

THE MIDLAND CHEMIST

A publication of the Midland Section of the American Chemical Society

Vol. 47, No. 1

February 2010

www.midlandacs.org

From the Chair

A New Decade Arrives

It's hard to believe that it is 2010 already. I trust all of our membership has had a great start to the new decade.

I attended the meeting at CMU of the student affiliates in December. I asked the audience, "What types of members are in the ACS?" The answer of course is "volunteers." This is what makes the Midland Section ACS such a vibrant, award-winning Section—its members who volunteer. I have watched and read about all the programs, meetings, and projects our members have done in the past years. There has not been an issue of *The Midland Chemist* without an article about our membership programs, all of which were done without remuneration or self-thought. Of all the things that make up this Section, it's our membership involvement that is the strength behind us. I thought I would individually acknowledge some of these volunteers. However, when I took a good look at the list, I realized that I would fill the next few volumes of *The Midland Chemist*.

So rather than take up all that space, to all our 700+ members, I want to say "Thank You." I would also

like to say that we are not done yet. It is not news that we have many great programs in the Section. This is why I would like to solicit your help and invite not only members but also friends of the Section who are looking for a place to put in some effort to take a look at our programs. If you see something that sparks an interest, please let me or the chair of the committee know your desire to volunteer or learn more about a particular program. Those who know me will tell you that I am always looking for fresh, new ideas for our existing programs and for new programs.

So what can you expect from us this coming year? This year is already building into another banner year for the Section due to the hard work of quite a number of our volunteers. We are looking forward to a number of enhanced outreach programs, technical presentations, and alliances. Last, but definitely not least, we are also looking forward to more member involvement, mentoring, ideas, and training. To that



John Blizzard

In This Issue

Chair Column	1
Letter to the Editor	1
Meet 2010 Section Leaders	2
Scott Rettelle, Interim Editor	2
News from National	3
In Memoriam: R. Anderson	3
National Lab Day	4
Kids & Chemistry	5
MMTG Adopt-A-Family	6
In Past Issues	7
Attn: Volunteers	7

Calendar for Feb/Mar

Feb 15	Committee Meetings
Feb 15	Board of Directors Meeting
Mar 5	SPARK Demos
Mar 8	Midland Chemist Deadline
Mar 15	Committee Meetings
Mar 15	Board of Directors Meeting

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

end, I look forward to hearing from our membership on any issue, idea, or suggestion you might have to continue improving our Section in the coming year. Please do not hesitate to contact me by e-mail, snail mail, or phone with your input. I am looking forward to this year with great anticipation.

Letter to the Editor

Thanks, Ann

This letter is to express my personal gratitude and the thanks of the Midland Section to Ann Birch for the most outstanding service she has provided as the Editor of *The Midland Chemist* for the past ten years. This is a much longer time than any previous editor had served.

I was Section Chair in 2000 when we needed a new editor. Ann immediately came to mind because of the outstanding job she had done as Section Secretary for a couple years and her background in writing and editing. Ann graciously accepted the po-

sition for which I have been most grateful all these years. Of all the decisions I made as Section Chair, recruiting Ann for this job was probably the most important. Ann did a superb job as editor, keeping the flow of information to Section members coming in a most efficient and timely manner.

Ann has set the bar very high for the next editor to maintain the quality of *The Midland Chemist*, a local section publication that has a very high reputation around the country.

Wendell Dilling

Scott Rettelle, MC Editor

Be Patient!

Please be patient with us as we transition *The Midland Chemist* to new leadership. There will be some bumps in the road and probably several delayed issues. Having said that, we would be happy to bring more people on board to help with *The Midland Chemist*, as writers or to work with advertising, which we would like to increase this year. Let us know if you are interested in working with us.

Thank you!

