



Professor Stephen Z.D. Cheng, The University of Akron, is the 2007 Turner Alfrey Visiting Professor at Michigan Molecular Institute. See page 9.

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Volume 44, Number 3 June 2007

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Chair Column

Up for a Challenge?

A few weeks ago, our American Chemical Society section hosted the Spring Science Education Recognition Dinner. I'd like to thank our Awards Committee members—Minghui Chai, Petar Dvornic, Mike Ferritto, Steven Kaganove, Steve Keinath, Debra Mendrick, Pamela Slavings, and Mary Tecklenburg—and in particular Scott Gaynor who chairs the Awards Committee. These are the folks who work very hard to solicit nominations for our awards, select and notify the winners, and organize the wonderful banquet.

If you haven't looked on the National ACS website lately, the ACS has issued a 2007 Strategic Direction document in which it states that one



Dee Strand, Chair ACS Midland Section

goal of the organization is that "ACS will be renowned worldwide for its leadership in enabling the scientific community to solve humanity's most pressing challenges creatively." Wow! That sounds kind of intimidating, so it's worth pausing at least a few minutes to think about what this means for our local section.

What are humanity's most pressing challenges anyway? I won't even try to list them all here, but would like to consider a couple of them. On April 21, the ACS and the Alden B. Dow Museum of Science and Art sponsored an Earth Day event in which we had a well-known University of Michigan geology professor speak on climate change. The impression he left me with is that the warming of our planet is one of our most pressing challenges.

How are we going to solve it? Well, no one knows "how" for sure, but I think we can all be confident that the "who" is going to involve scientists. I'll even go one step further and suggest that the "how" might not be determined during my scientific career—it's going to be up to young people such as those recognized at our awards banquet. It's also going to be up to educators like those we recognized to excite and train these young people for a rewarding career in science or engineering.

Whether the future work involves developing alternative energy sources to reduce carbon emissions or inventing new, lighter materials to improve automotive fuel economy or measuring ocean chemistries to determine effects on sea-life, we will need creative, well-trained, and dedicated scientists. Look at the challenges in the life sciences field. There is a continuous need for newer and more effective drugs to fight cancer or for new methods to screen for early diabetes or heart disease. Researchers from all fields of science are necessary to determine solutions for a variety of these health issues. Now that's a pressing challenge for humanity!

The ACS Strategic Direction includes a number of specific actions which are vital to success in solving these challenges. In my opinion, the primary one is that ACS inspires and educates a future generation of innovative and creative chemical professionals who imagine the future and pursue discovery at the frontiers of knowledge. The awards the Midland Section gave out this spring are one important mechanism by which the ACS influences that future generation. However, we have many other mechanisms, including Sci-Fest, activities at West Branch for National Chemistry Week, the Saginaw Bay Watershed Project, our Fall Scientific Meeting, and many other activities within local schools.

Every spring, the Midland Section takes time to recognize educators and students. Many of our Section activities play an important role in creating our next generation of scientists and engineers.

All of these local efforts enable the ACS to meet its obligation to inspire the future generation of chemical professionals who will be challenged with solving some of those big problems for humanity. It is quite a privilege to be part of this awesome effort!

Councilor's Report Available on Web Site

Bob Howell's report on the 233rd National Meeting of the American Chemical Society, March 23–29, 2007, is available on the leaders page of the Midland Section web site: http://membership.acs.org/m/midl/.



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Midland Section Presents 2007 Spring Awards

By Scott Gaynor Photos by Angelo Cassar

On April 25, 2007, the annual Spring Education Awards Dinner was held at the Dow Corning Corporate Headquarters. The following were recognized for their outstanding contributions to teaching chemistry and science in the schools and colleges in the five county region of the Midland Section of the American Chemical Society. Also recognized were science education volunteers and outstanding chemistry students as selected by their high school or college.





2007 Science Education Volunteer Awards were accepted by Teri Bickmore (left) of Midland Cook Elementary School and Cal Goeders (right) of Midland Longview Elementary School. The presenter was Scott Gaynor.



Outstanding Achievement in Elementary Level Science Education awarded to Diane Huckins (right) of Bay City Public Schools by John Blizzard.



Outstanding Achievement in Middle School Science Education awarded to John Hoving (right) of Midland Northeast Middle School by Mike Ferritto.

