



Project SEED students Kyle Beasley (below) and Brettny Sample (left) getting good results from this summer educational program.



Celebrate Earth Day, pg. 3

Climate Change Speaker, pg. 4

THE MIDLAND CHEMIST

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Chair Column

Are You Too Busy?

Dual careers? Aging parents? Kids? Business travel? It can sometimes be overwhelming to think about volunteering to do just one more thing in our hectic schedules. When someone asks us if we can help out, who could fault us for saying that we are just too busy? In order to gain some perspective on just who those people are who find time to volunteer, it is worth taking a look at some statistics.

Who are all these volunteers? The U.S. Bureau of Labor Statistics studied the characteristics of volunteers during a one-year period in 2001. They found that 27.6% of people in the U.S. over the age of 16 did some kind of volunteer work during the year. That's roughly 59 million people! For that time period, volunteers averaged 52 hours of service, with 28.2% of the 59 million volunteering between 100 and 499 hours and 21.5% between 1 and 14 hours. Individuals between 35 and 44 years of age had the highest incidence of volunteerism at 34.4%. Here's a further breakdown:



Dee Strand, Chair
ACS Midland Section

Population Segment	Volunteer Rate in 2001
Women	31.1%
Men	23.8%
College graduates	43.5%
High school graduates	21.3%
Parents of children under 18 years	36.5%
Parents of children over 18 years	22.1%
Married	32.7%
Single	21.2%
Employed	30%
Unemployed	25.3%

If you summarize all those statistics, it would suggest that your typical volunteer might be a college-educated, currently employed, married, 40-something woman with children under the age of 18. Many people in that group are dealing with aging parents, and also are in dual career situations. Yet in spite of all those factors, that typical volunteer manages to find, on average, one hour per week to give to others.

Why do these busy people give away their precious free time? Many different reasons are given by volunteers, but a few of those reasons are common in most of the studies that have been done on this topic. First, volunteering gives a sense of accomplishment and achievement to the individual. Second, being a volunteer, particularly as part of an organization, gives the individual a feeling of belonging and friendship. Finally, the opportunities that arise when doing volunteer work can enhance skills important to a career such as leadership, teamwork, and public speaking. Since our typical volunteer described above appears to be a very busy individual, it would suggest that the rewards of volunteerism must be very great indeed.

What type of volunteer activity would be rewarding enough for you to give up some of your free time? Are scientific meetings interesting for you? ACS hosts an annual Fall Scientific Meeting with excellent speakers and an opportunity to view or even present a poster. Volunteer to help organize it. Are you concerned about the lack of young people in this country choosing science as a career? Volunteer to mentor a middle school student in science and math. Do you like working with children? Volunteer to help with SciFest or Earth Day events. Are you looking for leadership opportunities? Run for office in our local ACS section. Are you new in town or do you want to meet new friends? Become active in the section. The list of opportunities goes on and on. Don't see anything at all that interests you? Tell us what might! We are always looking for new programs and ideas to try.

So to all of you very busy ACS members, please give this some careful thought. We have over 700 members in our section. We would like to offer opportunities for all of you to get involved. If you are currently active in the section, thank you for all your efforts to bring about the high quality activities and programs that our section is known for. However, if you are currently not active in the section, consider what types of activities might make you want to give that hour of your time per week. Then volunteer to make it happen!

Dee Strand

Editor's Note: See pg. 15 for Charlene Hayden's thoughts on volunteering. Charlene is a councilor for the Detroit section.

Come Celebrate Earth Day!

By Joel Kern and Deb Anderson

Alden B. Dow Museum of Science and Art

Saturday, April 21, 2007

10:00 a.m. – 3:00 p.m.

Join us for our celebration of Earth Day 2007, hosted by the Alden B. Dow Museum of Science and Art (at the Midland Center for the Arts) and the Midland Section of the American Chemical Society. This year's topic is Recycling! Enjoy the hands-on activities at the Earth Day event in the Brick Lobby and support museum education programs by attending. This year we'll again be providing white pine saplings for anyone who wants to plant a tree, and you'll be entertained and educated by this year's participants: CMU Student Affiliates, Midland Recycling Center and Landfill, Midland Area Homes, Raven Analytical, Delta College, and more! The event is free to the public.



The Museum will be holding "Protect Our Planet" shows at 2:00 p.m. and 3:00 p.m., a magic-style show that helps to illustrate how we impact our environment, food, trees, and energy and how we deal with the waste we create. Yet another fantastic program by Dynamic West Assemblies—the folks who brought you last year's Dinosaurs to Reptiles.