Erin Vogel, Secretary; photos by Andrea Alexander, Publicity

Meet the 2010 Midland Section Leaders

The contact information for the 2010 Board of Directors and committee chairs for the Midland Section is located below and on the next page. Please don't hesitate to contact a board member or committee chair with any questions or if you are interested in volunteering. There is always room for additional committee members or volunteers. Come to a board meeting and see what's going on. *Editor's Note: The year in parentheses indicates when that position is up for election. A member of the executive committee is indicated by an asterisk.*

Board of Directors

Chair*	John Blizzard	jdblizzard@quadsil.com	496-1434
Chair-Elect*	Pat Cannady	jpcannady@gmail.com	832-0217
Secretary*	Erin Vogel	evogel@dow.com	638-9048
Treasurer*	Janet Smith	janet.smith@dowcorning.com	496-6860
Past-Chair*	Angelo Cassar	angelo.cassar@att.net	631-7128
Councilor (10)	Kurt Brandstadt	k.f.brandstadt@dowcorning.com	496-5185
Councilor (11)	Bob Howell	bob.a.howell@cmich.edu	774-3582
Alt. Councilor (10)	Gretchen Kohl	gretchen.kohl@dowcorning.com	496-8200
Alt. Councilor (11)	Dale LeCaptain	lecap1dj@cmich.edu	774-3993
Chair, Nom. & Elec. Directors	Kevin Wier	kevin.wier@dowcorning.com	496-4596
	Jennifer Dingman (12)	j.dingman@dowcorning.com	496-7756
	Tina Leaym (12)	tina.leaym@dowcorning.com	496-6001
	Gang Lu (12)	g-lu@alumni.northwestern.edu	835-3556
	Gina Malczewski (11)*	gina.malczewski@dowcorning.com	496-4158
	Ann Norris (11)	a.norris@dowcorning.com	496-7047
	Dee Strand (11)*	strandda@dow.com	636-5056
	Wendell Dilling (10)	dilli1wl@cmich.edu	631-1621
	Steve Keinath (10)*	keinath@mmi.org	832-5555 (x588)
	Dave Stickles (10)	dstick44@chartermi.net	496-3273

(Continued on page 3)

Scott D. Rettelle, Midland Chemist Interim Editor

From a Plate to a Platter

While working in the chemical industry, I had always heard about ACS, but never knew exactly what it was or what it had to offer. Wanting to know more about it, I joined ACS in December 2008. However, as a new member of ACS, my participation was very limited. Actually, it was none. In March, I joined a group called the Mid-Michigan Technician Group (MMTG). Once again, my participation was zero until last summer when I was asked if I wanted to be Chair for MMTG in 2010. I said, "Sure." Without warning, I was instantly transformed into Chair-Elect. Having no prior experience, I started attending meetings in September. Then and there, I realized that to be an effective Chair, I needed to attend the monthly Midland Section



meetings to ensure MMTG was being well represented.

At my first Section meeting, I heard the call for volunteers for something called Demo Training, which is part of the outreach program Kids & Chemistry. Once again, I volunteered. I now found myself attending Demo Training sessions after work and found them quite informational and enjoyable. In late fall, I presented a budget for MMTG to the Midland Section. Soon after, I found as Chair-Elect of MMTG, it was highly recommended that I attend the ACS Leadership Training in Ft. Worth, TX. There, I met all kinds of new, friendly, and interesting people. The seminars and lectures were very informative. I look forward to applying the lessons learned from there and sharing them with others in the near future.

The last Section meeting I attended, I heard the call for someone to replace a well-known, well-liked, and long-time member, Ann Birch, as editor of the Section newsletter, *The Midland Chem-*

ist. Having still not learned my lesson, I volunteered for the position as interim editor under the auspices of Ann. Since then, Ann has been very helpful to say the least. She has created some "quick guides" for me during this transition so as not to drown me in a sea of information. If I have an issue (no pun intended), Ann has always answered my calls promptly.

Half a year has gone by since that summer day when I said, "Yes." My plate now has become a platter—piled high with knowledge, memories, and wonderful people. I have no regrets. As an ACS and MMTG member, the people I have met have been interesting and amazing. As part of the Demo Team, the things I get to do have been fun and educational. And as editor, I look forward to listening to, talking with, and meeting those who have been part of the Midland Local Section who continue to make *The Midland Chemist* the outstanding newsletter that it is today.



