THE MIDLAND CHEMIST

A publication of the Midland Section of the American Chemical Society

August 2021, Vol. 58, No. 8

Contents

Midland Section ACS Receives 6 ChemLuminary Nominations for 2020 Programs

Mark Jones, Past Chair, Midland Section ACS

The Midland Section of the American Chemical Society is honored to be nominated for six 2020 ChemLuminary awards, once again including Outstanding Section Performance in the Medium Size Category. 2020 presented challenges we hope never to face again. The nominations are down from the record 19 nominations received in 2019. It is gratifying that our reduced programming still received six nominations. Once again, the commitment, inventiveness and creativity of our volunteers are being recognized as some of the best in the nation.

The uncertainty that ruled 2020 continues into 2021. The date and format of the ChemLuminary Award Ceremony remain uncertain. What is certain is the ceremony, when held, will include a keynote address by Mary K. Engelman, recipient of the 2021 Award for Volunteer Service to the American Chemical Society. Presentations of awards given by 22 committees of the ACS will follow.

Programs nominated are:

Outstanding Performance Awards - Medium Size Category

Best New Public Relations Program of a Local Section: innovative use of Facebook for publicizing and sharing Earth Day activities

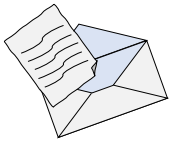
Most Innovative New Activity or Program: for developing and delivery of a FREE virtual Middle School Camp during summer 2020

Outstanding Ongoing National Chemistry Week Event: for offering two tents of activities at the Midland Center for the Arts Halloween Bash, a socially distanced yet interactive event

Outstanding U.S. National Chemistry Olympiad: Midland Local Section Chemistry Olympiad

Outstanding Virtual Event for Chemists Celebrate Earth Week or National Chemistry Week: for a range of activities including a virtual National Illustrated Poem Contest, "50-days to Earth Day" Facebook campaign, and with Zoom webinars for Earth Week.

Letter to the Editor



Reply to Robbyn Prange's Chair Column – My First ACS Meeting (*The Midland Chemist*, July **2021**, Vol. *58*, No. 7, p. 1-2)

Hi Robbyn,

Your Chair Column in the July issue of *The Midland Chemist* brought back memories from my past.

I attended the same 1994 joint Central and Great Lakes Regional ACS meeting at the University of Michigan in Ann Arbor that you attended. This was approximately my 30th regional or national ACS meeting, and your first. I presented two poster papers at that meeting based on the work of two Project SEED students directed by two CMU faculty members and myself.

One poster was entitled "Effect of Concentration and Oxygen on the Photochemical Conversion of *endo*-Dicyclopentadiene to 1,3-Bishomocubane and Byproducts." The SEED student on this project was Bradley J. Hetherington from Shepherd High School and the CMU co-preceptor was Robert E. Kohrman.

The second poster was entitled "MM, MNDO, and AM1 Calculations on Bishomocubyl Systems." The SEED student on this project was Angela M. Schroeder, from Clare High School and the CMU co-preceptor was Mary M. J. Tecklenburg.

Each student had two preceptors for my projects because although I was the senior author I was not present at CMU every day the students were working, and a faculty member needed to be present for safety and other reasons.

Interjecting some school spirit into the posters, I used yellow sheets of paper with blue borders and black printing for Brad's poster. Shepherd High School's and University of Michigan's colors are blue and yellow (maize), and co-author Bob Kohrman has a B.S. degree from the U of M. For Angela's poster I used white sheets of paper with green borders and black printing. Clare High School's and Michigan State University's colors are green and white. Mary Tecklenburg was a postdoc at MSU. I have no official connection with either university other than having two granddaughters who are students at the U of M.

The 2001 Central Regional meeting in 2001 was in Grand Rapids. I presented two posters at that meeting: "Relative Rates of Bond Rotation and Ring Closure in the Photocycloaddition Intermediates from C60 and the Isomeric 2,4-Hexadienes," and "Effect of Second-Choice Votes on ACS Elections."

I met your previous faculty advisor, Dr. Silver, at this meeting. Around this time the ACS was selling lapel pins with chemical element symbols on them. He wore a pin with Ag on it, very appropriate. I wore one with the symbol for tungsten, W.

The first national ACS meeting I attended was the spring meeting in 1961 in St. Louis MO. We visited Saint Louis Zoo in addition to watching Saul Winstein and Herb Brown debate non-classical carbonium ions.

Thanks for writing your Chair Column.