Awards Committee members include Scott Gaynor (chair), Minghui Chai, Petar Dvornic, Mike Ferritto, Steve Kaganove, Steve Keinath, Debra Mendrick, Pamela Slavings, Mary Tecklenburg.



Outstanding High School Chemistry Students (not all pictured or in order): Marche Smith (Saginaw: Arthur Hill High School), Brandon Slavik (Ashley High School), Michael Chamberlain (Midland: Bullock Creek High School), Nicholas Krepostman (Mt. Pleasant: Sacred Heart Academy), Nathan Nartker (Shepherd High School), Anna Pickens (Chesaning High School), Apurba Chakrabarti (Midland: H.H. Dow High School), David Bernthal (Frankenmuth High School), Stephanie Lucas (Midland High School), Daniel McGee (Bay City: John Glenn High School)



Outstanding Achievement in College Chemistry Education awarded to Cynthia N. Peck (right) of Delta College by Dee Strand.



Outstanding College Chemistry Students (not all pictured or in order): Brian M Lixey (Delta College), Andrew Kosal (Alma College), Michael L. Bradford (Saginaw Valley State University), Brian Hales (Central Michigan University – Biochemistry), Nichole K. Nevorski (Central Michigan University – Chemistry).

Laura Jaksa Receives MMTG Award

Every year the MidMichigan Technician Group (MMTG) selects one Delta College student for the Outstanding Technology Student Award. This award recognizes an outstanding student completing an associate degree in chemical, chemical process, or environmental technology. This year the award was presented to Laura Jaksa at the Midland Section ACS Spring Science Education Recognition Dinner. Laura will graduate in May with an associate degree in chemical technology. She has been employed at Dow By Deb Mendrick Photo by Angelo Cassar



Deb Mendrick presents the award to Laura (right).

Chemical for approximately 3½ years and currently works in the Saran Products and Specialty Films R&D group, where she has demonstrated her dedication to safety, teamwork and initiative. Congratulations, Laura!

Excited About Chemistry?

By Jennifer Dingman

A re you excited about chemistry? That's what local chemists asked students during career-day presentations at Valley Lutheran High School in Saginaw. The day was set up in symposium format where the students had a choice on multiple careers to choose from during each time slot. There was a wide range of careers to learn about such as chemist, farmer, accountant, and architect. The goal was to have two different people within each discipline to give a broad perspective on that career path. Presenters this year were Jennifer Dingman, Application Engineering/Technical Service from Dow Corning Corporation, and Paul Popa, New Products Research and Development from The Dow Chemical Company.

The sessions were well attended with approximately 15 students at each. The students were very interested in the job of a chemist and asked lots of questions about becoming a chemist and the types of things that chemists do. This was a great opportunity to engage the next generation of scientists and plant the seed about careers in chemistry.

Chemistry Olympiad Students Announced

By Sharyl Majorski Photo by Angelo Cassar

The Midland Section of the American Chemical Society announced the names of eight high school chemistry students who took part in the Chemistry Olympiad this year. The students had the opportunity to take a national exam that may qualify them to become members of the U.S. National Chemistry Olympiad team that will compete in the 39th International Chemistry Olympiad (IChO) in Moscow, Russia, July 15-24, 2007.

The IChO involves a series of theoretical exams, laboratory exercises, and other activities aimed at identifying the best chemistry students from participating nations from around the world. The U.S. has participated in this event since 1984. In 2006, the U.S. team won three silver medals and one bronze. A total of 254 students represented 66 countries at the 38th IChO in Gyeongsan, Republic of Korea.

The eight local nominees were among nearly 1,000 nationwide that took the national qualifying exam April 26-30 to select finalists. Twenty students will be identified and will undergo intensive training June 3-17 at the U.S. Air Force Academy in Colorado. The top four will be chosen to represent the U.S. in the $39^{\rm th}$ IChO competition.



Chemistry Olympiad students included (not all pictured or in order): Apurba Chakrabarti (Dow HS), Matthew McCullough (Dow HS), Stephanie Lucas (Midland HS), Kori Reiter (Midland HS), Peijie Ong (Mt. Pleasant HS), Zhiyuan Wang (Mt. Pleasant HS), Alex Ritter (Laker HS), and Beth Ritter (Laker HS).