Section Officers (l-r): John Blizzard (chair), Erin Vogel (secretary), Janet Smith (treasurer), Kevin Wier (N&E chair), Pat Cannady (chair-elect); (kneeling) Angelo Cassar (past chair)

(Continued from page 2)

Committee Chairs for 2010 (group leaders in parentheses)

Administrative Committees (J. Blizzard, A. Cassar, J. Smith)

Executive	John Blizzard	496-1434
Nominations & Elections	Kevin Wier	496-4596
Awards	Diana Deese	496-5277
Corporate Agent	Mike Owen	631-7339
Long Range Planning	Angelo Cassar	631-7128
Historian	Wendell Dilling	631-1621
Government Affairs	Bob Howell	774-3582
Program	Pat Cannady	832-0217
Membership	Jennifer Dingman	496-7756

Communications Committees (position open)

Publicity	Andrea Alexander	496-5822
The Midland Chemist	Scott Retelle	496-5099
Website	Ann Birch (til 04/10)	832-7485
Annual Report	Angelo Cassar	631-7128

Technical Committees (G. Kohl)

Technical Society Interface	Eldon Graham	964-4127
Fall Scientific Meeting	Matt Gave	496-5642
MMTG	Scott Rettelle	496-5099
Student Member Grp - Alma	Sean Mo	463-7131
Student Member Grp - SVSU	David Karpovich	964-4349
Student Member Grp - CMU	Dale LeCaptain	774-3993
	Sharyl Majorski	774-3416
Younger Chemists	Todd Bryden	636-8667
	Yinzhang (Eugene) Guo	636-9841
Careers & Prof. Relations	Anthony Revis	496-8700

Committees on Outreach (G. Malczewski)

Kids and Chemistry	Lisa Thackery	496-4077
Gina Malczewski, 496-4158		
Minority Affairs	position open	
Scholarship	Bob Howell (contact)	774-3582
	Carol Keinath	832-8890
National Chemistry Week	Gretchen Kohl	496-8200
	Angelo Cassar	631-7128
Project SEED	Estelle Lebeau	774-3116

(Continued on page 4)

National ACS

News from National

ACS-Hach High School Chemistry Grant

The ACS-Hach High School Chemistry Grant is awarded to chemistry teachers with innovative ideas that transform classroom learning, foster student development, and reveal the wonders of chemistry. Applicants can request up to \$1,500 to support their ideas. Applications are due on April 1, 2010. Apply for the ACS-Hach High School Chemistry Grant today at www.acs.org/hach.

ACS Careers Job Club Webinars

ACS Careers Job Club Webinar Forums features moderators Lisa Balbes, Ph.D., and James Burke, Ph.D., ACS Career Consultants with a combined 40 years of experience in assisting hundreds of job seekers in the chemical industry. The launch is Tuesday, March 9, 2010, with a 20-minute topic presentation followed by a Q&A session. Subsequent forums will be held the second Tuesday of every month from 1 to 2 pm ET. Please visit www.acs.org/careers to register for this free service.

In Memoriam

Richard Anderson

Richard E. Anderson, 90, of Midland, died on Dec. 25, 2009, at home. Richard was born in Kalamazoo on Oct. 26, 1919, to the late Ruth (Balch) and Earl Anderson. On Nov. 4, 1973, he married Helen Kinney at the United Church of Christ in Midland. Richard worked for The Dow Chemical Company as a chemical engineer for 33½ years, retiring in 1979. He joined the American Chemical Society in 1947 and was an emeritus member. He was also a member of the American Institute of Chemical Engineers and the Chippewa Nature Center. He delivered meals to homes for the Council on Aging. Richard is survived by his wife, Helen, two daughters, two sons, and several grandchildren.