Wendell Dilling

Call for Nominations for 2022 Officer and Director Candidates

Shuting Feng, Chair, Nominations and Elections Committee, Midland Section ACS

Here is your opportunity to become more involved in your local ACS section! We need candidates to run for the following positions for 2022:

- Chair-elect (1-year term)*
- Secretary (1-year term)
- Treasurer (1-year term)
- Chair, Nominations and Elections Committee (1-year term)
- Directors (3 open positions for 3-year terms)

*Note: The election of a Midland Section ACS member to the Chair-elect position triggers a rolling three-year commitment, the first year as Chair-elect, the second year as Chair, and the third year as Past Chair. The Chair and Past Chair positions are not subject to the annual elections process unless a vacancy arises.

If you are interested in running for any of these positions, or if you know of someone who might be interested, please contact Shuting Feng at sfeng7@dow.com (preferred) or by phone at 989-496-1617. If you have any questions regarding the responsibilities of any of the positions, please contact the current officers or Shuting Feng. You are also encouraged to visit our website at www.midlandacs.org.

Reason for Optimism

Mark Jones, Past Chair, Midland Section ACS, and Member, ACS Committee on Public Relations and Communications and the Chemical Heritage Landmark Committee

Editor's note: This article is reprinted, in part, from the Thursday, May 13, 2021, issue of *ACS Industry Matters Newsletter*, an online news publication of the American Chemical Society.

There are lots of things I don't know how I know. Facts ricochet around in my head with no recollection of where I learned them. No real indication of their veracity. I learned that 105 kcal/mol is the bond dissociation energy for methane. I just looked it up, and it is still the bond dissociation energy for methane. 6.023×10^{23} molecules per mole was what I learned. 6.022×10^{23} is what it is now. The change is slight, but it still befuddles me. I must reflect for a moment every time I use Avogadro's number, pausing to remember what I learned and then selecting the other option.

Occasionally, I know exactly where I learned something. I learned that urban birds use the cellulose acetate from cigarette filters to build nests. I remember the room I was in, where I was sitting, who stated the fact, and how she stated it. It was stated as yet another example of how humans were wrecking the planet. After I learned that birds were using cigarette butts as nesting material, a paper came out concluding that the birds were choosing the filter material because it reduced insect pests in the nest [1]. Chicks raised in nests containing tobacco-tainted material were healthier. More recently, the same researchers raised the potential of longer-term, chronic health impacts. The chicks were healthier, but some metrics indicated that the adult birds hatched in tobacco-laden nests suffer longer lasting, chronic harm [2].

Science is, in part, observational. The observation that birds use cigarette filters for nesting material is now a scientific fact. Determining the impact of those filters is more complicated, more difficult to interpret, more nuanced.

Science builds on observations to be predictive, linking causes and effects. Science guides actions. Compelling science on the merits of cigarette butt nests could lead me to offer cigarette butts to the bluebirds and robins currently nesting in my yard. I am not a smoker. I have no ready source of used cigarette filters. I don't see myself collecting them given the current understanding of the causes and effects. Compelling science indicating that the filters cause harm to birds would spur very different action. I could use forums, like this, to implore responsible disposal, disposal that eliminates the chance they will ever end up in nests. I already make a point of picking up trash, but currently I don't bother with the infrequent cigarette butt. Cellulose acetate and paper degrade rapidly in the environment, and I find them kind of disgusting. I would overcome my disgust if I knew that birds were being actively harmed. Were the science more settled, it would guide action.

I fall victim to motivated reasoning. Things that sound right, things that I want to believe are accepted easily. Things that I don't want to believe are more easily ignored, more easily called unsettled science. I don't do it intentionally, but I am likely to hold onto preexisting beliefs, yearning for new while clinging to the familiar. "No level of alcohol consumption improves health" is the title of a 2018 meta-analysis on alcohol consumption [3]. The title is amazingly succinct and direct. It could have as easily been "Don't drink alcohol, it is bad for you". The analysis concludes that any slight potential benefits are more than offset by negative impacts on health. Motivated reasoning let me drink a glass of wine last night.

There is some subjectivity to the measure of benefits and detriments. It is nuanced, at least nuanced enough, to let me hold on to the hope that the wine I drank last night wasn't bad for me. I've been exposed to data, but I've not yet turned those data into knowledge. Synthesis of knowledge from data requires processing. That processing is flawed, not just for me, but for all of us. Motivated reasoning lets me drink.