Pollack Speaks on Climate Change

By Dee Strand

Dr. Henry Pollack gave a presentation on climate change on Saturday, April 21, at the Midland Center for the Arts, as part of our Earth Day activities. Dr. Pollack is professor emeritus of geophysics in the Department of Geological Sciences at the University of Michigan. The event was co-sponsored by the Alden B. Dow Museum of Art and Science and the Chippewa Nature Center. About 40 people attended, and the audience consisted of ACS members, Chippewa Nature Center board members, and interested members of the community.

Dr. Pollack reviewed the conclusions of the Intergovernmental Panel on Climate Change (IPCC), which in 2007 concluded that the earth is warming and that it is very likely (90% confidence) that the climate change is due to the activity of humans. In his presentation, Dr. Pollack addressed three questions. First, is the climate changing? Dr. Pollack showed several data sets that suggest that the earth is warming. These included:

- Temperatures measured deep in the earth (500 m), which can be correlated to surface temperatures up to about 10,000 years ago.
- Measurements of the deep ocean temperatures, which have warmed.
- Maps of the distribution of ice coverage on the earth which showed that ice coverage has decreased significantly.
- Lengths of growing seasons around the world, which have increased. The second question addressed was the source of the warming. Dr.

Pollock reviewed data obtained from ice core samples that date back over 400,000 years. The natural cyclicality in the temperature data covered a range of 10°C. Temperature changes can be due to natural variations in solar intensity and to the effect of volcanic activity, which tends to cool the earth due to large amounts of particulate matter spewed into the atmosphere. Climate models that take into account all of the natural effects (that we know of) suggest that the earth should be in a period of cooling. CO_2 levels measured on the ice core samples show the interrelationship of CO_2 and temperature on earth. The two are closely correlated, and the current level of CO_2 in the atmosphere is unlike anything that has occurred before.

Finally, Dr. Pollack reviewed the effect of earth's warming. Sea levels will increase and have already increased 20 cm in the last century. Predictions over the next century, assuming the rate of temperature change remains constant, range from 1 to 6 m. Sea level changes of this magnitude will result in the displacement of between 100 and 400 million people. We will see more extreme storms and weather events. The eco-zones will

shift northward, with migration of species. Those species with nowhere to go will become extinct (e.g., arctic and high-altitude species). Ocean acidification will continue, which could have large effects on the food chain in the sea as the creatures at the base of the chain depend upon production of calcium chloride in basic seas. Dr. Pollack showed predictions that Michigan climate would be similar to southern Ohio in the winter and northern Arkansas in the summer by the end of this century—with resultant changes in plant species.

The recommendations on what we should be doing about climate change at large scale will require input from scientists, but will also require input from the areas of politics, economics, and demographics. Dr. Pollack concluded by saying that addressing the consequences of global warming will not be easy or cheap. Postponing doing something to reduce the effects will only make it more difficult. There are no silver bullets or single technology that will fix this. Some of the things we can do include conservation, increasing automobile fuel economy, use of biofuels (renewable fuels), and greater use of solar/wind power. We will "need every horse we have to hitch to the wagon."

Call for 2008 Officer Candidates

By Brent Zimmerman

Here is your chance to become more involved in your local ACS section. We need candidates to run for the following positions for 2008:

One-Year Terms

Chair-elect Secretary Treasurer Chair, Nominations & Elections

Three-Year Terms

Directors (3 slots open) Councilor Alternate Councilor

If you are interested in running for any of these positions or know someone who might be interested, please contact Brent Zimmerman at 989-496-6526 or b.zimmerman@dowcorning.com. If you have any questions regarding what the positions entail, contact your current officers on the Leaders page of the Midland Section web site http://membership.acs.org/ M/Midl/.

Committee members include Brett Zimmerman (chair), Jennifer Dingman, Bob Howell, Dee Strand, and Dorie Yontz.

2007 Turner Alfrey Visiting Professor Course

By Steve Keinath

Course 1034:	The Role of Metastable States and Metastability in Phase		
	Transitions		
Lecturer:	Professor Stephen Z.D. Cheng, Robert C. Musson Trustees		
	Professor of Polymer Science, Maurice Morton Institute of		
	Polymer Science, The University of Akron		
Place:	Lecture Hall (Room 101), Michigan Molecular Institute,		
	1910 West St. Andrews Road, Midland, MI 48640		
Time:	Formal lectures: Monday–Friday, June 18–22, 2007, 3:00–		
	6:00 p.m.		
Fee:	There is no fee for auditors if they belong to organizations		
	that are financial sponsors of the Turner Alfrey Visiting		
	Professor Program. For all others, a course fee of \$300 will		
	be required at registration. All participants must register.		
Registration:	Pre-registration is required no less than one week in ad-		
	vance with the registrar by visiting www.mmi.org, emailing		
	<i>registrar@mmi.org</i> , or by calling (989) 832-5555, ext. 571.		