Committee Chairs (l-r): Pat Cannady, Lisa Thackery, Dave Stickles, Jennifer Dingman, Gina Malczewski, Eldon Graham, Wendell Dilling, Andrea Alexander

(Continued from page 3)

Project Science Literacy	Mike Ferritto	496-3244
Sci-Fest	Dave Stickles	496-3273
	Joan Sabourin	686-9250
Chemistry Olympiad	Janice Tomasik	774-3330
Science Promotions	Janet Smith	496-6860

Committees on Designated Funds (J. Blizzard, J. Smith):

School Project	position open
IPG Grant	position open
Watershed Program	position open



(l-r) Kurt Brandstadt (councilor), Gretchen Kohl (alt. councilor), Dale LeCaptain (alt. councilor)

National ACS

President Obama Announces National Lab Day

On November 23, President Barack Obama announced the establishment of National Lab Day, an effort supported by ACS and 190 other organizations representing more than 6.5 million science, technology, engineering, and math (STEM) professionals.

The first National Lab Day is tentatively set for early May 2010 and will be part of a large, ongoing STEM initiative called "Educate to Innovate." ACS and other organizers hope National Lab Day will help stimulate more hands-on science learning by fostering enduring collaborations between individual STEM professionals, teachers, and students. ACS Chemistry Ambassadors are already making these connections. To join the effort or learn more, visit www.acs.org/chemistryambassadors and www.nationallabday.org.

Lisa Thackery, Outreach Group, Kids & Chemistry

Kids & Chemistry: Upcoming Events

Kids & Chemistry has already lined up a busy schedule for 2010 with new requests still coming in. We definitely need volunteers interested in helping out at events or even running science demos at schools and community outreach programs. Many activities would only require a one-time commitment for one hour. Please continue to check the calendar on the Midland Section website (www.midlandacs.org) for dates and venues being planned and contact the folks below if you would like to become involved:

Gina.Malczewski@dowcorning.com

Lisa.Thackery@dowcorning

Also consider joining us for event planning meetings as well as demo training/experiment practice sessions.

We have some specific upcoming events that need volunteers:

Science Olympiad—Bay City Handy Intermediate School is in immediate need of mentors and coaches to help teams prepare during after-school practices for a regional Saturday competition. Contact Lisa for more info.

Big Brothers/Big Sisters—Teaming Up with YOUTH after school program at local elementary schools is looking for volunteers for 30 minute demos or hands-on science activities. Consider volunteering for one session as they either start at 4:00 or 4:15. Please contact Lisa for a list of school options and dates and to discuss the program and possible demos.



SPARK—March 5: A 45-minute a.m. demo session at Hemmeter Elementary school in Saginaw Township for 1st and 2nd graders. Pick a shift: 8:40–9:25, 9:35–10:20, or 10:25–11:10.

Explore Day—April 23: 50-minute demo sessions at St. Thomas Aquinas school in Saginaw Township. Pick a shift: 8:30–9:20, 9:30–10:20, 10:30–11:20, or 12:30–1:20.

Earth Day—April 24: Kids & Chemistry will likely be participating with a themed demo station.

Bay City Science Fair—Opportunities for judges, project mentors, demos on award day. Contact Gina for more info.

Kids & Chemistry is active all year round participating in events throughout all five counties of the Midland Section. We also spend a great deal of time gathering materials, trying to find grants, experimenting with demos, meeting with teachers, science coordinators, and program directors in the community to bring as much sci-

ence to our area youth as possible. We also plan and organize our own programs and participate in most of the Midland Section's other events such as Earth Day and SciFest.

One example of a new Kids & Chemistry event took place this past November 14 and was funded by ACS-National's Innovative Grant. Camp Chemistry: "COLOR," was held as an all-day Saturday workshop for Junior and Cadette Girl Scouts (4th–8th grades) and took place at Central Michigan University. It was an extension of the pilot Camp Chemistry program held in the spring of 2009 and is based on a program developed by Dr. Sheryl Tucker of the University of Missouri. Dr. Tucker has been offering these workshops to Girl Scouts for over 10 years and has generously shared her materials with the Midland Section.