Additionally, Professor Henry Pollack, a professor of geophysics at the University of Michigan, will be speaking on the topic of global climate change at 4:00 p.m. (see pg. 4).

Two sister events will be happening concurrently at Whiting Forest and the Chippewa Nature Center. During Earth Day Exploration from 9:00 a.m. to 4:00 p.m. Whiting Forest trails will be open free to the public courtesy of The Little Forks Conservancy. Be their guest and explore the fabulous trails through native Michigan habitats and learn more about conserving open space in your area. Green Gardening Day at Chippewa Nature Center will be held from 10:00 a.m. to 4:00 p.m. Be sure to come to CNC's Green Gardening Day before you *Venture Out!* into your own gardens. Master Gardeners, horticulturists, and naturalists (the experts) will be here to answer your questions and give you advice so you, too, can have a green thumb. There will be gardening fun for kids, too, including crafts and planting projects.

Attend all three events and be entered into a drawing for one of many prizes!

Prof. Pollack to Speak on Climate Change

By Dee Strand

Alden B. Dow Museum of Science and Art

Saturday, April 21, 2007

4:00 p.m.

Midland Section—ACS and the Chippewa Nature Center are co-sponsoring a presentation on climate change. Professor Henry Pollack has been a professor of geophysics at the University of Michigan for over forty years. He has earned a reputation as one of the world's leading experts on the temperature of the earth, both today and in the geological past. An award-winning teacher with a gift for explaining science to nonscientists, Professor Pollack has taken a special interest in helping leaders in government and business, as well as the general public, to better understand and evaluate the scientific developments associated with global climate change.



Professor Pollack's work has taken him to many different places, from the harsh scrubland of the Kalahari Desert to the volcanoes of Kamchatka to the icy landscape of Antarctica. His excellent field work, combined with a talent for careful quantitative data analysis in the laboratory, has produced results widely recognized among earth scientists as innovative and exciting. Over the course of his career, Professor Pollack has educated generations of students, published widely, chaired his department, served as an advisor to the US National Science Foundation, testified before Congress, and launched the first international efforts to coordinate research into geothermal evidence of global climate change.

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Announcing CERMACS 2007

Central Regional Meeting of the American Chemical Society
Hosted by the Cincinnati Section of the ACS
Northern Kentucky Convention Center, Covington, KY
May 20–23, 2007

“Learn Today...Influence Tomorrow”

Plan now to attend this action-packed meeting of science and fun! For more information, follow the links on our website www.cermacs2007.org

Symposia and General Sessions

- Investigative Forensic Science featuring William Dean, Chief of Forensic Sciences and his team at the Hamilton County Coroner’s Office
- Chemical Education featuring the “Fantastic Four” Science Guys—Bassam Shakhshiri, David Katz, Al Hazari, and John Fortman
- Special Presentation by Dr. William Jensen, 2005 International Edelstein Awardee “Illuminating Molecules” and “Chemical and Biological Sensors” will enlighten us with the newest in the art of “dazzling and sensing”—probing photochemistry, photophysics, and sensors around the region
- “Brewing Science & Art: Beer & Beyond” brought to you by the Master Brewers Association of the Americas (MBAA)
- 24 General sessions

Student Program

- Targeting the Job Market & Interviewing Skills Workshops
- Going Somewhere?-Career Paths in Chemistry
- Resume Preparation & Individual Resume Reviews

Poster Sessions and Vendor Exhibition

Other Activities

- Teachers Program on Sunday, May 20 (at Northern Kentucky University)
- Chemical Abstracts Service 100th Anniversary Celebration
- Cincinnati Section of the ACS “Party Night,” Wednesday May 23, ALL WELCOME

Program: Jeanette Krause, jeanette.krause@uc.edu

Vendor and exhibits: Robert Voorhees, robert.voorhees@uc.edu;

Michael Kurutz, kurutz@measurenet-tech.com

Student program: Keith Walters, 859-572-5315, walterske@nku.edu;

Heather Bullen, 859-572-5411, bullenh1@nku.edu

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 x 577. The FSM web pages will be available from the Midland Section web site by July at <http://membership.acs.org/m/midl/>.



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Tri-Sectional Professional Development Conference Offered

By Megan Klein, Detroit Section

University of Detroit Mercy
Chemistry Building – McNichols Campus
4001 W. McNichols Rd., Detroit, MI 48221
Saturday, April 14, 2007
8:30 – 9:00 a.m. (registration), 9:00 – ~3:00 p.m. (program)
Cost: **FREE!!**

The Detroit, Toledo, and Huron Valley Local Sections welcome ACS members and nonmembers to attend a Professional Development Conference. Are you looking to network with other professionals in your similar field? This conference is aimed at chemists at any stage of their career. As mentioned above, there is no fee for this conference. The deadline for registration is Thursday, April 5, 2007. (See below for details.)