Things get more complicated when trying to ascertain group knowledge. My wife and I clearly offer different responses to data on the deleterious impacts of alcohol consumption. Two reasonably intelligent people confronted with the same data act differently. I can state with some certainty when my family knew bluebirds built a nest in the yard, a simple observational fact immediately shared. I don't know whether my wife spent even one clock cycle pondering cigarette butts and birds. Even if the science were completely settled, my knowledge does not translate to family knowledge. My family doesn't know about, and doesn't have a position on, birds and cigarette butts, any more than we have a unified position on alcohol consumption. Even with a small group, determining when consensus interpretation of complicated data is reached is challenging. Yet, it is surprisingly common to ask when a company, a group of people, knew something.

Darren Woods, the current CEO of ExxonMobil, recently wrote about carbon capture in an opinion piece for the Wall Street Journal [4]. The climate journey of ExxonMobil is exceedingly well described. Entire books have been written about it [5]. The discussion is disproportionately about when and what the company knew about climate change. Mr. Woods outlines the intent to make a business of carbon capture. It is not a treatise on acceptance of scientific consensus or impacts on existing company business. Mr. Woods never states in this most recent piece whether he or ExxonMobil believe in human-caused climate change. Previous CEOs clearly stated they didn't [6]. Questions were raised about whether the best available science was used to inform company decisions [7]. These investigations make a point of highlighting documents indicating when data were presented [8]. An epiphany by one member of a group, or one employee in a company, doesn't indicate an epiphany by the entire group or company. Motivated reasoning, spiced with cognitive dissonance, means that reaching consensus within any group can be slow, especially when the data are challenging and nuanced. It is my conjecture that defining an exact moment a company knew something is impossible. It isn't a reasonable question of any group of people short of directly observable facts.

Science is a game of guess and test. It is no surprise that facts are questioned, reconsidered, and updated. The hesitancy of the petrochemical enterprise to embrace climate change is now a thing of the past. Motivated reasoning held back acceptance. Now motivated reasoning is enabling it. Like ExxonMobil, many oil companies are now seeing opportunity in carbon storage [9]. Motivated reasoning prompted by fear is now superseded by reasoning motivated by opportunity. Change in collective thought takes time.

I am optimistic that I will soon see fledged bluebirds flitting about my yard. Other than the money thrown at them in the form of $6 per pound mealworms, I haven't actively intervened to ensure their health. My exposure to data on the impacts of nesting material failed to drive action. I do run a periodic search looking for "tequila is good for you". So far nothing has turned up, but I remain an optimistic victim of motivated reasoning. I am also optimistic about the change in mindset in the petrochemical industry regarding climate change. The decision to be part of the solution, long in coming, is reason for optimism regardless of the motivation.

References:

1. *Suarez-Rodriguez Monserrat, Lopez-Rull I., and Macias Garcia Constantino; "Incorporation of cigarette butts into nests reduces nest ectoparasite load in urban birds: new ingredients for an old recipe?", Biology Letters, 9 (1), 2012, 20120931-20120931. DOI: 10.1098/rsbl.2012.0931.*
2. *Suárez-Rodríguez, Monserrat; Montero-Montoya, Regina D., and Macías Garcia, Constantino; "Anthropogenic Nest Materials May Increase Breeding Costs for Urban Birds", Front. Ecol. Evol., 03 February 2017. doi.org/10.3389/fevo.2017.00004.*
3. *Burton, Robyn; Sheron Nick; "No level of alcohol consumption improves health", The Lancet, 22 September 2018; 392(10152):987-8. doi.org/10.1016/S0140-6736(18)31571-X.*
4. *Woods, Darren W.; Blommaert, Joe; "ExxonMobil's Plan to Capture Carbon", The Wall Street Journal, 20 April 2021. www.wsj.com/articles/exxonmobils-plan-to-capture-carbon-11618871420.*
5. *Banerjee, Neela; Cushman, Jr., John H.; Hasemyer, David; and Song, Lisa; Exxon: The Road Not Taken, InsideClimate News (October 28, 2015) and is available from Amazon and other sources.*
6. *Former Exxon CEO Lee Raymond made statements at the Detroit Economic Club in 1996, www.climatefiles.com/lee-raymond-collection/1996-exxon-raymond-moving-forward-together-economic-club/, and at the World Petroleum Congress in 1997, www.climatefiles.com/exxonmobil/1997-exxon-lee-raymond-speech-at-world-petroleum-congress/.*
7. *Schwartz, John; "Rex Tillerson Testifies in Exxon Climate Change Case", The New York Times, 30 October 2019. www.nytimes.com/2019/10/30/climate/rex-tillerson-exxon-climate-change-case.html.*
8. *Hall, Shannon; "Exxon Knew about Climate Change Almost 40 Years Ago", Scientific American, 26 October 2015, www.scientificamerican.com/article/exxon-knew-about-climate-change-almost-40-years-ago/.*
9. *McFarlane, Sarah; "Oil Giants Turn to Carbon Storage", The Wall Street Journal, 20 April 2021. www.wsj.com/articles/shell-exxon-look-to-profit-from-capturing-customers-carbon-emissions-11618824602.*

