

# THE MIDLAND CHEMIST

A publication of the Midland Section of the American Chemical Society

Vol. 46, No. 6

December 2009

www.midlandacs.org

From the Chair

## My Final Column...What a Journey!

It has been an exciting year for me as Chair of the Midland Section. There were a number of experiences that will be permanently etched in my memory cells. For example, this year's SciFest event was at TheDow Event Center in Saginaw. After sharing chemistry experiments and concepts with both youth and adults, we were treated to an exciting Saginaw Spirit hockey game.

During the first intermission, I was scheduled to present an ACS Salute to Excellence award to a representative of the Saginaw Spirit Hockey Club. Just before the presentation, I was told that no management representative was available from the hockey club to receive the award, so I was asked to present the award to their main mascot, Sammy Spirit, who appears to be cross between Big Bird and Foghorn Leghorn. I have never presented anything to a bird before except perhaps bird seed! Presenting this award to Sammy Spirit was a fun experience. Their other mascot, Steagle, is featured on the cover of

the activity booklet that our event committee developed, which is available on our Section website along with the "hockey players as elements" slideshow.

However, the most memorable experience of the entire year was my involvement as Section Chair with the alternative high school education programs in Saginaw, Bay City, and Midland. Through the generosity of our ACS National President and Section member, Dr. Tom Lane, I presented a Salute to Excellence to each of three alternative high schools for their achievement in fostering a chemistry program. The Salutes were actually signed by Dr. Lane! The involvement of the ACS with alternative education was envisioned, spearheaded, and brought to a successful outcome by one of our Section's key members, John Blizzard.



Angelo Cassar



Presentation of the ACS Salute to Excellence Award at Windover High School (l-r): Midland Section Chair Angelo Cassar, Windover Board of Directors member Bruce Lovelace, Midland Section Chair-elect John Blizzard, and Windover Principal Greg Armstead.

## In This Issue

Chair Column	1
Hardcopy Mailings	1
Volunteers	2
Alternative Ed	2
2010 MC Deadlines	2
238th ACS National Meeting	3
MC Changing of the Guard	4
Student Members	4
Project SEED	5
2010 Board Meetings	6
Outstanding Chemical Technician	6
Kids and Chemistry	7
Benefits for Unemployed	7
MMTG Activities and Outreach	8
Fall Scientific Meeting	9
Earth Day 2010	10
SciFest	11
Lane: What a Year!	12
Longtime Members Honored	13
In Past Issues	14

## Calendar for Dec./Jan.

Jan 11	Midland Chemist Deadline
Jan 18	Committee Meetings
Jan 18	Board of Directors Meeting

Click on the Calendar button at <http://www.midlandacs.org> for more details.

Finally, this year will always be a special chapter in my book of life. And the reason is because of you, the members of the Midland Section. Your contribution of talent and time to make our local community a better place has been nothing short of inspirational! If anyone questions why the Midland Section has received record awards, one only has to look for the answer in the generous eyes of our contributing members.

Ann Birch, MC Editor

## Hardcopy Mailings

If you are currently receiving a hardcopy mailing of *The Midland Chemist* and now use e-mail, please send your e-mail address to [newseditor@midlandacs.org](mailto:newseditor@midlandacs.org) so that we can put you on the online distribution list and take you off of the hardcopy mailing list. This saves the Section the cost of printing and mailing. Thanks!

Angelo Cassar, Midland Section Chair; John Blizzard, Midland Section Chair-elect

## Volunteers — Thank You to Outgoing and Call for Incoming

The Midland Section has long held the enviable recognition as one of the top Sections in ACS. Although not the largest by any means, our Section is thriving and very active, both in our chosen field of science and in outreach to students of all ages, to educators, and to the community at large. How does this happen year after year? Volunteers! We would like to take a moment to thank in particular the committee chairs who are retiring from their positions at the end of this year and invite all members to think of where and how they can participate. Participation can be on the level of a one-time event or project, to regular tasks a few hours a month, to more involved participation. You choose. But do choose!

Our thanks to Susan Rhodes (Fall Scientific Meeting, joined ACS 1996), Brad Fahlman (Awards, joined ACS 1998), John Oh (Membership, joined ACS 2005), Gerard Nowaczyk (MMTG, joined ACS 2003), and Ann Birch (Editor, *The Midland Chemist*, joined ACS 1976). A very special thanks to Lin Dorman (joined ACS 1957), who has spearheaded the Minority Affairs committee for many years as well as playing a major role in initiating the Diversity award and the Section Scholarship, among many other activities. Lin has been a member for over 50 years, all of them in the Midland Section. We salute you, Lin!

Please consider participating in the following positions: Membership committee chair, database manager, Mi-

nority Affairs committee chair, Midland Chemist editor or co-editor, Midland Chemist writer/reporter, website writer/programmer. You are welcome to contact the persons currently associated with these areas. They are listed on the website (<http://www.midlandacs.org>, About Us, Section Leadership, Committee Chairs). You can also contact John Blizzard, who is the Chair-elect (989-496-1434; [jdblizzard@quadsil.com](mailto:jdblizzard@quadsil.com)), for more information, or if you're not sure who to contact. You do not need to be an ACS member to hold these positions and, remember, committee members are needed for all areas as well as volunteers for one-time projects. See where you can make a difference!

Ann Birch, Midland Chemist Editor

## New Science Opportunities in Alternative Ed

Ribbon-cutting ceremonies at three area high schools celebrated a significant leap in chemistry education. Over a year and a half ago, ACS member and chair-elect John Blizzard was looking for ways to expand chemistry education in the Midland Section area. He found what he was looking for at the Bay-Arenac Community High School, an alternative school for at-risk students. The alternative high schools in the Section are known for their very dedicated staff but many are plagued

with old facilities and inadequate equipment, making state-mandated requirements much harder to meet.

John partnered with Dow Corning, the Bay Area Community Foundation, and the Kantzler Foundation to finance a new chemistry program at Bay-Arenac. Today, with \$400,000 of donations and the participation of other groups, such as the Midland Area Community Foundation, the program is expanding to two other alternative high schools, Windover High School in Midland and Omni Adult and Alternative Education in Carrollton. Laboratory equipment and materials were purchased or donated, and local chemistry expertise was provided. However, the real heroes are the three science teachers, one from each school: Bob Moyer, Bay-Arenac; Nancy Vossen, Windover; and Vicki Behe, Omni. Over two years, these teachers worked together to develop curriculum and chemistry programs to adhere to state guidelines, yet still meet the needs of their students. ACS is now considering publishing the curriculum.

At this point, the students are still learning the basics of chemistry and focusing on safety in the lab. By early December fully equipped labs will begin. So, does this mean this project is wrapped up? Not by any means. ACS members will be visiting classrooms for guest instruction, explaining how chemistry plays a role in their respected careers. If you'd like to have a part in this excellent program with a chance to meet great teachers and students, contact John Blizzard ([jdblizzard@quadsil.com](mailto:jdblizzard@quadsil.com), 989-496-1434). He'll put you to work!



At Windover School ribbon-cutting (l-r): Nancy Vossen, Greg Armstead, John Blizzard, Jan McGuire, Bruce Lovelace

Ann Birch, MC Editor

## 2010 MC Dates

Below are the deadlines for the 2010 issues of *The Midland Chemist*. The editorial calendar is available from the website under the Communications tab. Deadline dates are also on the online calendar, accessible from the website home page.