For this most recent session, over 70 girls were in attendance with over 20 adults (Troop Leaders and parents). The day was based on a rotation through four different laboratories where the girls performed hands-on experiments. Lab activities included gold indicator paper and pH paper color charting with red cabbage indicator, testing the pH of several house-



(Continued on page 6)

(Continued from page 5)

hold products, paper chromatography with M&M candy coatings, and learning about the chemistry of dyeing cotton with fiber-reactive dyes. The girls got to tie-dye "Camp Chemistry" T-shirts, experienced lunch in a campus dining hall, and were led in a discussion with a guest speaker. Jennifer Stasser from Dow Corning Corporation

talked to the girls about science careers and gave a presentation on color, light, and microscopy. The girls earned science patches, received a gift bag with ACS newspapers, giveaways, and were given brochures and stickers from CMU. Special thanks go out to Katelyn Carter, a CMU grad student who spent a considerable amount of time helping coordinate the program and to CMU ACS Student Members and Chemistry

student volunteers who guided the girls through the laboratory experiments. This second installment of Camp Chemistry received much positive feedback from the Girl Scout participants and their leaders. Girl Scouts Heart of Michigan wants to continue to partner with the Midland Section to bring more such opportunities to girls around the state.

Amy Tesolin-Gee, Midland Chemist Assistant Editor

MMTG Brightens Christmas for Local Family

The 2009 holiday season saw members of the Mid-Michigan Technician Group (MMTG) working together to make Christmas a little brighter for a struggling area family through The Salvation Army's Adopt-A-Family program.

Each year, hundreds of families apply and qualify for this assistance. The 2009 holiday season was particularly tough. Of the 880 families who applied, only 291 were adopted. The Salvation Army states there was an increase in the number of families overall, the number of very large families, and those where one or both parents were unemployed.

The call for donations was extended not only to the MMTG membership, but to the Dow Chemical and Dow Corning technician groups, as well as the local ACS community. Thanks to the responses of several generous people, a total of \$491.47 was collected. This enabled us to purchase gifts and a holiday meal for one larger sized family. In addition to the monetary support, several people also volunteered their time to help with shopping, wrapping, and gift delivery.

Our assigned family was headed by a single, working mother and included four boys and one girl, ranging in age from 10 to 17. Contact with the mother was established to obtain the family's wish list. Books, clothes, and shoes were common items on the kids' lists. There were also requests for some electronics items. When asked what she would like, the mother hesitated to name anything. With prompt-

ing, she shyly indicated that a toolbox or home improvement store card would be good.

Equipped with copies of the family's wish list and the accumulated donation money, volunteers gathered for a planning lunch at Pi's restaurant. Each chose a family member for whom to shop and wrap gifts over the following two weeks. A portion of the donation money (\$83) was set aside to purchase a Walmart gift card for the family to purchase their Christmas meal. Envelopes containing equally divided portions, per family member, of the remaining money were distributed to each shopper.

The bargain-shopping skill of the MMTG volunteers is to be commended. Each found creative ways to stretch the \$68 that was budgeted per family member. To accomplish this, people took advantage of their own personal coupons, sales, and spouses' employee discounts.

Michelle Rivard took bargain shopping to a whole new level when she uncovered several great deals for various family members. Her find of a requested series of used, hardcover books, which were still in new condition at Sleepy Hollow bookstore, was impressive. She also found a used copy of a video game that was requested by another family member, but which came with a warranty, and at a fraction of the retail price. If not for this great deal, it would not have been possible to purchase the game along with the other, more practical gifts.

All donated money went toward the family's gifts and grocery card. The family was also provided with a set of gift receipts in the event an item needed to be exchanged. Sales receipts for all purchases were also submitted to The Salvation Army. In adding up the receipts, it became evident that the

overall sum spent on the family exceeded the total amount of money originally collected. This was due to peoples' generosity in adding a bit more of their own dollars while shopping, bringing the grand total of donations to \$527.26.