COVID-19 Chemistry Teaching Activity

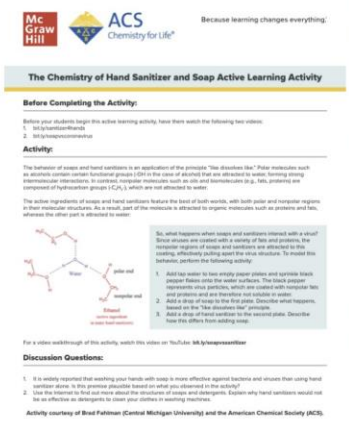
Brad Fahlman, Professor of Chemistry, Central Michigan University

A student activity on the chemistry of hand sanitizer and soap in relation to COVID-19 was prepared for the ACS (shown on next page). A PDF of the activity is available at the following link: PDF of COVID Demo Activity

For additional insights on experiences teaching chemistry during the COVID-19 pandemic, see the article *Introducing Chemistry Concepts in an Online Environment through a Citizen-First Approach*, co-authored by John S. Kirk, Department of Chemistry, Carthage College, Kenosha, Wisconsin; and Bradley D. Fahlman, Department of Chemistry & Biochemistry, Central Michigan University, Mt. Pleasant, Michigan. The article is published in a Special Issue of the Journal of Chemical Education and can be found by following the link: https://pubs.acs.org/doi/10.1021/acs.jchemed.0c00667

May 21, 2020

CMU chemist creates world-wide interactive COVID related lesson



Because learning changes everything.

The Chemistry of Hand Sanitizer and Soap Active Learning Activity

Before Completing the Activity:

Activity:

Discussion Questions:

Activity courtesy of Brad Fahlman (Central Michigan University) and the American Chemical Society (ACS).

In response to the ongoing world-wide pandemic, hand washing and sanitizing is on the top of everyone's mind... but which is better? That's exactly what McGraw Hill, one of the largest educational publishers in the world, asked CMU chemist Brad Fahlman.

"McGraw Hill reached out to me to put together something that is related to our current COVID pandemic – namely, the effect of soaps vs. hand sanitizers in killing the coronavirus," said Brad Fahlman, a professor in the Department of Chemistry & Biochemistry at CMU.

In partnership with the American Chemical Society, Fahlman created *The Chemistry of Hand Sanitizer and Soap Active Learning Activity*, an interactive lesson that has been distributed to approximately twenty thousand chemistry instructors (both high school and postsecondary) around the world.

"Instructors will use it in their classes to engage their students – to show students how chemistry influences their everyday lives," said Fahlman

"The activity features two ACS video links; students will watch those videos and then the instructor will walk them through the activity, including the post-activity questions."

"Although this came out too late to be used in our Spring semester, it is perfect for CHM 265QR at CMU. Of course, I intend to use this activity in the Fall," added Fahlman.

This is not Fahlman's first interaction with McGraw Hill. He is also Editor-in-Chief of *Chemistry in Context* (9th and current 10th editions).

Because learning changes everything.®

The Chemistry of Hand Sanitizer and Soap Active Learning Activity

Before Completing the Activity:

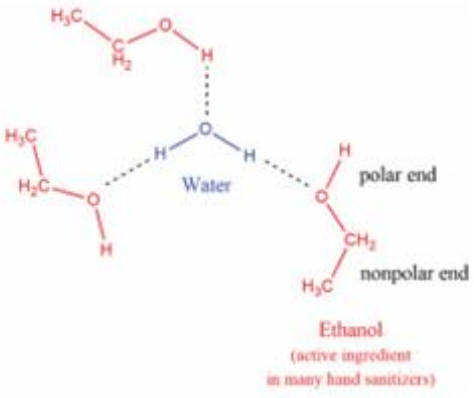
Before your students begin this active learning activity, have them watch the following two videos:

1. bit.ly/sanitizer4hands
2. bit.ly/soapvscoronavirus

Activity:

The behavior of soaps and hand sanitizers is an application of the principle "like dissolves like." Polar molecules such as alcohols contain certain functional groups (-OH in the case of alcohol) that are attracted to water, forming strong intermolecular interactions. In contrast, nonpolar molecules such as oils and biomolecules (e.g., fats, proteins) are composed of hydrocarbon groups ($-C_xH_y-$), which are not attracted to water.