January 11 (Feb. issue)  
 March 8 (Apr. issue)  
 May 10 (Jun. issue)  
 July 12 (Aug. issue)  
 September 13 (Oct. issue)  
 November 8 (Dec. issue)

Kurt Brandstadt and Bob Howell, Councilors

## Report on the 238th ACS National Meeting, August 2009

**A**CS President Thomas H. Lane welcomed all attendees to the 238<sup>th</sup> ACS National Meeting, which was the largest Washington D.C. meeting in history. Specifically, 14,319 registrants were reported in attendance, including 8,575 regular attendees, 3,159 students, 462 guests, 676 exhibit only, and 1,447 exhibitors. The Board, Council, and Committees addressed numerous actions on behalf of the Society. A brief review is presented below.

### Finance

The Society is projected to end the year with a net contribution from operations of \$11.2 million, or \$528,000 favorable to the 2009 approved budget. The favorable projection is largely the result of Contingency Plan actions and expense management initiatives implemented in early 2009, which are expected to fully offset revenue shortfalls in the Approved Budget across several categories.

### Membership

The provisions of the Petition on Membership Categories and Requirements were fully implemented this past June with the transfer of former Student Affiliates to Student Member status, and Associate Members to Regular Member status. As of July 31, the Society had 9,732 Student Members, 6,500 of them former Student Affiliates and more than 3,000 of them new Student Members.

### Leadership Development

The creation of the ACS Leadership Development System has positioned the Society to help develop the skilled leadership needed to advance as the world's largest scientific society.

### Chemistry Ambassadors

A new program was announced to equip ACS members to be more effective spokespersons for chemistry. Information detailing Chemistry Ambassadors may be found at [www.acs.org/chemistryambassadors](http://www.acs.org/chemistryambassadors).

### National Chemical Landmark

The "Dip-and-Read Tests for Blood and Urine Glucose" conducted by Al and Helen Free was recognized as a National Historic Chemical Landmark.

### Society Collaboration

A Memorandum of Understanding on sustainability and related global challenges was approved between the ACS and the Royal Society of Chemistry that features educational outreach activities and material for all.

### 2011 IYOC

In preparation, the ACS Board was briefed by the leaders of the International Union of Pure and Applied Chemistry (IUPAC), the European Association for Chemical and Molecular Sciences (EuCheMS), the German Chemical Society, the Korean Chemical Society, the Mexican Chemical Society, the Royal Society of Chemistry, and the Serbian Chemical Society on their strategic directions and plans for the 2011 International Year of Chemistry.

### TECH Dissolution

At the 2009 spring Council meeting, the Divisional Activities Committee (DAC) reported that it had voted to accept a recommendation from the Division of Chemical Technicians (TECH) that the division disband and to recommend this action to Council in the fall. On recommendation of DAC, as recommended by TECH, the Council voted to disband the Division of Chemical Technicians effective December 31, 2009.

### Nominations & Elections

The following candidates were elected by Council to serve beginning in 2010.

**Committee on Committees:** G.B. Balazs (Lawrence Livermore National Laboratory), D.A. Brooks (Eli Lilly and Company), L.W. McQuire (Novartis Institute), I. Montes (University of Puerto Rico), F.K. Wood-Black (Trihydro Corporation).

**Council Policy Committee:** M.E. Derrick (Valdosta State University), T.R. Gilbert (Northeastern University), W.R. Leenstra (University of Vermont), C. Ribes (Dow Benelux BV).

**Committee on Nominations and Elections:** D.W. Chasar (Emerald Performance Materials), M. Delgado (Florida International University), K.J. Edgar (Virginia Tech), S.P. Shoemaker (California Institute of Food & Agricultural Research), E.B. Stechel (Sandia National Laboratories).

### 2009 Fall ACS National Election

The following individuals were elected as candidates for the 2009 election by Council.

#### 2010 President-Elect candidates:

Nancy B. Jackson (Sandia National Laboratories), Cheryl A. Martin (Rohm and Haas Company/The Dow Chemical Company), Mary Virginia Orna (College of New Rochelle).

#### Directors-at-Large (2010-2012):

D. Chamot (National Research Council), H.N. Cheng (US Department of Agriculture), R.A. Dickie (Ford Motor Company), V.J. Kuck (Lucent Technologies), H.M. Peters (Verny, LLP).

#### Director, District I (2010-2012):

D. R. Cobb (Eastman Kodak Company), N.D. Jespersen (St. Johns University).

#### Director, District V (2010-2012):

J.L. Benham (3M Company), P.K. Dorhout (Colorado State University).

### Petition on Candidate Selection by Member Petition

The Petition on Candidate Selection by Member Petition proposes to permit candidates to be selected by a petition process from members. To be considered for urgent action, the petition required a  $\frac{3}{4}$  affirmative vote. After discussion, a vote to consider the petition at the 2009 fall meeting failed. Absent urgent action, the Petition on Candidate Selection by Member Petition will now be up for action at the 2010 spring meeting of the Council.

### Petition on Election Timelines and Procedures 2009

This petition proposes to shorten certain election timelines and change petition candidates (who go straight on the ballot if they obtain enough signatures) to petition nominees (who need to be screened by Council along with other nominees chosen by the Committee on Nominations and Elections). After rejecting a request to have a recorded vote, the Council voted to recommit the petition to the Committee on Nominations and Elections with instructions. Following this action, N&E sought input through a nonbinding survey to help guide their revisions. A revised petition will likely be up for action at the 2010 spring Council meeting.

Ann Birch, Midland Chemist Editor

## The Midland Chemist—A Changing of the Guard

This is my 70th and last issue as editor of *The Midland Chemist*, and it's the first time I've foisted a column on the readership. That's pretty good! But I think after 10 years in this position I'll ask you to indulge me.

About 15 years ago or so, Gretchen Kohl, a longtime active Midland Section member, asked me to help assemble a teacher affiliate newsletter for chemistry and science teachers. Where she got my name, I never found out and was really not too anxious to ask. I had been a member since 1976, but essentially an inactive one. But working with Gretchen and a couple of very excited teachers opened my eyes to an unbelievable array of science outreach being accomplished by a dedicated group of technical professionals. Some of them I knew, but most I did not. At that time, I had not actually practiced chemistry for about 10 years, having started a technical communications firm and worked as a technical writer and editor after 11 years as a research chemist.

As they say, one thing led to another, and I was elected several years as secretary and later as a director of the Section. At the end of 1999, I took over the editorship of *The Midland Chemist*, following a long line of very accomplished volunteer editors. Shortly after this I also took the positions of webmaster and database

manager. I must admit that there were some really late nights and really early mornings when I wondered what I had gotten myself into. But three things kept me going: (1) I was using my skills to benefit someone else, (2) I had a share in a large number of technical and community projects with worthwhile objectives, and (3) I was working with a great group of people.

I still intend to be active in the Section, but more on a project-by-project basis. I am a firm believer that if the "old guard" never steps aside, the "new guard" cannot come in. And even the most established and successful projects benefit from new ideas and new challenges. So, although we have not yet found a new editor, our assistant editor, Amy Tesolin-Gee, is poised to keep things going with the help of the Section board and committees until a new editor is named. And, of course, I will still be around to help when needed.

If you have not participated in Section activities or have doubts sometimes when that dues notice comes around, I'd like to leave you with a couple of thoughts. A few weeks ago I



attended the ribbon-cutting ceremony at Windover School, celebrating their new chemistry lab, which was initiated by Midland Section members. As I listened to Nancy Vossen and her pride in her new facilities and in her students, then listened to the students and their pride in themselves, I thought to myself, "This half-hour right here is worth my membership dues." Then, late in October, I went to SciFest, which I had never attended before. Among the many families there I saw two small boys in miniature lab coats and goggles, having the time of their lives. And it reminded me of the reason that most of us went into chemistry in the first place—*because it's fun!*

Ann Birch, Midland Chemist Editor

## Midland Section Celebrates New Student Members

In 2009, the Society made a very positive decision to give "student affiliates" virtually all the rights of membership in ACS while still maintaining very low membership dues for this group. These new "student members" (undergraduate college students) can now vote in Society and Section elections and will enjoy other membership benefits as well. The only restrictions on their membership are that they cannot hold Society elective office or Counselor/Alternate Counselor positions. However, if the Section bylaws allow, they can hold elective office in the Local Section. What a great move!

