional Meeting of the American Chemical Society, *Archaeometry to Zymurgy*, Ypsilanti, MI. For information visit [2022 Central Regional Meeting](#).
- June 14 (Save the Date) – MSU St. Andrews, in Midland, will host 2022 Turner Alfrey Visiting Professor Christopher Ober of Cornell University. A hybrid format event is being planned. For more information, please contact Clare Light at lightcla@msu.edu.
- August 1 (7:00 – 8:00 PM) – Hybrid Midland Section ACS Board meeting, MSU St. Andrews, Midland (in person), and via a WebEx conference call connection at [Webex Board Meeting - August 2022](#), Meeting number: 2651 874 4771, or by phone at Phone number: 650-215-5228, Access code: 2651 874 4771.
- August 21-25, 2022 – ACS Fall 2022 National Meeting and Exposition, Chicago, IL. This meeting is being planned as an in-person and virtual hybrid meeting. Meeting theme: *Sustainability in a Changing World*. For more information, please see [ACS Meetings & Expositions - American Chemical Society](#).
- September 12 (7:00 – 8:00 PM) – Hybrid Midland Section ACS Board meeting, MSU St. Andrews, Midland (in person), and via a WebEx conference call connection at [Webex Board Meeting - September 2022](#), Meeting number: 2651 874 4771, or by phone at Phone number: 650-215-5228, Access code: 2651 874 4771. **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 3 (7:00 – 8:00 PM) – Hybrid Midland Section ACS Board meeting, MSU St. Andrews, Midland (in person), and via a WebEx conference call connection at [Webex Board Meeting - October 2022](#), Meeting number: 2651 874 4771, or by phone at Phone number: 650-215-5228, Access code: 2651 874 4771.
- November 7 (7:00 – 8:00 PM) – Hybrid Midland Section ACS Board meeting, MSU St. Andrews, Midland (in person), and via a WebEx conference call connection at [Webex Board Meeting - November 2022](#), Meeting number: 2651 874 4771, or by phone at Phone number: 650-215-5228, Access code: 2651 874 4771.
- December 5 (7:00 – 8:00 PM) – Hybrid Midland Section ACS Board meeting, MSU St. Andrews, Midland (in person), and via a WebEx conference call connection at [Webex Board Meeting - December 2022](#), Meeting number: 2651 874 4771, or by phone at Phone number: 650-215-5228, Access code: 2651 874 4771.



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