Concurrent Morning Session I—9:00 a.m., Lecture Hall 114

We are pleased to have Dr. Lisa Balbes as the conference's key presenter. Dr. Balbes will conduct a workshop entitled "Managing an Effective Job Search." The workshop will focus on three aspects of the job search: Targeting the Job Market, Resume Preparation, and Interviewing Techniques. The duration of each session will be approximately one hour.

Concurrent Morning Session II—9:00 a.m., Classroom 118

Carole DePetro, Career Counselor and Life Coach, will host a workshop that focuses on how to overcome roadblocks in your career path. If you need help figuring out the best direction for you, whether you are just beginning your career, thinking about a job transition, or deciding what to do in your retirement, join this highly experimental, interactive presentation. This lecture will explore clues found in your personality, talents, and skills to help you develop a clearer sense of where to utilize your skill set. Ms. DePetro will lead the group through individual assessments and a brainstorming session. Fun, easy homework will be sent to you to bring to this session, so please remember to submit your e-mail address when you register, as materials will be sent to you.

Luncheon Program—Library

During lunch you may meet with other chemists who share similar interests with you. A pizza lunch including refreshments will be provided.

Afternoon Session—1:00 p.m., Lecture Hall 114

Dr. Lisa Balbes will present a *premiere* new workshop describing how to

make a successful career transition. Also presented during this workshop will be nontraditional careers that chemists have discovered.

Résumé Review—9:00 a.m.–3:00 p.m., Classrooms 209 and 213

Half-hour, one-on-one, résumé reviews will be provided throughout the day by ACS Career Coordinators Dr. Diana Phillips and Dr. Robin Hood. Space is limited, so send in your registration early! Available time slots will be posted at the registration booth. If your company would like to exhibit or donate door prizes, or if you would like to volunteer to help, please contact Megan Klein (e-mail below).

Presenter Bio: Lisa M. Balbes, Ph.D.

Lisa M. Balbes, Ph.D. founded Balbes Consultants (formerly Osiris Consultants) in 1992. Balbes Consultants provides scientific writing services, including documentation for scientific software and medical devices for over 50 client companies. She was chair of the St. Louis Section of the American Chemical Society in 2002, receiving an Outstanding Local Section Achievement Award and a Salute to Excellence Award for her work there. She is also very involved in career development for chemists, has been a volunteer career consultant for ACS for 14 years, and is the author of “Nontraditional Careers for Chemists: New Formulas in Chemistry,” published by Oxford University Press in 2006. Dr. Balbes obtained her Ph.D. in chemistry from the University of North Carolina at Chapel Hill, and her undergraduate degrees in chemistry and psychology from Washington University in St. Louis. Her company’s web site is <http://www.balbes.com>, and includes links to information about the book, as well as her blog on career development for chemists.

Presenter Bio: Carole DePetro

Carole DePetro has utilized her background in teaching to build on her business and psychology degrees. She often lectures on finding your mission in life, changing careers, identifying personality and temperament types, and creating the life you want.

Registration Information

While there is no monetary charge for this event, we need your cooperation in registering in advance so that we can plan our food and room needs for the day. Accordingly, please download and complete the registration form found from the link on our Detroit-Section ACS website: www.detroitsection-acs.org/dsacs37.htm

Submit your completed registration (preferably via E-mail, but fax or mail is OK) to Mary Kay Heidtke by Thursday, April 5:

E-mail: mkheidtke@aol.com

Phone: (313) 843-7969 Ext. 25

Fax: (313) 842-6730
 Address: Magni Industries, Inc.
 Attn: Mary Kay Heidtke
 2771 Hammond Street
 Detroit, MI 48209

Directions

The University of Detroit-Mercy's McNichols Campus is located in north-west Detroit, on the southeast corner of McNichols and Livernois, at 4001 West McNichols. The campus is accessible from the Chrysler (I-75) and Jeffries (I-96) freeways. *Please note:* The Lodge Freeway (M-10) will be closed for construction! A campus map may be found at: <http://www.udmercy.edu/about/mcnmap.htm>. For more information, please contact Megan Klein at: klein_megan@hotmail.com

A Periodic (Table) Poem

By Stacy Daniels

Editor's Note: Stacy composed the poem below (with, as he says, considerable poetic and chemical license) to include the symbols of all 111 named chemical elements (plus Humanium, Hu). Can you read it? See pg. 16 for a translation.