Students in the Midland Section have been very active, not only in their own university groups, but also in community activities with the Section.

CMU hosted an event on November 23 to celebrate these new Section members as well as graduate students who have regular membership. A reception and several speakers started the evening event, which then moved to the Mt. Pleasant Brewing Company for a social and dinner. Another event is planned for January.

*SVSU chemistry students hobnob with witches and other enthusiasts at SciFest.*



Estelle Lebeau, Project SEED Chair

## Project SEED 2009: Building the Future

The ACS Project SEED summer research program opens new doors for economically disadvantaged students to experience what it's like to be a chemist. Students entering their junior or senior year in high school are given a rare chance to work alongside scientist-mentors on research projects in industrial, academic, and federal laboratories, discovering new career paths as they approach critical turning points in their lives. With guidance from mentors, they gain confidence, a solid sense of direction, and the ability to realize their own potential. The program emphasizes career development and encourages students to pursue higher education in the natural sciences, including chemistry and chemistry-related fields.

Students are expected to work from June 15-August 15, approximately 40 hours per week, and participate in all safety training required by Project SEED, Dow Corning, CMU, and/or mentor. They are expected to be good employees—at work every day on time and dressed appropriately for the laboratory environment, with a good attitude toward work and safety. They are encouraged to share any concerns about work with their mentor or the program coordinator. Students are also expected to learn as much as they can about their specific research project and complete surveys and reports concerning their experience.

There was funding within the Section for four first-year (SEED I) students.

### Silvia Diaz-Castro

**Current status:** Costa Rica college freshman – Chemistry major

**Mentor:** Dale LeCaptain, CMU Chemistry Department

**Project:** Conversion of Used Cooking Oils into Biodiesel



Silvia Diaz-Castro (SEED I) working with Mitch Heethuis (CMU undergraduate).

### Sharrae Mills

**Current status:** Buena Vista High School senior, Saginaw

**Mentor:** Stephanie Gathman, Dow Corning

**Project:** Oil and Gas Applications for Silicone

### Nadia Leatz

**Current status:** Mt. Pleasant High School senior

**Mentor:** Dillip Mohanty, CMU Chemistry Department

**Project:** Identification of Reaction By-products

### Ta'leshia Santos

**Current status:** Buena Vista High School senior, Saginaw

**Mentor:** Kevin Lewis, Dow Corning

**Project:** Evaluation of Treatments for Paper



(l-r) La'Rone Reid, Ta'leshia Santos, Tabitha Stauffer, and Trevion Williams.

There were two second-year (SEED II) students who had been SEED I students the year before:

### Angela Cluley

**Current status:** GVSU freshman (supported with a \$5,000 Project SEED scholarship) – Biochemistry and Biotechnology major

**Mentor:** Anja Mueller, CMU Chemistry Department

**Project:** Heavy Metal Ion Removal from Wastewater by Imprinted Polymers

### Tabitha Stauffer

**Current status:** Delta College freshman – Chemical Processing Technology major

**Mentor:** Mike Costello, Dow Corning AETS Paper Industry

**Project:** Investigation of Paper Treatments

Because of funding limitations, some students interested in Project SEED had to be turned away. How-



Angela Cluley (right, SEED II student) working with Anja Mueller (CMU). Angela was chosen as a summer SEED scholar of the year in 2008 (after her SEED I experience) by National ACS.

ever, Dow Corning was so impressed with two additional SEED I applicants during the interview process that they hired these two students, La'Rone Reid and Trevion Williams, as contract workers for the summer (under the same terms as SEED I students). So, effectively, we had two additional SEED students (unofficial) who were fully (100%) paid for by Dow Corning. We sincerely thank the people at Dow Corning for their enthusiasm and support of this program and the students we impact!

Here's what one of the students had to say about their experience:

"Once again I have enjoyed my experience this summer as a Project SEED student. This is my second year and I have learned tons. Thanks to the Project SEED program I have decided to go to college in the science field. This fall I will be starting at Delta to become a Chemical Processing Technician. No matter what, I definitely will stay in the science field."

And...it's not only the students who benefit from and enjoy the program. Here's what one of the mentors had to say:

"It is a pleasure to have [the SEED student] back in the lab again this summer. She has been as effective as many of my undergraduates and graduate students. She has picked up experiments easily and has always asked questions to figure out why and how things work. I am confident of her success in all of her future scientific endeavors."

We hope to add another student to the program next year, and we continue to need mentors. If you would

(Continued on page 6)

(Continued from page 5)

be interested in contributing your time and experience to this very worthwhile educational program, please contact Estelle Lebeau (lebea1e1@cmich.edu, 989-774-3116).

Some special thanks go to the following folks:

- Student participants
- All of the mentors at CMU and Dow Corning
- Bill Schultz and Beth Faust (Dow Corning)
- CMU Chemistry Department and Dow Corning Corporation for covering expenses not related to student stipends and supplying their employees and space to support the students
- Midland Section Board of Directors for their continued support of this worthwhile outreach program

*Ann Birch, MC Editor*

## Midland Section 2010 Meetings

**B**elow are the dates for the 2010 Midland Section meetings for the Board of Directors, all of them on the third Monday of each month, except July, when there is no meeting, and December, when the meeting is on the second Monday.

The meeting location is the Board Room on the lower level of the Midland Center for the Arts.

Board meetings are from 7:00 p.m. to 9:00 p.m. For all scheduled months except December, the time from 6:00 p.m. to 7:00 p.m. is reserved for any committees that wish to meet.

January 18	August 16
February 15	September 20
March 15	October 18
April 19	November 15
May 17	December 13
June 21	

Meeting dates, times, and locations are also on the Section online calendar, which can be accessed from the home page of the Section website ([www.midlandacs.org](http://www.midlandacs.org)). Board and committee meetings are open to all members. If you have any questions about the board or where you could participate in Section activities, contact the chair, Angelo Cassar, 989-631-7128, [angelo.cassar@att.net](mailto:angelo.cassar@att.net).

*Darren Hansen, Dow Corning Corporation and Section Member*

## Diana Deese: 2009 Midland Section "Outstanding Chemical Technician"

**C**ongratulations to Diana Deese, the 2009 recipient of the ACS Midland Section award for Outstanding Chemical Technician. Diana received her award at the Fall Scientific Meeting, which was held at Delta College on October 10, 2009.

Each year the call for nominations searches for technicians who demonstrate superior skill, attention to safety, leadership, teamwork, and communication, including technical publications, to name some of the requirements. Diana has demonstrated these attributes and is an exceptional technical asset to Dow Corning. She has over 20 years experience in supporting applications of chemistry and materials in electronics and semiconductor applications.

Diana has participated in key roles for the development of thin film, integrated circuit, and semiconductor materials products during the last 15 years, all of which have delivered new and successful product launches. In addition, she has established herself as an expert microscopist among her peers and supervisors and has delivered state-of-the-art analysis on polymers, thin films, and semiconductor crystals.

In her current role, Diana has leveraged her skills in thin films and microscopy to play a key role in developing crystal seed polishing and prepara-

tion for use in advanced semiconductor crystal growth at Dow Corning Compound Semiconductor Solutions. Diana participated in the original development and assessment of polishing processes, delivering state-of-the-art performance on semiconductor wafers. The processes were successfully transferred to manufacturing and are in use as part of the current product flow.