Abstract: Classical metastable states possess a local free energy minimum at infinite sizes, but not a global free energy minimum. This concept is phase size independent. We have studied a number of experimental results and propose a new concept – that there exists a wide range of metastable states in polymers where their metastability is critically determined by the phase size and dimensionality. We call this multi-length scale type of phase behavior morphological metastability. This concept successfully explains the experimental observation of phase stability inversion that is solely determined by phase sizes.

Metastable states are also observed in phase transformations that are kinetically impeded on the pathway to thermodynamic equilibrium. This has been illustrated in structural and morphological investigations of crystallization and mesophase transitions, liquid-liquid phase separation, vitrification and gel formation, as well as combinations of these transformation processes. In these cases, the metastable state often becomes the dominant state for the entire system, and is observed over a range of size and time scales.

Biographical Sketch: Professor Stephen Z.D. Cheng is the Robert C. Musson Trustees Professor of Polymer Science in the Maurice Morton Institute of Polymer Science at The University of Akron. He received his B.S. degree in mathematics from East China Normal University in 1977, an M.S. degree in polymer engineering from Donghua University in 1981, and a Ph.D. in polymer chemistry from Rensselaer Polytechnic Institute in 1985, studying under Professor Bernhard Wunderlich. Professor Cheng continued at Rensselaer for another two years as a postdoctoral fellow, and then left to join the Department of Polymer Science faculty at The University of Akron as an assistant professor in 1987. He rose rapidly through the ranks at The University of Akron and became professor of polymer science in 1995, a trustee professor of polymer science in 1998, and finally was named the Robert C. Musson Trustees Professor of Polymer Science in 2001. He also served as chair of the Department of Polymer Science from 2001 through 2005.

His list of awards and recognition is significant, both within the scientific community at large and at The University of Akron. His awards include the NSF Presidential Young Investigator Award (1991), being named a fellow of the North American Thermal Analysis Society (1993). of the American Physical Society (1994), and of the American Association for the Advancement of Science (2006), receiving the John Dillon Medal from the Division of Polymer Physics of the American Physical Society (1995), being the recipient of the Distinguished Corporate Inventors Award of the American Society of Patent Holders (1995 and 1998) and the Goodvear Corporate Inventor Award (1998), the recipient of the Mettler-Toledo Award of the North American Thermal Analysis Society (1999), the TA Instruments Award of the International Confederation for Thermal Analysis and Calorimetry (2004), and the Cooperative Research Award of the Division of Polymer Materials Science and Engineering of the American Chemical Society (2005). Awards stemming from his association with The University of Akron include Outstanding Researcher Award (1997), GenCorp Signature University Award (1999), Omnova Signature University Award (2001 and 2004), and The University of Akron and Research Foundation Inventor Hall of Fame (2006), among others.

Professor Cheng has held over 20 honorary, advisory, adjunct, guest, or visiting professorships since 1994 around the globe, and the majority of these professorships have involved ongoing, annual repeat appointments. He has maintained a heavy commitment to teaching at The University of Akron, and has also delivered over 15 short courses on polymer physics and materials science topics in seven countries and at several industrial sites. He is currently serving or has served as senior editor, executive editor, or associate editor of *Polymer, Journal of Macromolecular Science (Physics)*, and the *Chinese Journal of Polymer Science*. He has also been a member of the editorial boards of over 10 additional journals and has served as guest editor of eight special issue topical volumes that have appeared in journal and book form.

The roles that Professor Cheng has taken on as a member of professional society committees, organizing committees, advisory boards, program committees, and as a symposium chairman or co-chairman are too numerous to recite. Suffice it to say that Professor Cheng has been very involved over his entire career with professional society activities. He has served or continues to serve as a consultant to seven companies, and has also had shorter-term consulting interactions with over 40 other companies.