"Hu Mn" F Ac Es I N Th P Er I O Dy K Tb La S

Th Er O N Ce W As Ag Re At C He Mo C Al Co.,

Th At Pt Gd Cd Au As Zr Ta N Pd Fe Es,

V I Si O N In Ga Sc In Ce, Am Ta Pm, Li Mn Ti Y.

Md Th Es : Ho W Sg Na Zr Dy Mo N Ds, Hf P Er I O Dy Ca Al Li,

Cm In Si Sn S H Pb Rn Fr Ta Bk, Np Ra Sb,

Bh Th La Rg N Sm, Mt Sr Ta Mo Al S, As Eu Ca N Xe.

Fm U N Am Bi Hg U Os C H N Ge, Po Se Cu I Te Ra Dy K Al Li,

Th At Th Ar Nd Be No Cr As Xe Lu Ni Ti Hs, N O Rb In Se N Si B Li Te,

Lr Rh O F Ba S I Cs; Cf Kr Yb Tc Pr As; Rf Pu Re Ru Br I C. Cl Er Li,

Pa S Ta Tm Ta Db U In Tb La S Nb In Mg Zn S, Ne W Hu Mn F Ac Es, H Er Ir He.

-- S Ta Ce Y Ds / 022807

Spring Science Education Recognition Dinner

By Scott Gaynor

Dow Corning Cafeteria, Midland, Michigan

Wednesday, April 25, 2007

6:00 p.m. – 9:00 p.m.

Program

6:00 p.m. Reception

6:30 p.m. Buffet Dinner

7:30 p.m. Awards Presentations

Teachers and students will be recognized for their outstanding achievements in science education at this twelfth annual event. The cost of the dinner is \$18.00 per person and includes appetizers, dinner, dessert, and beverage. Please respond by mail using the form below. Your dinner reservation request must be received by April 13, 2007. You may also register by e-mail to Scott Gaynor (sggaynor@dow.com) and pay at the door. This event is sponsored by the Midland Section of the American Chemical Society and underwritten by grants from The Dow Chemical Company and Dow Corning Corporation. For further information, contact Scott Gaynor at (989) 638-1806.

To reserve a place at the 2007 Spring Science Education Recognition Dinner, return this form with payment (\$18.00/person) by April 13, 2007, to Scott Gaynor, The Dow Chemical Co., 1603 Building, Midland, MI 48674.

Name(s): _____

Affiliation: _____

Address: _____

Phone/Email: _____ ACS member? Y N

Enclose payment of \$18.00 per person. Checks should be payable to "Midland Section ACS."

Report from the 2007 ACS Leaders Conference

By Dorie Yontz

In late January, I had the opportunity to join other Local Section chair-elects at the 2007 ACS Leaders Conference in Baltimore. It was a busy three days of topics related to ACS administration, leadership training, and ACS services. That was great, but by far the biggest benefit to attending the conference was networking with other Local Section leaders and learning how they address their challenges. Not surprisingly, a large portion of the weekend was spent discussing the issue of volunteer involvement, a challenge faced by most of the local sections across the country. Katie Hunt, ACS president, gave a talk (http://acswebcontent.acs.org/localsections/pdfs/Katie_Hunt.pdf) summarizing the three components necessary for outstanding leadership: passion, alignment, and competency. However, I think these same components are needed for outstanding performance regardless of what we are doing. Without passion, an activity is a chore; without alignment, it's a hobby. And without competency? Well, that's a rookie.



ACS has room for volunteers of all calibers. If it seems that ACS is a chore—all competency and alignment but no fun—then let us know. We recognize that your time is precious and we're looking for ways to make it easier to volunteer. If you have passion and skill but it seems that your ideas don't quite fit with what ACS is doing, then come talk to us. Perhaps we can work together to provide an outlet for your ideas. Twice each year (March and August), the National ACS organization accepts applications for Innovation Grants (up to \$3000) to fund unique events in order to strengthen the function of the local section. Other sections have held events like "Science in Cinema," which featured a film followed by a discussion of the science in the film, or an art exhibit that displayed photographs of small objects. If you have the passion and the alignment with ACS activities but think you lack the skills, don't worry! The great thing about volunteering is that it is a safe way to build competencies. All we need is a person with passion and interest in doing something and we can help with the rest. Check out Charlene Hayden's article on volunteerism (pg. 15) to see the kinds of competencies she has developed through her involvement with her local Detroit ACS section. If you're interested in learning about how you can participate, even if it's in a small way, contact any of our Midland Section officers (<http://membership.acs.org/m/midl/Leaders.htm>).