Outside of work Diana is committed to the growth and success of young girls through participation in the Midland County Girl Scouts. Diana serves as the Midland Service Area Manager, Midland Product Manager, and Cadette Troop 370 Leader. Diana also has assisted in the corporate United Way efforts at Dow Corning for the last 2 years, including coordinating the Day of Caring activities. The 18<sup>th</sup> Airborne Corps (Ft. Bragg) awarded her the Artillery Order of Molly Pitcher for her technical contributions to field artillery and the support of our troops.

With the skills, dedication, and community effort that Diana has demonstrated, she is clearly an exceptional example of a top tier chemical technician and an ideal recipient of the 2009 award. Please join all of us at Compound Semiconductor in congratulating Diana on this fantastic achievement.



*Diana Deese receiving her award from ACS President Tom Lane (l) and Awards Committee Chair Brad Fahlman.*

Lisa Thackery, Kids & Chemistry Co-chair

## Kids & Chemistry Going Strong on Community Outreach

The Kids & Chemistry Committee continues recruiting and participating in science outreach activities throughout the area. Volunteers recently took part in SciFest at TheDow Event Center on Halloween where they presented demos following the National Chemistry Week theme, "Chemistry – It's Elemental!" A series of experiments entitled "Elemental Encounter" included activities with carbon, silicon, copper, nickel, and silver. K&C's booth at the event also had an elemental quiz and a pun puzzler based on the periodic table.

Two recent "demo trainings" held at QuadSil and Dow Corning focused on practicing the "Elemental Encounter" demos to prepare for SciFest. Kids & Chemistry plans to continue these demo trainings with the goal of helping volunteers gain comfort with different materials and presenting; networking and sharing alternate versions of experiments that work with different age groups, audiences, and settings; and ensuring ACS safety policies are passed along. The next demo training is currently being planned for the second week in December where Mike Ferritto, chair of the Project Science Literacy Committee, will be walking the group through experiments found in "Bringing Science to Life." These demos are used in workshops for teachers to help supplement their science lessons and supply them with experiments that can be easily performed in a classroom setting.

Other current K&C activities include "Camp Chemistry: COLOR!" a Saturday workshop for Girl Scouts on November 14 at CMU. And soon, lunchtime and afterschool sessions in conjunction with the Big Brothers Big Sisters Teaming Up With YOUth program will be underway where volunteers are needed to help facilitate experiments with elementary and middle school students and their mentors at various schools in Midland, Gratiot, and Isabella counties.

Planning is in progress for similar participation in the Saginaw Community Foundation's Youth First afterschool program. Additionally, in Bay City after the holidays, teachers at Handy Middle School will need mentors for the Science Olympiad practices. ACS has also been asked to help judge student entries and host a booth at the Bay City Science Fair again in the spring. And in Midland, Kids & Chemistry is planning on having an interactive booth at the "Kids Day at the Mall" event on Jan. 23.

On the recruitment front, Kids & Chemistry recently participated in both Dow Chemical and Dow Corning retiree events

to seek involvement from members of those groups. In order to continue participation in community and school activities, we are looking for volunteers to help in any of the above venues with kids. Please consider participating in an event that may interest you in your area and that works with your schedule.

Check the Midland Section online calendar for times, dates, and locations if interested in joining us for demo trainings or scheduled events (<http://www.midlandacs.org>). Please contact [lisa.thackery@dowcorning.com](mailto:lisa.thackery@dowcorning.com) or [gina.malczewski@dowcorning.com](mailto:gina.malczewski@dowcorning.com) for further information.



Kids in costume visited the K&C booth at SciFest to get an "elemental" view of chemistry.

### National ACS

## ACS Offers Special Benefits for Unemployed Members

During these tough economic times it's more important than ever to belong to the American Chemical Society. Unemployed members can tap into a host of valuable benefits and services that help them get back in the workforce. And, members in good standing may qualify for an unemployed member dues waiver, allowing them to renew their memberships and keep their member benefits at no cost. Contact ACS at [service@acs.org](mailto:service@acs.org), 800-333-9511 or 614-447-3776 for complete details.

Other valuable benefits that help unemployed ACS member get back in the workforce include:

- Free registration at ACS National Meetings and greatly reduced registration fees at Regional Meetings. Many meetings offer ACS Career Fairs with on-site interviews.
- Special discounts for ACS/Harvard online courses, ACS ProSpectives and Short Courses, and the ACS Leadership Development System.
- Membership in the ACS Network, your online resource to connect and communicate with friends,

colleagues, and potential employers.

- Free Guidance from ACS Career Consultants – ACS mentors offer resume reviews, job search strategies, and interview tips that make you stand out from the rest.
- Free access to InterviewStream, an online tool that will sharpen your interview skills
- Members-only access to the ACS Salary comparator. And more!

Let us know how we can help.

Gerard Nowaczyk, MMTG Chair

## Member Activities, Outreach Keep MMTG Busy

The Mid-Michigan Technician Group has kept its docket quite full of activities. Since our last Midland Chemist article about collecting for backpacks for local school children in need, MMTG has held a well-attended "lunch and learn" training session on creating Excel charts and graphs that attracted some new members and others who discovered new ways to sharpen their skills with software that all of us use so regularly. With the information the session provided, the attendees now have the ability to create an impact with their data.

After MMTG won the National ACS award for Best Overall Technician Affiliate Group at the ACS Fall National Meeting in Washington D.C., a mini celebration was held at our September meeting, and we plan on continuing this celebration of a job well-done at our end-of-the-year member appreciation luncheon to be held the first week in December. Although the details are still pending it looks like this luncheon is going to close out another outstanding year with considerable fanfare. Also at the National Meeting Debbie Bailey was awarded the ACS Salute to Excellence award for her contributions to the technician community, which are numerous. Thanks, Debbie, for all you do and congratulations on your award!

The October Fall Scientific Meeting proved to be another great event where MMTG seized the opportunity to support the Midland Section by providing many volunteers to make the day the success that it was. MMTG presented its poster highlighting its successes with slides jam-packed with its contributions to improving the careers of its mem-

bership. This day was capped off by our very own MMTG secretary Diana Deese receiving the Technician of the Year Award. What an impressive career she has had! Congratulations, Diana, for winning this well-deserved award.

National Chemistry Week was cele-



The MMTG booth, manned by Jason Suhr, MMTG Treasurer, and Gerard Nowaczyk, MMTG Chair, with his daughter Hannah (with backs to the camera), is honored by a visit from the esteemed "father of modern chemistry" M. Lavoisier (a.k.a. Midland Section Chair-elect John Blizzard).

brated by our members in many ways, one of which was our SciFest table staffed by MMTG board members,

proving that fun and chemistry are elemental. Once again our own Dave Stickles (a.k.a. Ironman) and the rest of the SciFest committee put on a great show for the community. On November 2<sup>nd</sup> MMTG hosted an event for the ACS-sponsored program for Enhancing the Chemical Technology Workforce for 2015 and Beyond by having Dr. W.J. (Jack) Kruper, Corporate Fellow at Dow Chemical, speak to the students of Delta College's Chemical Technology Program on "Alternative Feedstock Considerations for the Production of Specialty and Commodity Chemicals." This was attended by several classes with about 60 people learning how Green Chemistry can be an economically attractive alternative and what our area is doing to move from the current propylene-based process to new alternative methods.

Every year MMTG joins the Salva-

tion Army and sponsors a family for the annual Adopt-a-Family program during the holiday season. Without fail MMTG over the last 3 years has surpassed expectations by collecting more and more money, allowing us to either sponsor more families in need or larger families who often get left out due to size. Once again MMTG's Outreach Committee is fully staffed and up to lending a helping hand to those in need in our community. We therefore at this time solicit all your support as well as invite you to join us in this undoubtedly worthwhile cause. You may contact one of our program coordinators Deb Mendrick (dmendrick@dow.com, 989-638-3094) or Amy Tesolin-Gee (amtesolin-gee@dow.com, 636-1903), or me (gerard.s.nowaczyk@dowcorning.com, 496-3613) to either offer your assistance in this program or your financial contribution. Although the deadline is November 30, which may come before this MC issue is published, MMTG could still use your assistance with gift preparation.