The active ingredients of soaps and hand sanitizers feature the best of both worlds, with both polar and nonpolar regions in their molecular structures. As a result, part of the molecule is attracted to organic molecules such as proteins and fats, whereas the other part is attracted to water:



So, what happens when soaps and sanitizers interact with a virus? Since viruses are coated with a variety of fats and proteins, the nonpolar regions of soaps and sanitizers are attracted to this coating, effectively pulling apart the virus structure. To model this behavior, perform the following activity:

1. Add tap water to two empty paper plates and sprinkle black pepper flakes onto the water surfaces. The black pepper represents virus particles, which are coated with nonpolar fats and proteins and are therefore not soluble in water.
2. Add a drop of soap to the first plate. Describe what happens, based on the "like dissolves like" principle.
3. Add a drop of hand sanitizer to the second plate. Describe how this differs from adding soap.

For a video walkthrough of this activity, watch this video on YouTube: **bit.ly/soapvssanitizer**

Discussion Questions:

1. It is widely reported that washing your hands with soap is more effective against bacteria and viruses than using hand sanitizer alone. Is this premise plausible based on what you observed in the activity?
2. Use the Internet to find out more about the structures of soaps and detergents. Explain why hand sanitizers would not be as effective as detergents to clean your clothes in washing machines.

Activity courtesy of Brad Fahlman (Central Michigan University) and the American Chemical Society (ACS).

Family Astronomy Night Virtual Event – August 11
Clare Light, Project/Event Coordinator, MSU St. Andrews

MICHIGAN STATE UNIVERSITY

MSU St. Andrews

Family Astronomy Night, Wednesday, August 11, 2021 at 7 PM EST – VIRTUAL EVENT

August 11 @ 7:00 pm - 8:30 pm EDT

FREE

This month's presentation will focus on Saturn. Please check back, more details coming soon!

Please register to receive the Zoom login. You may register up to the presentation start time or even during the meeting to join us.

https://msu.zoom.us/webinar/register/WN_dlTR_DUmRMC_fO3hKA0CJQ

Please join our mailing list to receive notices about upcoming Astronomy Night presentations and other events at MSU St. Andrews.

Attention students: MSU St. Andrews participates in the Great Lakes Bay Region STEM Passport program. You may attend an event or workshop and log it as a STEM experience on your passport!

Michigan State University is committed to providing equal opportunity for participation in all programs, services, and activities. Accommodation for persons with disabilities may be requested by contacting (517) 432-4499 by Monday, August 2, 2021. Requests received after this date will be honored whenever possible.

Programming is made possible through the support of several local organizations: the Herbert H. and Grace A. Dow Foundation, the Rollin M. Gerstacker Foundation, the Charles J. Strosacker Foundation, and the Dow Chemical Company Foundation.

Midland ACS Day at the Fair – Thursday August 19

Jeanette Young, Midland Section ACS

2021 Fall Scientific Meeting

Margaret Hwang, Fall Scientific Meeting Committee, Midland Section ACS

Fall Scientific Meeting Invited Speakers:

- Babak Borhan (Keynote), MSU Dept. of Chemistry
- Nirala Singh, UofM Dept. of Chemical Engineering
- Bingbing Li, CMU Dept. of Chemistry
- Jake Steinbrecher, Dow Automotive & Elastomers

Fall Scientific Meeting Registration:

To register for the 2021 Fall Scientific Meeting, go to https://sites.google.com/view/acs-2021-fsm/home.

Fall Scientific Meeting Abstract Submissions:

The deadline for abstract submissions for oral and poster presentations is Friday, September 3. Please submit your abstracts to acsfallsubmits@gmail.com. For more information, please see ACS 2021 FSM (google.com).

Equity in STEM Symposium Information:

The deadline for abstract submissions for poster presentations is Friday, September 3. For more information, please see ACS 2021 FSM (google.com). For any questions, please contact the STEM symposium co-organizers, Bingbing Li at li3b@cmich.edu or Gina Malczewski at reginamalczewski@gmail.com.