ACS Tour Speaker

Spices & Herbs: Chemistry & Health

Dr. Carolyn Fisher
McCormick & Co., Inc.

Central Michigan Univ., Dow Science, Room 175, Mt. Pleasant
Monday, April 16, 2007, 4:00 p.m.

A general overview of the components of spices and herbs is presented, along with their attributes for the food industry. Cloves, rosemary, ginger, capsicum, and cinnamon, as well as others, will be surveyed. Bioactivities of these components will be discussed, with emphasis on antimicrobial, antioxidant, anticarcinogenic, and antidiabetic activities.

Fisher received her B.S. degree in 1972 from Wayne State University and Ph.D. in 1978 from Stanford University. She was engaged in the research of separations at Kalsec from 1978 to 1991. She began with the purification and analysis of hop compounds and established HPLC separation procedures for many spice extracts. She has developed an economic process for the production of purified capsicum extracts. She collaborated with researchers at Rutgers and the University of Illinois, Urbana-Champaign, to test isolated spice compounds for anti-carcinogenic activity. At the University of Delaware from 1992 to 1996, she continued her work on the phenolic compounds isolated from plants and how they affect our food and health, as well as writing the book *Food Flavours: Biology & Chemistry*. She started at McCormick & Company as quality assurance manager for industrial flavor products in 1996 and became the flavor regulatory manager in 2005.



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Dow Corning Technologist Earns ACS Distinction

By Tina Leaym

Margo McIvor, senior science and technology technician at Dow Corning Corporation, earned the profession's highest honor from the American Chemical Society (ACS)—the 2007 National Chemical Technician Award. The ACS Division of Chemical Technicians (TECH) is honoring Margo for her contributions to the field and to Dow Corning, her innovative approach to finding solutions, and her strong work ethic. She was named Outstanding Chemical Technician by the Midland Section of the ACS last year.



Most recently, Margo led the commercialization and technical development for a new specialty material at Dow Corning. She's led the design effort for new laboratory facilities to explore new technology areas and has developed analytical test methods for more than a dozen analytical instruments. This method development work enables evaluations for diverse material samples as a key contributor to the company's Personal Care Technology Assessment Team. Her environmental research includes a project to improve quantitative measurement of DDT and its derivatives in water and soil samples.

While working full time, Margo earned a bachelor of science degree in chemistry from Saginaw Valley State University. She has contributed to more than 30 patents and publications over her 10-year career at Dow Corning.

"Her breadth of skills and passion for science and the people who practice it are remarkable," according to Tom Lane, senior research scientist and director of Global Science and Technology Outreach. "Margo is a role model, not only because of her high level of skills, but because she is also a facilitator, a great communicator, and a humble leader. Her Dow Corning colleagues are extremely proud of this ACS recognition for one of our best."

Margo will receive an honorarium and an expense-paid trip to the Spring National ACS Meeting in Chicago. A dinner will be held for the award presentation on March 25, 2007. Bill Carroll, ACS immediate past president 2006, will give the keynote address titled, "Thoughts on Career Management and Leadership for the Next Ten Years." Tickets are on sale through meeting registration, event SE03, www.chemistry.org. The award is sponsored by S.C. Johnson & Son, Inc.

MMTG Geared Up for 2007 Activities

By Deb Mendrick

In case you are not familiar with Mid-Michigan Technician Group (MMTG), let me start by saying that MMTG is the ACS Midland Local Section Technician Affiliate Group (TAG). Board members for 2007 include:

Chair:	Deb Mendrick	dmendrick@dow.com
Chair-elect:	Dana Fuerst	dfuerst@dow.com
Secretary:	Jessica Bell	jbell2@dow.com
Treasurer:	Gerard Nowaczyk	gerard.s.nowaczyk@dowcorning.com
Delegates:	Dave Stickles	dstick44@chartermi.net
	Grant Thomas	thomagn@kellyservices.com
Directors:	Debbie Bailey	d.k.bailey@dowcorning.com
	Sue Perz	sue.perz@dowcorning.com
	Wendy Klein	wendyjoklein@aol.com
	Pam Slavings	pjslavings@dow.com

If you are interested in joining MMTG or have questions, comments, or suggestions, please contact me or any member of the Board.

I am in the process of scheduling several events/seminars for our members. It can be challenging to come up with fun, interesting topics and speakers, so let me know if there is a specific speaker or topic you'd like to learn more about this year. I have spoken with Diane Barker from Kelly Scientific Resources (KSR). Diane is one of the regional directors of recruiting for KSR. I have asked Diane to speak to interested MMTG members about future employment trends for chemical technicians. Diane's talk will most likely be presented as a lunchtime seminar. Look for announcements about this event in the second half of the year. I expect Diane's presentation to mirror Jim Birney's talk given at CRM 2006: *Employment Trends, The Technician of the Future*.