Yes, that's MMTG and ACS member and director Dave Stickles as IRONMAN, wielding his mighty smoke cannon at



Dave Baker, Midland Chemist Staff; Ann Birch, Midland Chemist Editor

## Fall Scientific Meeting Attracts Scientists, Educators

The Fall Scientific Meeting, typically held in October each year, is the premier science and technology meeting for the Section. The meeting has been held, excepting one year, since 1945. It is organized by Section members and attended by scientists, college faculty, high school teachers, college students, and other people from a variety of organizations such as Central Michigan University, Saginaw Valley State University, Alma College, Delta College, and Michigan Molecular Institute in addition to Dow Chemical and Dow Corning.

The 65th Fall Scientific Meeting was at Delta College on October 10, 2009. The theme for this year's meeting was "Advancing Chemistry through Science Education." Over 120 members and educators registered for the meeting. In the morning there were two keynote addresses. The first address, "The Chemistry of Advocacy," was presented by Glenn Ruskin, the ACS Director of Public Affairs. This talk pulled together all the various pieces of ACS advocacy to give participants an overall understanding of how ACS policies are created, communicated, and advocated and explained how ACS priorities fit into the larger legislative environment in Washington D.C. The second keynote address, "ACS: Serving Learners and Educators," was given by Mary Kirchhoff, the ACS Director of Education. Mary talked about the challenges and opportunities facing science education today and highlighted the education resources of the American Chemical Society using the

five goals of the Education Division strategic plan as a framework.

### Poster Session and Vendors

The morning session was rounded off with the traditional poster session and vendor booths. Twenty-five posters lined the halls of the meeting venue, initiating much interest and discussion. The recipient of the \$50 prize and certificate for the best student poster was Rajith Madushanka, Central Michigan University, for the poster entitled "Investigation on CdS Quantum Dots Stabilized by Various Thiocapping Agents." Rajith's coauthors were Adam Jankovich and Minghui Chai. Eight companies contributed generous support for the meeting and provided a vendor exposition.

### Symposia

In the afternoon there were three break-out symposia; the first was "Every Dipole Has Its Moment," which consisted of nine high school and/or college level presentations of 20 minutes. The newly initiated Thomas H. Lane Science Education Award was presented to the student with the best presentation. The award consists of a plaque and a check for \$500 and was given to I. Harrier from Alma College. The title of his talk was "New Synthetic Strategies for the Generation of Regiospecifically Substituted Icosahedral Boranes."

The second symposium, "Keep Your Ion on the Ball: Advancement in Science Education," had a number of objectives, including providing information to local teachers, parents, and inter-

ested parties about activities promoting advancement in science education. The talks also provided opportunities for teachers to have peer-to-peer discussions with each other and the speakers regarding activities to promote science education.

The first presenter was Cari Herrmann-Abell, with the American Association for the Advancement of Science (AAAS). Her talk focused on assessment and instruction aligned to science content and standards. This is part of AAAS Project 2061 to advance literacy in Science, Mathematics, and Technology (STEM). Cari discussed creating middle and early high school science assessment items that are precisely aligned with national content standards and developing resources to support the creation and use of these types of assessment items. Cari explained the importance of feedback obtained from students during pilot testing and from experts during a review of the items. After revisions are made based on the feedback, the items are field tested on a large national sample to determine the psychometric properties of the items. There were a number of questions of how to handle student misconceptions and problems with designing clear and phenomenon-specific questions.

"Creative Science for the Classroom" was the title of the second presentation given by Bernadette Harkness from Delta College. Bernadette explained the importance of sto-

(Continued on page 10)



Section Chair Angelo Cassar and Alternate Councilor Gretchen Kohl flanked by keynote speakers Glenn Ruskin and Mary Kirchhoff.



The poster session prompted good discussion and a chance for attendees to meet and network.

(Continued from page 9)

ryboards and animation exercises to increase student understanding of macroscopic concepts. She explained how the development of these exercises compels students to incorporate the particulate view of matter with important concepts in chemistry. After this the session broke out into a hands-on workshop where attendees participated in nano-construction using Knex kits and oven mitts, observing memory metal (nitinol) in action, and handling magic sand in an aqueous environment. The attendees were given a CD with explanations of all the workshop experiments and activities as well as a copy of the Chemsense software. There are still copies remaining; if you would like this material you can contact Bernadette Harknes at [bernadetteharknes@delta.edu](mailto:bernadetteharknes@delta.edu).

The final presentation in the series was by Janice Hall Tomasik from Central Michigan University. The title of her talk was "Researching Inquiry-Based General Chemistry Labs and Online Learning at Central Michigan University." In the first part of this presentation new lab experiments were described that were developed to incorporate authentic research-based experiences that highlight CMU faculty research. Janice explained the problems and steps necessary to implement laboratory experiences that allow students to learn important concepts. She also discussed a pilot test with two students and the survey created to assess impacts on student learning. The second part of Janice's presentation focused on an online continuing education nanoscience course for teachers, the problems and success encountered, and the results of a survey given to participants a year after completing the course.

The third symposium, "Promoting Excellence in Science Education and Community Outreach," featured a talk on "Chemistry and the Food Scientist," presented by Julie Lorenz and Jeff Paxhia with the Kellogg Company of Battle Creek. This presentation provided interesting insights into the food manufacturing industry. Attendees took part in sensory testing and learned about the chemistry behind food development and testing. Julie and Jeff also discussed food industry education and careers available in the food industry, many of which were unfamiliar to attendees.

The second talk was titled "Pyrotechnics - What You Should Know about Fireworks" and was presented by Jim Malek of Wolverine Fireworks. Jim covered the history of the development of fireworks and the chemistry behind the brilliant displays at community events. He also talked about the manufacture of fireworks and current safety issues.

The third talk, presented by Elaine Dougherty, Bridgeport Forensics Laboratory, was titled "A Day in the Life of a Forensics Scientist." Elaine discussed the daily operations of a forensic laboratory, the education and qualifications required to become a forensic scientist, and the use of chemistry in solving crimes. An interesting side topic included examples of the inaccuracies of the currently popular forensic-based crime programs on TV.

#### Awards

The day ended with the presentation of awards. Both the Thomas H. Lane Science Education Award and the Best Student Poster Award were covered above. Two awards usually presented at the Fall Scientific Meeting were not presented this year: Outstanding Achievement and Promotion of the Chemical Sciences and Outstanding Service to the American Chemical Society. The remaining two awards, Outstanding Chemical Technician and Longtime Members, are covered on pg. 6 and 13, respectively.