New Midland ACS Scholarship Fund Challenge

Gina Malczewski, Director and Scholarship Committee, Midland Section ACS

The Midland Section of the 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.

Dr. Wendell and Marcia Dilling (photo at right), both trained chemists and stalwart supporters of our Local Section, are now 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 $64,953.22. **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 + $64,953.22 = $100,953.22).**

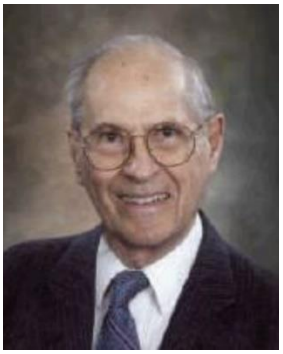
Please consider contributing to this worthwhile cause. **Your donations will help shape the future of chemistry!** If you have any questions about contributing to the Midland ACS Scholarship Fund, please call the Midland Area Community Foundation at 989-839-9661. Thank you.

An online donation form can be found through the following link:
Midland Section American Chemical Society Endowed Scholarship Fund #399

In Memoriam – Fred Ayres Blanchard

Steve Keinath, Co-Editor, The Midland Chemist

Editor's note: The obituary notice for Fred Blanchard as it appears here is reprinted, in part, from the Saturday-Monday (Weekend), July 3-5, 2021 issue of the *Midland Daily News*. Fred Blanchard joined the American Chemical Society in 1953 and at the time of his passing he was a 68-year member of the ACS.



Fred Ayres Blanchard passed away in his Midland home on June 28, 2021 at the age of 98. He was born May 27, 1923 to Raymond White and Pauline Ayres Blanchard in Cleveland, OH. His childhood was spent in Evansville, IN and Wilmington, OH. He enjoyed summers playing on creek sand bars and roaming nearby woods and farm fields.

Fred entered the University of Cincinnati in 1941, enrolling in chemical engineering and R.O.T.C. He was called to active duty in 1943 and completed his degree in mechanical engineering at Louisiana State University in September 1944. He served in Army Headquarters Intelligence in the Philippines and Engineering Technical Intelligence in Japan. After his discharge in 1946, Fred returned to the University of Cincinnati.

He met Alice Lloyd at the Wesley Foundation in Cincinnati. They were married on August 28, 1948, in her family church, Pleasant Ridge Methodist Church.

Church life and community service were important to Fred. In 1947, he joined a Methodist delegation to assist with post-war reconstruction in France. He served on various boards at the Midland First United Methodist Church and as chair of the Board of Trustees. Fred loved music, singing in church choirs most of his adult life, and continuously at First United Methodist Church from 1951 until 2019. He also held many leadership roles in the Boy Scouts of America from 1965 until 1998.

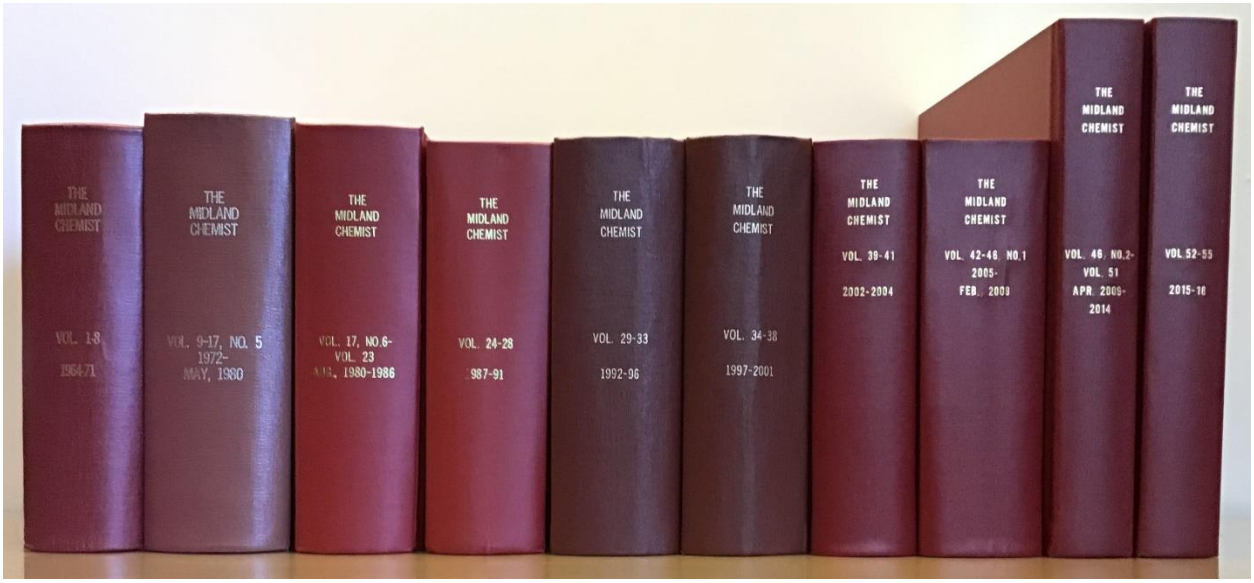
Fred received his Ph.D. in physics in 1951 and was employed that year by The Dow Chemical Company, working on radiotracer applications until his retirement in 1986. Fred and Alice raised three children, Charles Lloyd Blanchard, Paul Edward Blanchard, and Mark Raymond Blanchard, in Midland. It was a source of pride that each of his sons became Eagle Scouts, as he himself had done.