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The Value of Volunteering

By Charlene Hayden, Councilor, Detroit Local Section

Thinking about volunteering? Want to network with other chemists, give back to your community, become a role model, be a more valuable employee, and make new friends? Getting involved in your local section offers many more benefits than you might expect!

One crisp, fall day in 1984, I decided to attend a local section meeting—a “family night” at the local science museum. My sole purpose in going was to meet the chair of the section and introduce myself so that I could get more involved. My reasoning was something like this: “I’m paying money out every year to ACS, and what do I have to show for it other than a subscription to *Chemical & Engineering News*?” I thought maybe if I got more involved, I would get a better return on my investment! I expressed my interest to the chair, who was very friendly and easy to talk to, and we exchanged phone numbers. The very next day, he called me and offered me three different options for what I could do to help the section. One of these was to help start up a younger chemists committee, which appealed to me the most because I was in my early twenties.

That was 22 years ago. I not only helped start up a younger chemists committee, I’ve stayed actively involved with the section ever since. I’ve now served as secretary, treasurer, and twice as chair. I currently am a councilor and serve as chair of the long-range planning committee.

Why would anyone do all of this, you might ask? Sure, it has taken many hours of *sometimes* tedious work; dragged me out to long, boring committee meetings on winter evenings when I’d rather be home by the fireplace; and added to my stress level as a full-time working mom. But I have received numerous benefits that I never anticipated back in 1984. First of all, the experience I have gained has helped me grow professionally and gotten me kudos at work (phrases like “demonstrates leadership potential” in my evaluations). Second, I have had the pleasure of meeting and working with other chemists from all over our section. Most of the major chemist-employing companies and universities are represented on our executive committee, so you can’t help but develop a good network of colleagues. Finally, the satisfaction of helping other area chemists and future chemists (i.e., today’s students) is its own reward.

On a more personal note, the people I have met through my ACS local section are not merely colleagues, they have become my friends. We have a truly remarkable group of dedicated volunteers who are both competent and kind. They are a pleasure to work with and make the whole experience enjoyable. And, although I have worried about the time spent on ACS away from my family, it also occurs to me that I am setting an ex-

ample for my teenage daughter. She sees that I am willing to put actions behind my words and make time for what is important to me. How do you put a value on that?

So, for those of you out there who have never tasted this type of volunteer experience, I encourage you to give it a try. Just pick up the phone,

In Memoriam

Adapted with permission from the Midland Daily News

William Albert (W.A.) Rogers Jr

W.A. Rogers Jr., a 50-year member of ACS, died February 10, 2007. W.A. graduated from Texas A&I University with a degree in chemistry. After working as a high school chemistry teacher, he began work with The Dow Chemical Company in Lake Jackson, Texas, in 1950. He moved to Midland in 1973 and worked for Dow in research and development for a total of 37 years. Through his career, he was the laboratory director for several research departments, director of R&D for Dow Texas Division, and director of R&D for Dow North America. He retired in 1987 as the global director of R&D for Dow. W.A. joined the American Chemical Society in 1956.

W.A. is survived by his wife Marilyn Rogers of Midland, three children and their spouses, nine grandchildren, and three great-grandchildren.

'Human' Faces in the Periodic Tables

By Stacy L. Daniels

There once was a great chemical company,
That put good seed money as certain paid fees,

Visioning a science, morning to night, elementally.
Doctoral thesis: how signature diamonds, have periodically,

Come in size and shape be run front to back, and praise be,
Both large and small, mountains are to moles, as you can see.

From pure unambiguous change, pose quite radically,
That there need be no crazy lunatics, nor be insensibility.

Learn rough basics; cf. cryptic praise; ref. pure rubric. Clearly,
Past time to debut in tables and be in magazines, new human faces, her or he.

Project SEED Students Succeed in 2006

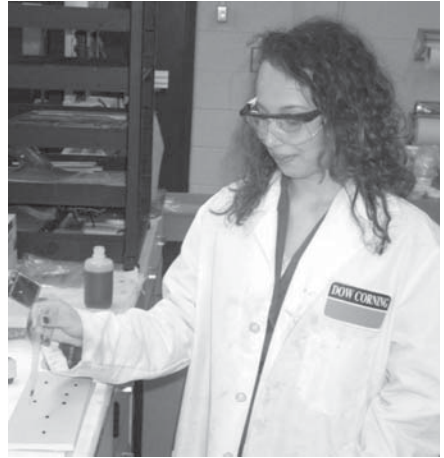
By Peggy Hill

Every year, the Midland Section sponsors several high school students to participate in Project SEED. This past summer, two students took part in research at two different locations: Brettny Sample, a junior from John Glenn High School, worked with Frances Fournier at Dow Corning, and Kyle Beasley, also a junior from John Glenn High School, worked with John Blizzard and Wendy Klein at Raven Analytical Labs in Midland. Both were SEED I students.