Early Christmas week, the gifts were collected from the shoppers and delivered to the mother by meeting at a local parking area. This was at her request so she could keep the gifts a surprise to her kids. The packages were transferred to the family's well-used vehicle. With a shy "thank you" and what appeared to be a look of relief, she was on her way.

MMTG would like to express sincere appreciation to the donors and volunteers who made the 2009 Adopt-A-Family effort possible.

Volunteers: Maggie Covington, Tammy Fowler, Dana Fuerst, Deb Mendrick (co-coordinator), Gerard Nowaczyk, Michelle Rivard, Janet Smith, and Amy Tesolin-Gee (co-coordinator).



MMTG on Facebook

As the face of networking through MMTG (Mid-Michigan Technician Group), ACS, and other organizations changes, so must the way we communicate with our members. To address this issue, at the end of 2009, MMTG set up a group on Facebook. We are encouraging members to join us on Facebook to stay up-to-date with what is happening with the group. If you are already on Facebook, please feel free to join the MMTG Group. However, you do not need to be a member of MMTG to join our Facebook group.

Wendell Dilling, Director and Historian

In Past Issues of *The Midland Chemist*

40 Years Ago This Month

In *It Could Never Happen* by Dr. L. Michael Carson, Associate Professor, Department of Chemistry, Central Michigan University: "During the past year the university (CMU) has taken positive action to bring this school into step with the rest of the nation. Old plans have been scrapped and the faculty has become involved on many levels of planning. Merit and other incentive schemes are being explored to improve teaching and research on the campus. We are being asked what buildings and space will be needed to grow toward a Real University. The administration is trying to increase the level of training of the faculty by encouraging the staff to get Ph.D.'s.

I think it is just these new steps that have made the field fertile for the seeds of collective bargaining. Nearly 60% of the faculty is non-tenured, without Ph.D., and an assistant professor or instructor. This figure seems incredible, but it is these very people who control our university.

With this as a background let me relate to you the events of the last six months. Last spring a petition was circulated by the MAHE (Michigan Association of Higher Education). The petition was for an election to have MAHE represent the faculty as a single collective bargaining agent. The election was to be held this fall.

When the faculty returned this fall, the announcement was that the election was to be held in two weeks. MAHE placed three professional propagandizers on campus and they used the time very effectively. The Chemistry staff, as an example, considered the passage very unlikely, since only about 57 out of 600 of the faculty are members of MAHE and most of these are in Education. We made no concerted or organized effort to oppose the election since none of us were in favor of the union. We did not think of the fact there are no instructors on the Chemistry staff and all but one of us has a Ph.D. It could never happen.

We later found that many of the faculty had been told that they should get their degrees or their contracts would not be renewed next year.

These people voted. The vote was 239-221.

How will collective bargaining affect Chemistry? One thing has already happened. The administration has been forced into an adversary role. Even though Chemistry and the administration agree that the union will hurt the University, they cannot even discuss means of combating this cancer. We need information from them which they cannot give us because the law will not allow it."

30 Years Ago This Month

In *Educational Services Committee Report* by Gary Rabold, Chairman Educational Services: "The Educational Services Committee provides the mechanism for section members to encourage and assist education in chemistry and related fields.

Recent activities have included:

- 1) Coordinating arrangements between local college and chapter members who will tutor students in chemistry and related subjects.
- 2) Arranging for a research experience for high school junior at a local college under the framework of Project Catalyst.
- 3) Providing subscriptions to SciQuest for six high school chemistry teachers in Midland public schools."

20 Years Ago This Month

In *To Members of the Midland Section*: by Wendell L. Dilling, Midland Section Councilor; Linneaus C. Dorman, Midland Section Councilor; Frank Popoff, Chairman, Campaign Executive Committee: "The ACS is in the midst of its largest fund-raising campaign ever, the 'Campaign for Chemistry,' with a goal of \$35 million. The money is for a group of special projects and programs that require funding above and beyond what is available through our normal revenue sources.