Fred was preceded in death by his beloved wife, Alice. He is survived by his sons, Charles, Paul, and Mark; his daughters-in-law, Shelley Tanenbaum, Patricia Smith Blanchard, and Karin Speirer Blanchard; and his grandchildren, Marta Blanchard, Samuel Blanchard, Rees Blanchard (Jessica Stothers), Nathaniel Blanchard, and Dexter Blanchard. He was loved by all and will be greatly missed.

Funeral services took place 11:00 AM on Thursday, July 8, 2021 at the First United Methodist Church, in Midland. Rev. Pam Bucholz and Rev. Jung Eun Yum officiated with burial in the Midland Cemetery. Fred's family received friends at the church on Thursday, July 8, from 10:00 AM until the time of service. Funeral arrangements have been entrusted to the care of Ware-Smith-Woolever Funeral Home, 1200 West Wheeler Road, Midland, MI 48640, Phone: 989-631-2292.

In Past Issues of *The Midland Chemist*

Wendell L. Dilling, Director and Historian, Midland Section ACS



From these volumes . . .

50 Years Ago, *The Midland Chemist* **1971**, *8*, No. 6, 7.

In *The Supervisor is not the Professor* by G. Stewart Johnson and Carl Schafer: "College placement officers, professors and personnel people in business and industry are helping graduates make one of the most important decisions of their lives. Selecting a job and adjusting to it is not an easy task. One young graduate summed up the topic by saying, "Adjusting to a work environment after four years in school is more difficult than adjusting to marriage.""

40 Years Ago, *The Midland Chemist* **1981**, *18*, No. 6, 5.

In *Midland Section Nominated For ACS Annual Award*: "The Midland Section is one of several sections nominated for the annual Local Section Outstanding Performance Award. The winner will be announced at the annual ACS National Meeting in New York later this month.
Carol J. Frischmann, manager, office of local section activities said the recommendation of the Midland Section was "based on the program of significant activities carried out by your section in 1980, as described in your well-organized account." The account Ms. Frischmann referred to was the annual report prepared last year by William E. Dennis, chairman-elect. Last year Dr. Dennis served as Section secretary."

30 Years Ago, *The Midland Chemist* **1991**, *28*, No. 6, 11.

In *Project SEED Scholarship to Honor Frank Popoff*: "Frank Popoff, Dow president and chief executive officer, received some well-deserved recognition at the ACS National Meeting in Atlanta. In honor of his accomplishments as co-chairman of the Campaign for Chemistry, the ACS has established The Frank Popoff Project SEED Scholarship at his alma mater, Indiana University.
The scholarship will be awarded to a former Project SEED (Summer Educational Experience for the Disadvantaged) student planning to major in chemistry at Indiana University."

20 Years Ago, *The Midland Chemist* **2001**, *38*, No. 5, 12.

In *Chemists and Careers, Perseverance Pays* by Don Miller: "There is probably no greater ego-deflating activity than conducting a job search, especially in a tight job market. To receive one rejection letter after another is not only discouraging but downright depressing. So to bring this activity to a successful conclusion, persistence is a must.
In an article in the Detroit Free Press, Mort Crim expressed it succinctly when he paraphrased the antismoking catch-phrase. "Don't quit quitting." He went on to say that not all superachievers have great talent or super intellect but they all have perseverance. Chester Carrlson took his idea to 20 large corporations before one of them liked his concept and, thus, Xerox was born."