Prof. Cheng's research interests are centered on the condensed states of polymers, liquid crystals, surfactants and micelles, and are focused on the interactions, responses, dynamics, and structures of materials on varying length and time scales. His research activities include investigations of transition thermodynamics and kinetics in metastable states, ordered structures and morphologies, and surface and interface structures in electronic and optical materials and other functional materials. The outcome of his work has resulted in over 350 publications, 10 patents, about 300 presentations, and over 500 invited lectures to date. In addition, he has mentored 17 M.S. and 60 Ph.D. student thesis projects, and has collaborated with 41 postdoctoral fellows and visiting scientists at The University of Akron since 1987.

2007 Sci-Fest Scheduled

Sci-Fest 2007 will be held at Delta College on October 27, from 10:00 a.m to 2:00 p.m. More information in future issues.



SPE/ACS/ASM/AIChE Joint Technical Society Dinner Meeting Polymers for Photonics and Optical Technologies

Prof. Stephen Z.D. Cheng

Robert C. Musson Trustees Professor of Polymer Science, Maurice Morton Institute of Polymer Science, The University of Akron

Soft materials have been widely used in photonic and renewable energy applications. In this talk, three examples will be given: compensation layers in flat-panel displays, optical rotators in communications, and photonic crystals. Although it is known that uniaxial negative birefringent (UNB) compensators can improve viewing angles in twisted and super-twisted nematic liquid crystal displays (LCDs), the practical production of the UNB compensators has been difficult and expensive. We have developed a new tech-



nology to produce the compensators that utilizes the intrinsic characteristics of the in-plane molecular orientation of aromatic polyimide films, which have been molecularly engineered to maintain specific properties. Controlling the structural anisotropy generates reproducible and tunable property anisotropy that differs when measured parallel and perpendicular to the film surface. The optical rotators are required in wavelength division multiplexing of optical communications. In order to overcome the difficulty of optical anisotropic behavior in optical waveguides, the rotators are utilized within the optical waveguides. Detailed molecular design and precise control of processing conditions can lead to a new generation of polymer optical rotators that possess better functional properties in comparison with inorganic materials. The field of photonics hopes to harness light and ultimately to control light by means of a photonic band gap (PBG) through the coherent backscattering of radiation, and thus create frequency ranges in which light propagation is forbidden. A PBG is created when a wave propagates through a periodic array of materials with sufficient refractive index contrast (n_1/n_2) where the dimensionality of the periodicity defines the dimensionality of the PBG. We have fabricated the first organic and polymeric photonic crystal with a 3-D PBG using poly(thiophene) with the highest polymeric refractive indices, i.e., with n=3.36 at a wavelength of 587 nm and n>2.5 at wavelengths above 650 nm.

Date:	Thursday, June 21, 2007		
Time:	Social	6:30 p.m.	
	Dinner	7:00 p.m.	
	Program	8:00 p.m.	
Location:	NADA Center	, Northwood University, 4000 Whiting	
	Drive, Midlan	d, MI 48640, 989-837-4277	
Cost:	\$25.00 for SPI	E/ACS/ASM/AIChE members or guests,	
	\$15.00 for stu	dents	
Reservations:	Reservations of	can be made via phone, fax, or e-mail to	
Dawn Wright at MMI. They must be received no la			
	than Thursday	y, June 14, 2007. Phone: 989-832-5555, ext.	
	571, Fax: 989-	832-5560, E-mail: wright@mmi.org	

Call for Posters

2007 Fall Scientific Meeting

By Dale Meier

Please consider presenting a poster at the Fall Scientific Meeting, which will be held on Friday afternoon, October 19, 2007, at the Midland Center for the Arts. Abstracts are being accepted now through September 14, 2007. The theme for the meeting will be "Chemistry and the Greatest Challenges of the 21st Century: Energy, Food, and Water." However, posters covering all areas of chemistry and chemistry-related topics are invited.

Each abstract should contain title, author(s) and author(s) affiliations, and abstract body text. The format specifics include:

- Single spacing with blank line between title and author and between author and abstract body text.
- Times New Roman typeface in 12-point size (or comparable).
- Submitted as an e-mail attachment in Microsoft Word (preferred) or other conventional word processor format.
- 225 words or fewer.
- Presenting author's name underlined. (Note: The e-mail address of the submitter will be the default contact person for all additional information.)