Brettny Sample's project dealt with silicone addition to gypsum as a means of altering the hydrophobicity of gypsum. Homeowners and builders are interested in gypsum hydrophobicity because drywall, which is a gypsum-based material, could be made less prone to mold growth if its hydrophobicity could be increased.

Brettny ran a comprehensive, multivariable survey in which she compared natural gypsum and synthetic gypsum, adding a range of silicone polymers in several different concentrations to create test blocks. She then tested the water uptake properties of the blocks by soaking them in water for 2 hours and measuring the change in weight before and after soaking. Her results show some very promising leads to new formulations that could improve drywall manufacture in the future.

Kyle Beasley spent his summer contributing to a large, multi-year analytical project involving testing of the Saginaw Bay watershed. For his part, Kyle sampled three sites every week, recording air and water temperature and water flow rate. A portable test kit allowed him to determine nitrate, phosphate, and dissolved oxygen content, pH, and turbidity. He also tested for bacterial contamination using overnight incubation of samples streaked onto cul-



ture media. To verify and standardize his portable test kit results, Kyle learned to use a pH meter and UV spectrophotometer in the lab at Raven Analytical.

Both Kyle and Brettny spoke well of their summer experiences, although only Brettny will be returning for a SEED II summer. Both are currently seniors at John Glenn High School in Bay City and are planning to attend college in the fall.

The contributions of the 2006 mentors made this program successful. Much time and effort was spent by these people to develop suitable projects and then mentor students through 8 to 10 weeks of full-time work on these projects. Of special note are the contributions of Frances Fournier, who has mentored three SEED students in their SEED I and II summers since 2002.

Summer Workshops Offered for High School Chemistry Teachers

From National ACS

The American Chemical Society is sponsoring teacher training workshops this summer throughout the country for high school chemistry teachers. Two types of workshops are available.

Advanced High School Chemistry, Teacher Training Workshops, led by experienced secondary and college chemical educators, provide participants with tools for teaching an inquiry-based honors or advanced high school chemistry course such as IB or AP. The activities used in these three-day workshops are from the ACS college text, *Chemistry*, which emphasizes short experiments to introduce chemical concepts, and promote active and collaborative learning. All interested advanced high school chemistry teachers are encouraged to apply, regardless of current textbook.

Chemistry in the Community, Teacher Training Workshops are designed for teachers using or intending to use the ACS textbook *Chemistry in the Community*. In these five-day workshops, experienced ChemCom teacher leaders provide expert instruction and hands-on experience with many of ChemCom's activities and laboratory investigations.

There is a \$50.00 registration fee for each workshop, which includes all materials, meals and on-site housing. The date and location closest to the Midland Section is July 8, Concordia University, Ann Arbor, MI.

More information, application forms and/or online registration may be found at www.chemistry.org/education (follow the link for workshops and courses).

2007 Turner Alfrey Visiting Professor Course

By Steve Keinath

Editor's Note: This is an early announcement for the visiting professor program. Please see the web site and the June issue of The Midland Chemist for additional information.

- 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 advance with the Registrar by visiting www.mmi.org, emailing registrar@mmi.org, 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.

Middle School Mentoring Program Kicks Off Activities

By Dee Strand

The Midland ACS received a grant from the United Way Women's Initiative to be used for the 2006–7 school year to establish a mentoring program to encourage girls in the field of science or math. While the main goal is to promote girls' interest in these fields, it is very difficult to single out a given population during the traditional school day. Also, it tends to be difficult to attract students and mentors to activities after school. Therefore, our first activities are open to both boys and girls and are currently targeted at the middle school level.

The kick-off meetings for students and mentors occurred the last week in February, and the program will run until the end of the school year. A description of the mentoring opportunities is given below. We can always use more mentors! If you are interested, please contact Dee Strand (strandda@dow.com).

Central Middle School, Midland

This biweekly remediation program strives to assist students who demonstrate some difficulty in the areas of math and/or science. While developing a club-like atmosphere, mentors will work one-on-one with 8th grade math and science students:

- Reinforcing concepts through example
- Applying this knowledge to real life
- Introducing upcoming class content
- Inspiring interest in math and science!