10 Years Ago, *The Midland Chemist* **2011**, *48*, No. 4, 4.

In *Spring Awards Banquet Honors Teachers, Students, Others* by Diana Deese, Awards Committee Chair; Photographs provided by Angelo Cassar: "Over 200 local students, educators, and industry personnel attended the Midland ACS Section's 20th Annual Spring Awards Banquet on April 28, 2011 at the Great Hall Banquet and Convention Center in Midland Michigan. Eldon Graham, professor emeritus at Saginaw Valley State University was invited as the opening speaker in which he presented his program, "My Life-Long Love Affair with Chemistry and Engineering.""

Upcoming Dates, Events, and Other Updates

- August 2 (7:00 – 8:00 PM) – Midland Section ACS Board meeting, Primrose Retirement Community Clubhouse in person at 5600 Waldo Avenue, Midland, or via a WebEx conference call connection at Cisco Webex Meeting - August 2021, phone number: 989-633-1166.
- August 11 (7:00 PM) – MSU St. Andrews Family Astronomy Night via Zoom. See flyer on page 9 of this newsletter for details and registration link.
- August 12 (10:00 AM) – Deadline to purchase discounted Midland County Fair all-day ride tickets (good for any day that the rides are open). **Tickets must be purchased by 10 AM on August 12.** See flyer on page 10 for details.
- August 19 (4:30 – 7:30 PM) – ACS Day at the Midland County Fair. Science demonstrations, networking, and free food. Discounted all-day ride tickets (good for any day that the rides are open) must be purchased by 10 AM on August 12. See flyer on page 10 for details.
- August 22-26, 2021 (**Save the Date**) – Fall 2021 National ACS Meeting & Exposition (**Atlanta, GA and Online**). Meeting theme – *Resilience of Chemistry*. For more information, please see ACS Meetings & Expositions - American Chemical Society.
- September 3 – **Deadline for abstract submissions for virtual poster presentations for the October 22 *Equity in STEM Symposium*, and for oral and poster presentations for the October 23 Virtual Fall Scientific Meeting.** For more information, please see ACS 2021 FSM (google.com).
- September 7 (7:00 – 8:00 PM) – Midland Section ACS Board meeting, MCFTA Board Room (anticipated location, in person), or via a WebEx conference call connection at Cisco Webex Meeting - September 2021, phone number: 989-633-1166. **Please note: This Board meeting is being held on Tuesday evening, not the usual Monday evening.**
- October 4 (7:00 – 8:00 PM) – Midland Section ACS Board meeting, MCFTA Board Room (anticipated location, in person), or via a WebEx conference call connection at Cisco Webex Meeting - October 2021, phone number: 989-633-1166.

- October 22 (12:30 – 5:00 PM) – *Equity in STEM Symposium*, a Midland Section ACS sponsored virtual symposium poster session event held the afternoon before and in conjunction with the 2021 Fall Scientific Meeting. **The deadline for abstract submissions for poster presentations is Friday, September 3**. For more information, please see ACS 2021 FSM (google.com). For any questions, please contact the STEM symposium co-organizers, Bingbing Li at li3b@cmich.edu or Gina Malczewski at reginamalczewski@gmail.com.
- October 23 (8:00 AM – 5:00 PM) – 2021 Midland Section ACS Virtual Fall Scientific Meeting. Meeting theme: *Fast or Slow … Chemistry Makes it Go!* See the meeting flyer in this newsletter for more information. Register at https://sites.google.com/view/acs-2021-fsm/home. **The deadline for abstract submissions for oral and poster presentations is Friday, September 3.** Please submit your abstracts to acsfallsubmits@gmail.com. For more information, see ACS 2021 FSM (google.com).
- November 1 (7:00 – 8:00 PM) – Midland Section ACS Board meeting, MCFTA Board Room (anticipated location, in person), or via a WebEx conference call connection at Cisco Webex Meeting - November 2021, phone number: 989-633-1166.
- December 6 (7:00 – 8:00 PM) – Midland Section ACS Board meeting, MCFTA Board Room (anticipated location, in person), or via a WebEx conference call connection at Cisco Webex Meeting - December 2021, phone number: 989-633-1166.

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Volunteer Staff

Vickie Langer	Editor (vllanger@dow.com)
Steve Keinath	Editor (skeinath54@charter.net)
Mike Malczewski	Webmaster (web@midlandacs.org)

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