E-mail all abstracts to Joel Kern (jmkern@dow.com). Address questions to chair Dale Meier (meier@mmi.org), 989 832-5555 x577. The FSM web pages will be available from the Midland Section web site by July at http://membership.acs.org/m/midl/.

Chemists Celebrate Earth Day 2007

By Buford Lemon and Debbie Anderson Photos by Angelo Cassar

Reprising our stellar event of 2006, the Midland Section once again celbrated Earth Day at the Midland Center for the Arts in conjunction

with the Alden B. Dow Museum of Science and Art on Saturday, April 21. Over 200 attendees and 15 participating organizations helped continue our tradition of science, art, fun, and the celebration of Mother Earth. Booths from Dow Chemical (Dow Water Solutions and Global Climate Change), Delta College,



the Midland Conservation District, and Michigan corn growers (see list below for complete list of attendees), shared many different aspects of discovery and celebration. Our current chair, Dee Strand, hosted the first ACS Science Café during the Earth Day event, showing NOVA videos and providing colored starch "stickies," donut holes, and juice for attendees (see separate article). The CMU ACS student affiliates presented their re-

newable biodiesel poster and turned their "bio" knowledge into delicious French fries. Once again the Midland Section handed out white pine saplings to attendees, while the Midland Volunteers for Recycling provided the opportunity to turn trash into a work of art. Dow TV was also on hand to interview people about the ACS and Earth Day (the



broadcast has been well-received, we've been told), and we've already secured April 19, 2008, for next year's event!

Hats off to the many fine people who helped make this year's event such a success: The staffs at MCFTA and ABDM, Gretchen Kohl and Angelo Cassar, John Blizzard, the two Joel



K's and the Midland ACS Younger Chemists Committee, the CMU ACS student affiliates, Nick Beck and Dow's New Hire Social Group, Pat Smith, Dee Strand and her awesome daughters, and everyone else we may have missed – Thank You!!!

Participants:

Midland Conservation District Midland Volunteers for Recycling Dow Global Climate Change Midland Section of the ACS Joel Kern and the Midland ACS YCC Midland Area Homes All Seasons Heating and Cooling The Children's Zoo at Celebration Square ABDM booth Delta College CMU ACS Student Affiliates ACS Science Cafe Dow Water Solutions Corn Producers of Michigan Pat Smith – About Corn



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The Science Café—Everyone's Cup of Tea!

By Dee Strand Photo by Angelo Cassar

What do you get when you combine 5 gallons of lemonade, 150 doughnut holes, two videos on climate change, and about 2000 starch packing peanuts? The Midland Section's first ever Science Café! ACS launched the concept of the Science Café in conjunction with the NOVA scienceNOW producers. This is a mechanism to engage the nonscientific public in an informal, nontraditional setting.

To help address the gap in the public's understanding of science, the producers of NOVA created a new series, scienceNOW, with a goal to in-

crease public awareness, understanding, and engagement with cutting-edge science. NOVA scienceNOW is a magazine-format program with several short segments highlighting a wide variety of topics in current research.

Our first Science Café was held at our Earth Day celebration at Midland Center for the



Arts on Saturday, April 21. At the café, two videos were shown. The first dealt with the rapidly melting glaciers in Greenland and the effect of the melting. The relationship between stronger hurricanes and global warming was described in the second video. Viewers of the video had the opportunity to ask questions or share their impressions. The videos were combined with a craft activity involving environmentally friendly starch packing peanuts for younger children.

The activity, as well as the kid-friendly snacks, provided time for parents or adults to watch the video and learn about the effects of climate change. One parent watched the melting glacier video twice and said that "he couldn't believe these kinds of things were happening—why hadn't he seen this before?"

For information on hosting your own Science Café, contact Dee Strand (strandda@dow.com). The scienceNOW videos can be watched at http:// www.pbs.org/wgbh/nova/sciencenow/archive/ and are well worth the time!

CMU SAG Participates, Wins Award at National Meeting

By Kasandra Sheley

On Friday, March 23, the ACS student affiliate group (SAG) from Central Michigan University traveled to Chicago for the American Chemical Society National Meeting. There were fifteen students and two advisors who ventured on the trip. On Saturday the student affiliates volunteered to help run a Green Chemistry interactive demonstration workshop for underprivileged children at the Notebaert Nature Museum. This was a great opportunity for both the student affiliates and the children

who participated to experience Green Chemistry and see how it affects the world around us.