#### Many thanks to the FSM team for a great meeting!

*Co-chairs:* Susan Rhode, Matt Gave

*Website:* Ann Birch

*Facilities:* Matt Gave, Joan Sabourin

*Programs:* Ann Birch

*Finances:* Dave DeShazer

*Registration:* Anthony Lucio, SVSU Chemistry Club

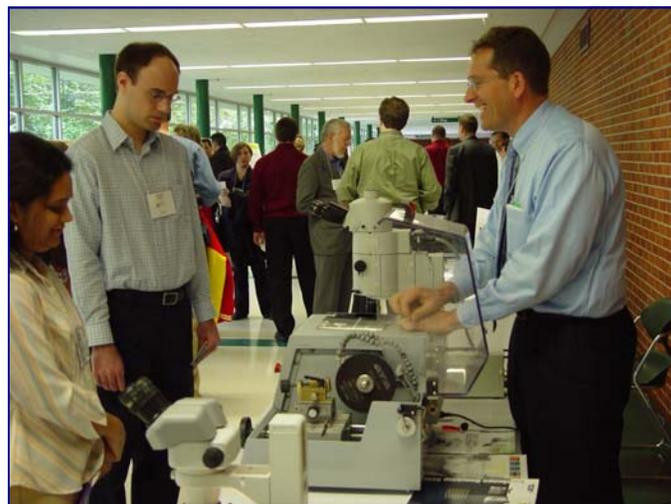
*Keynote speakers:* Susan Rhodes, Matt Gave

*Posters:* Dave Witker

*Vendor booths:* Jennifer Stasser, Eric Joffre

*Food and beverages:* Matt Gave

*Symposia:* David Baker, Brad Fahlman, Kevin Wier



The vendor booths at the Fall Scientific Meeting were well attended with many questions about the newest developments in equipment

*Awards:* Brad Fahlman, Susan Rhodes  
*Publicity:* Andrea Alexander, Ann Birch  
*Photography:* Andrea Alexander, Jennifer Stasser

#### National ACS

## Earth Day 2010

The ACS Office of Community Activities (OCA) would like to remind you that ACS will celebrate Earth Day on April 22, 2010.

The theme for 2010 is "Plants - The Green Machines!" The 2010 edition of *Celebrating Chemistry* will be available online through the CCED home page in late January. It will contain hands-on activities and articles geared for students in grades 4-6. The CCED Order Forms will also be primed and ready to receive orders in early January. Email updates regarding the order form and other relevant CCED information will be on the way soon. So get a head start on planning your activities for Chemists Celebrate Earth Day 2010! Stay tuned to [www.acs.org/earthday](http://www.acs.org/earthday) for updates and the latest information as CCED is soon approaching!

*Section contacts for Earth Day are Gretchen Kohl (989-631-7128; [gretchen.kohl@dowcorning.com](mailto:gretchen.kohl@dowcorning.com)) and Angelo Cassar (989-631-7128; [angelo.cassar@att.net](mailto:angelo.cassar@att.net)).*



Dave Stickles and Joan Sabourin, SciFest Co-chairs

## SciFest Adds Fun and Science Education to Halloween

The Midland Section of the American Chemical Society celebrated National Chemistry Week and the 140th Anniversary of Mendeleev's Periodic Table with its partners, the Mid-Michigan Technician Group, Delta College, and the Spirit Hockey Club on October 31, 2009, at TheDow Event Center in Saginaw, MI. SciFest 2009, a free hands-on science activity event, open to all, was held in Unity Hall from 3:30 pm to 6:45 pm. This was followed at 7:11 pm with a hockey game between the Saginaw Spirit and the Windsor Spitfires that ended with a shoot-out and the Spirit winning by one point.

During SciFest, several ACS, Midland Section, MMTG, Delta College, and Community groups provided hands-on activities related to the theme "Chemistry – It's Elemental." Several exhibitors and participants came dressed in costumes related to elements and families with their children were encouraged to dress up.

A partial list of participants includes:

- Saginaw Valley State University Chemistry Club
- Delta College faculty and students
- Midland Section ACS - Wendell Dilling
- Midland Section ACS - Kids in Chemistry
- Midland Center for the Arts - Alden B. Dow Museum

- Mid-Michigan Technician Group
- Chippewa Nature Center
- Dr. Slime

Some of the hands-on activities included:

- An "elemental" word search for students
- Building simple/elemental molecules out of polystyrene foam and toothpicks.
- Metals and magnetism
- Dry ice, silly putty, electricity, liquid nitrogen
- Experiments on pH
- Chemical elements in track and field implements
- Nickel in jewelry
- Silver (Tollen's reagent)
- Silicon
- Element puns
- Spectrum lightbox – The Secrets Hidden in Sunlight!
- Elements of fun
- Specially designed "Saginaw Spirit Hockey Team as Elements" activity booklets prepared by S. Pederson and G. Kohl; PowerPoint game answers prepared by Joan Sabourin
- NCW "Celebrating Chemistry" newspapers
- Glow sticks (an article on glow sticks and luminescence was included in the activity booklet.)

The Saginaw Spirit Hockey Club donated rental of Unity Hall at TheDow



Midland Section ACS up in lights at the Saginaw Spirit game. The screens broadcast the presentation of the Salute to Excellence Award.

Event Center, printing of 1000 flyers, printing of 500 activity booklets, Spirit logo children's hoodie and T-shirt, adult cap, and Zamboni rides for four students. During the game intermission, there was a costume parade that included those with costumes related to an element. Parade participants were presented with medals that had the Saginaw Spirit and ACS National Chemistry Week, October 31, 2009, on one side and a hockey stick on the other. Inflatable hockey sticks were passed out to the younger hockey fans, as were 600 glow sticks. Two male and two female elementary/middle school students were chosen to ride the Zamboni. During intermission, a Salute to Excellence was presented to Sammy Spirit, the main Spirit mascot, which stated: The Midland Section of the American Chemical Society in a Salute to Excellence presents this recognition to Saginaw Spirit Hockey Club for your energetic promotion of science education outreach to the community and specifically to local K-12 school classrooms, and for hosting the ACS National Chemistry Week SciFest 2009 "Chemistry - It's Elemental."

If you missed this fun event, you can still get the activity booklet and game answers linked from the Midland Section website home page, <http://www.midlandacs.org>.

SciFest Team: Dave Stickles and Joan Sabourin, co-chairs, Gretchen Kohl, Gina Malczewski, Angelo Cassar



Yes, that's our own Gina Malczewski in the striped witch's hat working the Kids & Chemistry exhibit. Magical...but not a bit scary.

Tom Lane, President ACS

## 2009 – What a Year!

Photo Credit: Peter Cuttis Photography



**F**riends, let me begin by thanking you for the most incredible year of my life. This year, as president of the world's most vibrant

and important scientific society, I have been afforded opportunities and experiences that I could not have dreamed of even one year ago. With your support, we are rebuilding the organization, strengthening membership, adding new members, and most importantly, making a difference. We have collectively made a difference in STEM education and public policy as they relate to science and investments in R&D, and we are building new friendships across our communities and the globe.

As I reflect on the pledges that I made to you in my campaign (Education, Relationships, and Outcomes) I can honestly say I feel good about the progress we have made on all fronts. I am confident that all of us in the presidential succession will continue some of the essential work which was begun this year, helping to ensure that the Society will not lose momentum in the critical areas of education and relationship building. Building new and productive friendships within our communities not only helps revitalize and refresh the public face of our discipline, it reinforces our vision and helps fulfill our obligations under our congressional charter. I am grateful to all of you for your constant support, encouragement, and action which have led to a successful year in this office.

Since my last communication with you, the presidents and CEO from the three major societies for underrepresented chemists and engineers, the American Indian Science and Engineering Society (AISES), the Society for Advancing Hispanics/Chicanos & Native Americans in Science

(SACNAS), and the National Organization for the Professional Advancement of Black Chemists & Chemical Engineers (NOBCChE), attended the Washington national meeting as my special guests to reinitiate a dialogue around our combined roles in broadening participation in the chemical sciences and working together for the common good of our discipline. Their time, passion, and commitment are greatly appreciated and will play a critical role in our associations remaining premier advocacy organizations for participation in the sciences by diverse and traditionally underrepresented groups. I attended the AISES annual conference in October and had the incredible honor of being inducted as a Sequoyah Fellow at the annual AISES



*Outreach event at the Boys and Girls Club in Washington D.C. (l-r): J. D. Garcia, President, SACNAS; Pamala Silas, CEO, AISES; Victor McCrary, President, NOBCChE), Tom Lane, President, ACS*

conference. ACS President-Elect Joe Francisco and I have also created a Presidential Task Force on Diversity based on reports from workshops on increasing participation of African American, Native American, and Hispanic undergraduate students in chemistry.