Mentors and students will meet during the lunch period, every Tuesday and Thursday through the end of May.

We have approximately 15 students in the program, and approximately 15 mentors of which half come every Tuesday, and half come every Thursday.

Rewards are planned for students with regular attendance. Metrics of improvements on test scores as well as general interest in science and math by the students are being tracked.

Northeast Middle School, Midland

The after-school science club meets weekly from 3:00–4:00 p.m. and extends science beyond the classroom setting. Students in 6th through 9th grade may choose to participate in various science competitions and activities, such as the Rube Goldberg Project Competition and Academic Track. Additional club activities may include a heart dissection, Earth

Day activity, web quest, and additional mentor topic demonstrations.

Science Olympiad is a one-day competition that takes place March 24 at Delta College. Student preparation for the program takes place weekly, every Wednesday from 3:00–4:00 p.m. Mentors will serve as assistant coaches, helping prepare students for the competition, asking students about their progress, sharing their ideas, and possibly presenting mini lessons on a topic.

We currently have two mentors for our after school programs.

In Past Issues of *The Midland Chemist*

By Wendell L. Dilling, Midland Section Historian

- **40 Years Ago This Month**—In The Chairman’s Column by D. R. Weyenberg: “It was heartening to see the good attendance for Dr. Riley’s excellent lecture on bioluminescence at our March Seminar. We expect to see this trend of increasing attendance continue as more of our members recognize that this seminar series has become a very important part of the technical program offered by the Midland Section.”
- **30 Years Ago This Month**—In A Funny Thing Happened When I Ran for the ACS Board of Directors by David C. Young: “I think the strong opposition (to my candidacy for national Director-At-Large) may be at least partly attributable to the Fair Elections Practices petition. I intend to press for adoption of some more of that petition even if it isn’t possible to get it all passed.”
- **20 Years Ago This Month**—In 1986 Midland Section Activities Highlighted: “The rain didn’t dampen the spirits of the nearly sixty participants who attended the Third Annual Authors’ Night program at Saginaw Valley State College, on September 29th. Actually it was more than just rain that may have limited attendance at this tribute to those Section members who published or patented during 1985. It was more the fact that much of the geography covered by the Section had been declared a federal disaster area due to heavy flooding.”
- **10 Years Ago This Month**—In Help Wanted: “The 29th ACS Central Regional Meeting needs your help. Volunteers are needed to help with various aspects of the meeting, including meeting site preparation, registration, clean-up and whatever else comes along! For your efforts, you will receive free admission to the barbecue to be held Thursday evening. The meeting officially runs May 27-30, 1997, but help will be needed before, during and after the meeting.”

Important Dates on the ACS Midland Section Calendar

- Apr. 5 Deadline for registration for Tri-Sectional Professional Development Conference (Mary Kay Heidtke, mkheidtke@aol.com)
- Apr. 9 Midland Section board meeting, 7:00 p.m., CMU Leonard E. Plachta Education Center, Ridgecrest Rd. (off Waldo in Midland), (Dee Strand, strandda@dow.com)
- Apr. 13 Deadline for reservations for Spring Science Education Recognition Dinner (Scott Gaynor, sggaynor@dow.com, 989-638-1806)
- Apr. 14 Tri-Sectional Professional Development Conference, 8:30–9:00 a.m. (registration), 9:00 a.m.–3:00 p.m. (program), University of Detroit Mercy, Chemistry Building - McNichols Campus, 4001 W. McNichols Rd., Detroit (Mary Kay Heidtke, mkheidtke@aol.com)
- Apr. 16 Carolyn Fisher, McCormick & Co., ACS Tour Speaker, “Spices & Herbs: Chemistry & Health,” 4:00 p.m., Dow Science Building, Rm 175, Central Michigan University (Choon Lee, lee1cy@cmich.edu)
- Apr. 21 Earth Day, 10:00 a.m.–2:00 p.m., Alden B. Dow Museum of Science and Art, Midland Center for the Arts (Dee Strand, strandda@dow.com)
- Apr. 21 Henry Pollack, speaking on climate change, 4:00 p.m., Midland Center for the Arts, (Dee Strand, strandda@dow.com)
- Apr. 25 Spring Science Education Recognition Dinner, 6:00 – 9:00 p.m., Dow Corning Cafeteria, Midland (Scott Gaynor, sggaynor@dow.com, 989-638-1806)
- May 7 Deadline for June issue of The Midland Chemist
- May 14 Midland Section board meeting, Delta College University Center, 7:00 p.m., Room TBD

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