There were nine stations that the students were able to participate in. The student affiliates were at different stations along with other student affiliate groups from around the country. At this event we were also privileged to meet the President of ACS, Katie Hunt, and take a group photo with l



 $CMU\ student\ affliates\ volunteer\ at\ National\ meeting.$

take a group photo with her. Sunday was the first day of the undergraduate conference. The student affiliates went to many different events throughout the day. Some of the events attended were: Chem Demo Exchange Using Household Chemicals, Morning Tea with Graduate School Recruiters, ACS Community Outreach Programs-You Can Make a Difference, and Automotive Chemistry: More Than Just the Tailpipe. The most influential events for the group were the demo exchange and the community outreach. These are two aspects that our student affiliate group focuses on throughout the year. We learned many new demonstrations to do at the schools in our area and also other ways to get the community more involved with chemistry.

Another reason the group attended the conference was because three of our members were presenting their research projects. Stephen June presented his research on polymer science, Michael Todd presented his



poster at the undergraduate poster presentation, and Leo Nezeritis presented his poster at the Sunday night poster session.

As a student affiliate group we pride ourselves with sharing our knowledge of chemistry throughout our community. On Sunday evening we went to the SAACS Chapter Awards Ceremony to accept an award for Outstanding Chapter for 2005–06. Our members work very

Proud CMU student affiliates with National award.

hard each year and are honored to achieve such high standing and recognition for that hard work. After the award ceremony there was a social for all the student affiliate groups from around the country.

On our last day at the conference we went to a few more events. The first part of the day was spent going to the graduate school recruiting breakfast, the Expo, and the undergraduate research poster session. That evening a few of the affiliates went to the Sci-Mix to mingle with people from all over the country. Each event was a great experience for each member who attended. We are all looking forward to next year's meeting!



Call for Nominations 2007 Midland Section Awards

By Scott Gaynor

Outstanding Achievement and Promotion of the Chemical Sciences

Each year the Midland Section honors an individual residing within the Section's geographical area who has demonstrated outstanding achievement and promotion of the chemical sciences. This award recognizes dedication and service to the chemical profession. The recipient need not be an ACS member. Nominations should include a biographical sketch, list of pertinent publications, evidence of professional growth and involvement, and letters of support from colleagues. Previous recipients are:

1976	Turner Alfrey, Jr.	1992	Donald A. Tomalia
1977	Etcyl H. Blair	1993	Dale J. Meier
1978	David C. Young	1994	Philip T. Delassus
1979	Vernon A. Stenger	1995	Duane B. Priddy
1980	Daniel R. Stull	1996	Hans G. Elias
1981	Bob A. Howell	1997	Ludo K. Frevel
1982	Wendell L. Dilling	1998	Patrick B. Smith
1983	Donald R. Weyenberg	1999	David E. Henton
1984	Edwin P. Plueddemann	2000	Steven J. Martin
1985	Raymond P. Boyer	2001	Edwin C. Steiner
1986	Stanley P. Klesney	2002	Thomas J. Delia
1987	Warren B. Crummett	2003	Robert M. Nowak
1988	A. Lee Smith	2004	Herbert D. (Ted) Doan
1989	Do Ik Lee	2005	Mike Owen
1990	Joseph E. Dunbar	2006	Robert E. Kohrman
1991	Thomas H. Lane		

Outstanding Service to the American Chemical Society

The Section sponsors an annual award to recognize outstanding service to the Midland Section of the ACS. This award recognizes achievement in the promotion of the goals of ACS. Nominees shall be members of the Midland Section. Nominations should include a biographical sketch, a history of service to the Midland Section, and supporting letters from fellow ACS members. Previous recipients are:

1989	David C. Young	1998	Vicky S. Cobb
1990	Linneaus C. Dorman	1999	Theodore E. Tabor
1991	Donald R. Petersen	2000	Peter and Patricia Dreyfuss

1992	Wendell L. Dilling	2001	George W. Eastland, Jr.
1993	Bob A. Howell	2002	Joan Sabourin
1994	Eldon L. Graham	2003	John Blizzard
1995	Gretchen S. Kohl	2004	Steven Keinath
1996	Fran K. Voci	2005	Ann Birch
1997	Thomas H. Lane	2006	Philip Squattrito