I met with representatives from EuCheMS, IUPAC, the Federation of African Chemical Societies, the Federation of Asian Chemical Societies, the Chinese Chemical Society, the Canadian Chemical Society, the Society of Chemical Industry, and the Royal Society of Chemistry to explore potential collaborations, share best

practices, and build new friendships. Learning to work together across borders, cultures, and disciplines has never been more critical to our success. From these discussions with our international counterparts, there are at least two memoranda of understanding that will be signed before the end of the year solidifying our relationship with our sister societies. I am pleased to inform you that based on a brief conversation with the president of the Serbian Chemical Society, Dr. Ivanka Popovic, we are already moving forward with an effort to repurpose teacher training materials (created by the Midland Section) for use by Serbian K-12 science teachers to help excite and engage children in the wonderment of science. These materials

will be translated into Serbian and used as a teaching guide to safe and effective experiments which can be done with materials from the local grocery stores with educational outcomes tied to local curriculum. This is an exciting international experiment which could serve as the pilot for other exchanges across the planet.

On a personal note, the men and women of the Society have been absolutely wonderful to me and I cannot thank you all enough for the genuine friendships that have been formed this year. Equally important have been the students. I have had the opportunity to meet with students from around the world and, without exception, they are bright, engaging, fun-loving professionals who will

carry our discipline safely into the future. I cannot underestimate or overstate how proud I am of all of our student members; they are our future and I believe that our future will be bright and focused on helping people.

My friends, I am proud to have served as your 2009 president; improving people's lives through the transforming power of chemistry. I pledge my full support to Joe Francisco and to Nancy Jackson, 2010 ACS President-Elect. We will work together to further the goals of the Society and to continue to enhance the public image of chemistry. Thank you for this great honor.

Peggy Hill, Midland Chemist Staff

## Longtime ACS Members Honored

Each year, the Midland Section recognizes members who are celebrating their 50-, 60-, or 70-year affiliation with ACS. The members and officers of the Midland section would like to acknowledge these milestones and the many contributions made by these individuals to the field of chemistry. *Editor's Note: Summaries are given for members for whom we have received information. If information is available for members who do not have summaries below, please forward the information to the editor and we would be happy to publish it. Thank you!*

### Seventy-Year Members

Seventy-year members include Dr. Lester Dankert, Dr. Giffin Jones, and William Kuhlman.

### Sixty-Year Members

Sixty-year members include William Fagley, Dr. Richard Hall, Dr. William Nummy, Dr. Charles Roberts, Dr. Gerard Sinke, and Louis Wirth Jr.

**Dr. Richard H. Hall** began his formal education in chemistry and chemical engineering as an undergraduate chemistry student at the University of Akron in 1944. His studies there were interrupted by his enlistment in the U.S. Marine Corps from 1944-46. When he returned to the University of Akron, he subsequently transferred to Case Institute of Technology in 1947, where he earned a B.S. in chemical engineering, graduating with honors in 1950. He then went on to graduate work at the University of Delaware, where he earned an M.S. and Ph.D. in chemistry, finishing in 1953.

From there, Richard landed first at Sun-BFG working on PVC foam and polymerizable plastics, but within the year moved to The Dow Chemical Company. He made Dow his career home for the next 38 years, where he pursued polymer research as a project leader in the Plastics Department Research Lab and later as a group leader in the Coatings and Monomers Research Lab. By the time he retired from Dow in 1992, Richard's work had generated a total of 35 U.S. patents and 65 foreign patents.

Not two weeks following his retirement from Dow, Richard joined Savant as an associate. A year later, he joined Imbibitive Technology Corpora-

tion (ITC). He currently serves as President and Director of Research for Imtech Research and Development. His work at both Savant and ITC has generated 11 U.S. patents with several more currently pending. Richard writes that he is not retired, but works most days at Imtech R&D.

Richard and his late wife of 53 years, Wilma, raised two sons during their years in Midland—Daniel F. Hall, who is a lab manager at Imtech R&D, and Richard R. Hall, M.D, residing in Kansas. Additional family includes seven grandchildren and 3 great-grandchildren.

Richard has been an active participant in numerous community organizations, serving as an assistant scoutmaster for Troop 65, as Scout Commissioner for Bullock Creek, and as a lesson reader at Zion Lutheran Church in Freeland. He maintains memberships in ACS, AIChE, ASTM, Alpha Chi Sigma, and Sigma Xi. Richard resides in Midland.

**Dr. Charles B. Roberts** began his chemistry education at the University of Alberta (Edmonton, Alberta) where he earned a bachelor's degree in 1940. He then headed to the University of Arkansas (Fayetteville), where he completed a master's degree in 1950. Moving north again, he worked on his Ph.D. at the University of Illinois (Champaign), graduating in 1956.

Charles joined The Dow Chemical Company in 1956 as a chemist developing gas chromatography methods in the ARPA Program in the Research Chemicals Laboratory. He went on to become a senior research chemist in the Electro and Mechanical Research Lab and manager in the Inorganic Chemicals Quality Control Laboratory. Charles retired in 1982.

Now, Charles and his wife Lowande spend their time between Michigan in warmer seasons and Florida in winter. They like to travel and also spend time in their two U.S. homes. In his free time, Charles enjoys repairing radio and television sets, gardening, woodworking, and music.

### Louis F. Wirth, Jr.,

enjoyed a long career in chemical engineering that began at The Dow Chemical Company in the mid-1930s. There, he made contributions in various laboratory and supervisory capacities ranging from analytical chemistry, power plant functions, first uses of Dow's ion exchange resins, and design of Dow's first silica removal demineralizer. Louis did all of this without a college degree, although he completed a study in chemical engineering by correspondence in 1940.

During his early years at Dow, Louis became involved with promotional plans for Dow's new resins for water treatment, especially for power generation. This ultimately prompted his move to Nalco Chemical Company after 16 years at Dow. At Nalco, he worked with ion exchange resins, which were marketed to equipment manufacturers for use in the process industries such as paper manufacturing and oil refining that relied on steam.

Louis writes that Nalco encouraged ACS activity, and by 1965 he had become chair of the Division of Water and Sewage Chemistry, which was active in the Chicago area. The division disseminated research abstracts and articles among its members, eventually finding support from the ACS, which began publishing these pieces under the journal title *Environmental Science and Technology* in 1967. Not long after, the division name was changed to Division of Environmental Chemistry. Louis jokes that the Water had evaporated into the Environment. He received a Distinguished Service Award from the division in 1975.

In 1969, after 20 years at Nalco, Louis returned to Dow as a marketing manager. He contributed to establishing the training and instructional literature that accompanied the distribution of ion exchange resins that had become vital to the power industry. The American Society of Mechanical Engineers (ASME) recognized Louis's



(Continued on page 14)

(Continued from page 13)

contributions by electing him an ASME fellow in 1977.

Louis retired from Dow in 1981, but continued as a consultant to the Nuclear Division of the Electric Power Institute for another 12 years. During this time, he compiled his wealth of knowledge about the use of ion exchange systems for power generating systems into a book entitled *Behind the Scenes: An Epoch on Water Chemistry and Ion Exchange Technology for Thermal Power Generation as Practiced 1934-2004*. Louis donated his library of papers and books on the subject to the research library of Chris Schilling, Professor of Mechanical Engineering at SVSU.

Louis, now 92, and his wife, Helen, age 94, are preparing to leave their home in Midland to relocate at an assisted living facility to be closer to family.

#### Fifty-Year Members

Fifty-year members include Dr. Oswald Anders, Dr. Eugene Moore, and Richard Nyquist.