Ernest Eliel, Chairman of the ACS Board of Directors from 1987 to 1989, recently described the purpose and status of the Campaign in the December 11, 1989, issue of *Chemical and Engineering News*, page 49. Briefly, Campaign funds will be used for three programs to foster public understanding of science and a small part of a major expansion of Chemical Abstracts Service.

One of the three public understanding programs involves several innovative education programs for elementary school, high school, and college students, most of whom will not become scientists. The second program is to develop a Science in American Life exhibit at the Smithsonian Institution in Washington, D.C. The third is to expand and develop the Beckman Center for the History of Chemistry."

10 Years Ago This Month

In *Views of a Physicist Congressman* by Chitra Subramaniam: "The United States must maintain and improve its preeminent position in science and technology in order to advance the understanding of the universe and all it contains, and to improve the lives, health and freedoms of all peoples.' This was the opening statement of Congressman Vernon Ehlers (R-MI) as he addressed a gathering of the Midland Section of the American Chemical Society on November 22, 1999. In 1997, Rep. Ehlers was assigned the task of leading the development of a long-range science and technology policy for the nation. The recommendations of the policy can be viewed at http://www.house.gov/science/science_policy_study.htm."

Scott Retelle, MC Editor

Attn: Volunteers

Membership Committee

What: Committee members

Skills: Interest in working with chemistry colleagues and outreach

Contact: Jennifer Dingman

989-496-7756

j.dingman@dowcorning.com

Publicity Committee

What: Photographers

Skills: Interest in digital photography

Contact: Andrea Alexander

989-496-5822

andrea.alexander@

dowcorning.com

Website Committee

What: Webmaster

Skills: Comfort with working in web environment

Contact: Ann Birch

989-832-7485

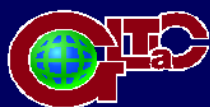
ann.birch@editech-mi.com

***What did
you miss
in 2009?***



***Join us
in 2010!***





Global Language Translations and Consulting, Inc.

Technical translations since 1996



LESS

Cost - Quality - Time

MORE

FAST-TRANS™

Machine Translation (MT)

- Fastest turnaround
- Lowest cost
- Rapid document screening
- "Gist" type translation
- Text only

KWIKTRANS™

Machine Aided Translation (MAT)

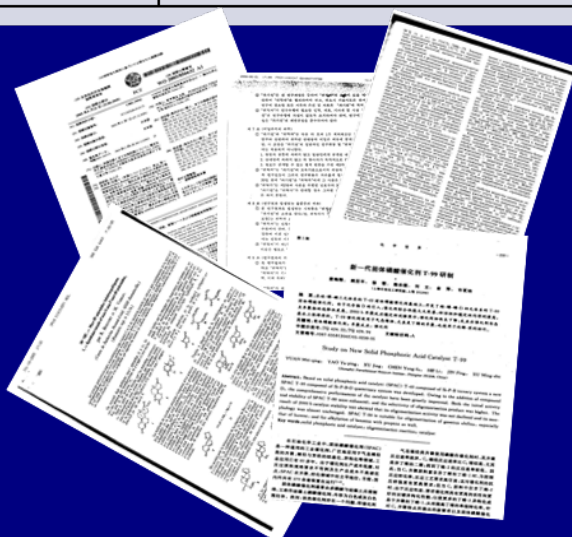
- Human post-edit of MT
- Better quality than Fast-Trans
- 80%-90% of full human quality
- Charts, Tables, Graphs

Human Translation (HT)

- Best quality
- Native language translators
- Subject Matter Experts
- Competitive rates
- Volume discounts

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



DOW CORNING



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>

Volunteer Staff

Scott Rettelle Interim Editor
989-496-5099
newseditor@midlandacs.org
Amy Tesolin-Gee Assistant Editor
Dave Baker Writer
Peggy Hill Writer

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 2010 Midland Section of the American Chemical Society

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. 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, John Blizzard, at 989-496-1434.

Place postage
here

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