Outstanding Chemical Technician

The Section presents an annual Outstanding Chemical Technician Award to an individual who has demonstrated an extremely high degree of professionalism as a chemical technician. The ACS defines a chemical technician as a person whose training includes successful completion of a two-year post-high school level chemistry curriculum leading to an associates degree, or the equivalent course work in a baccalaureate program, or the equivalent knowledge gained by experience. The primary work of a chemical technician is conducting experimentation and/or correlating information to help solve chemical problems and/or discover new chemical knowledge. Criteria used to judge the award include job skills, safety, teamwork, leadership, publications and presentations, reliability, communication skills, and additional professional and community activities. Nominees must have worked for five years as a chemical technician. Chemical technicians do not need to be a TECH Division Affiliate or ACS member to be eligible for this award. Nominations should include a biographical sketch and supporting letters that address each of the criteria above. Previous recipients are:

1997	Connie J. Murphy	2002	Cynthia J. Gould
1998	David Stickles	2003	Robert D. Krystosek
1999	Ronald L. Good	2004	Sharon Allen
2000	Kurt A. Bell	2005	Bill Rievert
2001	Gordon R. Roof	2006	Margo McIvor

Nominations for *all three* awards are invited. The deadline for receipt of nominations and all supporting materials is *September 15, 2007*. Nominations should be sent to:

Scott Gaynor, Awards Committee Chair The Dow Chemical Company 1603 Bldg. Midland, MI 48674 Phone: 989-638-1806; Fax: 989-636-6454 e-mail: sggaynor@dow.com If you have questions or need additional information, please contact Scott directly. Nominators should provide their address and phone number in case the committee needs to contact them. The Awards Committee encourages all section members to nominate deserving colleagues and appreciates your efforts in helping these individuals receive recognition for their efforts. We look forward to hearing from you!

In Past Issues of The Midland Chemist

By Wendell L. Dilling, Midland Section Historian

- **40 Years Ago This Month**—*In* Where Are the Literary Chemists? by J. E. Dunbar, editor: "The staff of the *Midland Chemist* is not small because it is exclusive. The staff members would warmly welcome newcomers to lighten the chore of getting out nine issues a year. And with a larger staff of competent journalistic chemists our publication could easily rate with those of the largest sections of the American Chemical Society."
- **30 Years Ago This Month**—*In* Fear of Reprisal by H.W. Henry, general manager, Michigan Division, The Dow Chemical Company: "In no way would I condone a supervisor or anyone else in the Division initiating any action or taking reprisals against an employee for expressing his or her viewpoint. I expect and encourage our employees to be open and to feel free to communicate their thoughts verbally and/or written. Yes, I'm talking about controversial topics too."
- 20 Years Ago This Month—In Chairman's Corner by George Eastland: "I was fortunate to attend the latest Britton Symposium. It was a very fine program. I hadn't attended one in a number of years, and I enjoyed it. This symposium was a job very well done by Stephanie Burns and her able group of co-workers."
- **10 Years Ago This Month**—*In* From the Chair... by Joan Sabourin: "The Science Education Recognition Dinner held on April 24, 1997, was a wonderful success. Congratulations to the ACS 50-year members and to all of the award winners. The evening was made more enjoyable watching the reactions of our young scientists to the prodding of Dr. Slime, alias Mike Garlick from Delta College."

Important Dates on the ACS Midland Section Calendar

- Midland Section board meeting, 7:00 p.m., CMU, Mt. Pleasant, Dow June 11 Science 264 (Dee Strand, strandda@dow.com) June 11 Deadline for registration for TAVP course (see below) Deadline for reservations for SPE/ACS/ASM/AIChE Dinner Meeting June 14 (see below) June 18-22 Prof. Stephen Cheng, Turner Alfrey Visiting Professor, 3:00–6:00 p.m. Michigan Molecular Institute (registrar@mmi.org, 989-832-5555, ext. 571) SPE/ACS/ASM/AIChE Joint Technical Society Dinner Meeting, Prof. June 21 Stephen Cheng, "Polymers for Photonics and Optical Technologies," NADA Center, Northwood University (Dawn Wright, wrigth@mmi.org, 989-832-5555, ext. 571)
- July 2 Deadline for August issue of The Midland Chemist

No Board of Directors meeting in July

AMERICAN CHEMICAL SOCIETY P.O. Box 2695 Midland, MI 48641-2695