**Dr. Eugene Moore** spent 33 years as a chemical engineer at The Dow Chemical Company, working in re-

search, development, and plant design. His career at Dow resulted in 47 U.S. patents. Following his work at Dow, he went to SRI and SRI Consulting as a senior consultant specializing in technology evaluation.

Eugene's formal education began with his matriculation at Delta College in Bay City, where he earned an associate of science degree in 1953. He went on to complete two B.S. degrees at Michigan Technological University in 1956—one in chemistry and the other in chemical engineering. Eugene left Michigan to pursue doctoral education at Case Western Reserve University in Cleveland, Ohio, finishing a Ph.D. in chemical engineering in 1962.

Even after retiring from Dow, Eugene has remained active in research, developing neuropeptide patents and business consulting in plastics and process.

Eugene and his wife Barbara raised two sons and two daughters and now have two grandchildren. The Moores live in Midland.



**Richard A. Nyquist** has a forty-one year history with The Dow Chemical Company, retiring in 1994 from his position as a senior research scientist specializing in infrared and Raman spectroscopy. Richard began his career at Dow in 1953.

After retiring from Dow, Richard took up consulting at the Michigan Molecular Institute (MMI), where he continues to serve as an adjunct professor and subject matter expert in infrared spectroscopy.

Richard earned a B.A. in 1951 from Augustana College in Rock Island, Illinois, and an M.S. from Oklahoma State University in Stillwater in 1953. He completed a Ph.D. at Utrecht University, The Netherlands, in 1994.

Richard has published two sets of books on infrared, Raman, and nuclear magnetic resonance spectroscopy and continues with consulting. In his free time, he enjoys an occasional round of golf and taking off for a traveling experience with his wife Irene. The couple makes their home in Midland.



Wendell Dilling, Section Historian

## In Past Issues of *The Midland Chemist*

### 40 Years Ago This Month

In *Wymore Wins Chairman-Elect*: "Dr. C. Elmer Wymore of the Dow Chemical Company won the Midland Section election as chairman-elect for 1970, as announced by Harold Doorenbos, chairman of the election committee. There were 519 ballots cast, which accounts for 46.5% of the membership. A record number of members voted last year, with 50% of the ballots having been returned." (Note: For comparison the 232 valid ballots cast in the 2008 election represented a 33.2% return.)

### 30 Years Ago This Month

In *Words from Washington* by Wendell L. Dilling, Councillor: "The Society Committee on Publications (SCOP), of which the author is a member, discussed the possibility of new journals for petroleum chemistry and the history of chemistry. SCOP recently had considered starting a new journal on computational and theoretical chemistry, but chose not to on the advice of a large majority of scientists in this field, many of whom

deplored the proliferation of new journals. Ironically, a few of these same scientists have joined the editorial board of a new *Journal of Computational Chemistry*, which John Wiley and Sons, Inc., expect to initiate in 1980."

### 20 Years Ago This Month

In *1990 ACS Central Regional Meeting* by Dick Van Effen and Pat Dreyfuss: "The 22nd Central Regional Meeting of the American Chemical Society will be held June 6-8, 1990 at the campus of Saginaw Valley State University. The meeting is being hosted by the Midland Section of the ACS. Patricia Dreyfuss from MMI is the general chairman, Donald R. Petersen from Dow Chemical (retired) is vice-chairman, and Karl Lindfors from CMU is secretary. Other committee chairpersons are listed below along with their picture. Nedeljko Gvozdic (Finance), Peter Dreyfuss (Technical Program), W. M. (Charles) Lee (Technical Program), Linda D. Kennan (Social Program), Marion H. Whittaker (Special Activities), Roger W. Bergman

(Exhibits), Richard M. Van Effen (Publicity), Steven E. Keinath (Printing), Linnaeus C. Dorman (Registration), Robert L. McGee (Meeting Facilities), Steven A. Snow (Housing and Meals), George W. Eastland (Transportation)."

### 10 Years Ago This Month

In *A Hero in Chemistry Dies but, His Legend Lives On* by Dr. Thomas H. Lane, Research Scientist, Dow Corning Corporation: "One of the great heroes in chemistry died in his home on Marco Island, Florida, Monday, October 11, 1999 at the age of 96. Dr. J. Franklin Hyde, the father of modern silicone chemistry and technology, was remembered at his interment, October 30, 1999, while the participants of the Midland Section ACS Fall Scientific Meeting remembered him with a moment of silence. This simple man, who was slight of stature, was a technical giant. His achievements touch us all. He will be remembered as a scientist, a husband and father, and as a gentle caring man."



LESS	Cost - Quality - Time	MORE
<p><b>FAST-TRANS™</b> Machine Translation (MT)</p> <ul style="list-style-type: none"> <li>• Fastest turnaround</li> <li>• Lowest cost</li> <li>• Rapid document screening</li> <li>• "Gist" type translation</li> <li>• Text only</li> </ul>	<p><b>KWIKTRANS™</b> Machine Aided Translation (MAT)</p> <ul style="list-style-type: none"> <li>• Human post-edit of MT</li> <li>• Better quality than Fast-Trans</li> <li>• 80%-90% of full human quality</li> <li>• Charts, Tables, Graphs</li> </ul>	<p>Human Translation (HT)</p> <ul style="list-style-type: none"> <li>• Best quality</li> <li>• Native language translators</li> <li>• Subject Matter Experts</li> <li>• Competitive rates</li> <li>• Volume discounts</li> </ul>

**MT/MAT Languages:**

- Arabic
- Chinese
- Dutch
- French
- German
- Greek
- Italian
- Japanese
- Korean
- Portuguese
- Russian
- Spanish
- Swedish



Convert PDF Image / Hardcopy → TEXT

**Customized requests:**

- Claims by Human, rest by MT
- Claims and Examples by Human
- Pages 2-4 by Human, rest by MAT
- Claims ONLY
- MT today, HT in two weeks

Optimize your research by applying precision only where you need it!

Over 70 languages available for Human Translation – Patents, MSDS, Contracts, Package Inserts, Labels...

Telephone interpreting 24/7 available in 150 languages

**Request a translation TODAY!**

**WWW.GLTAC.COM**

**877.68TRANSLATE**

**877.688.7267**

# Midland Section Sponsors



Living.  
Improved daily.

*The Midland Chemist* is published six times a year by the Midland Section of the American Chemical Society.

American Chemical Society  
Midland Section  
P.O. Box 2695  
Midland, MI 48641-2695  
<http://www.midlandacs.org>

Please submit all articles and photographs to the editor. An editorial calendar and instructions for article submission are on the Midland Section website on the Communications|Newsletter menu.

Neither *The Midland Chemist*, nor the Midland Section, nor the American Chemical Society assumes any responsibility for the statements and opinions advanced by contributors of or to *The Midland Chemist*.

©Copyright 2009 Midland Section of the American Chemical Society

### Volunteer Staff

Ann F. Birch..... Editor  
989-832-7485  
[newseditor@midlandacs.org](mailto:newseditor@midlandacs.org)  
Amy Tesolin-Gee .....Assistant Editor  
Dave Baker.....Writer  
Peggy Hill.....Writer

The Midland Chemist is now primarily available online with publication notification by e-mail. If you are currently receiving The Midland Chemist as a hardcopy, this means we do not have an e-mail for you. If you do have e-mail and would prefer to get the publication electronically, please notify the Editor at [newseditor@midlandacs.org](mailto:newseditor@midlandacs.org). However, if you do not have e-mail, we are happy to provide the publication as hardcopy. If you have questions about events and only electronic communication information is listed, feel free to contact the Section Chair, Angelo Cassar, at 989-631-7128.

Place postage  
here

AMERICAN CHEMICAL SOCIETY  
Midland Section  
P.O. Box 2695  
Midland, MI 48641-2695  
RETURN SERVICE REQUESTED