

# The Alembic



Newsletter of the Central Wisconsin Section of the American Chemical Society

## Chair's Corner

Colleagues: This is an unusual Chair's Corner for a very simple reason. On August 25, I had a small (yes, small!) heart attack, and one of the things I have to do is to reduce the stress in my life. One way to do this is to cut back on things, and the Central Wisconsin Section is one of those things that I will have to reduce my visibility in (at least until I have recovered and have figured out how to do this without raising my stress level). Our section is in trouble, and the last thing we need is a partly-competent leader. Fortunately, I have a strong executive committee to help me complete my year as Chair.

So... This month's Guest Columnist is Marv Lang. Heere's Marv!

**Dave Lewis**

**“Is our future in Jeopardy?”** It has been many years since the Chartering Meeting signaling the formation of the Central Wisconsin Section, ACS on September 22, 1972. From that festive beginning our Section established a “fall-winter-spring” timetable for its monthly meeting program complete with a typical “Welcome announcement” for first issue of the Alembic each Fall. This year it is different. Our local Section is struggling! Our 2009 Chair has health problems which require that he relinquish many of his duties. The current leadership of the Section is comprised of individuals who are filling the position for the second and third and even fourth time. For the Central Wisconsin Section to continue as a viable entity of professional chemists and engineers, we need new people to step into leadership roles.

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### ACS - CWS Mini-Directory

#### Chair

David Lewis  
UWEC  
Eau Claire, WI 54702  
phone (office) 836-4744  
email: [lewisd@uwec.edu](mailto:lewisd@uwec.edu)

#### Chair-Elect

Steve Leiterman

#### Secretary - Treasurer

Tip Randall

#### Councilor

C. Marvin Lang

#### Alternate Councilor

Dave Lewis

#### Newsletter Editor

Jason D'Acchioli  
Dept. of Chemistry, UWSP  
phone (715) 346-2297 (office)  
email: [jdacchio@uwsp.edu](mailto:jdacchio@uwsp.edu)

FOR IMPORTANT INFORMATION . . .

The ACS-CWS Web Page  
([www.uwsp.edu/chemistry/acscws/](http://www.uwsp.edu/chemistry/acscws/))  
contains up-to-date information about  
section activities including the  
Alembic and meeting notices.



Visit the ACS web site at:  
[portal.acs.org/portal/acs/corg/content](http://portal.acs.org/portal/acs/corg/content)



The national American Chemical Society has undertaken various surveys and research projects to learn about its membership. It is no surprise to learn that our membership is aging. While there seems to be a “steady-state equilibrium” in the membership totals over recent years, the average age is increasing. CWS is no exception. So, why is our Section’s future in Jeopardy? Well, we simply need you to step up and be willing to serve on the Executive Committee, to assume a leadership role, and to support the activities of the Section. There are many positions of leadership that could use your help (membership, national chemistry coordinator, Chemistry Olympiad coordinator, Alembic editor, etc.) Further, have you ever considered standing for election to be the Chair of the Section, its Secretary/Treasurer, its national Councilor or Alternate Councilor? Why not?

While service to the ACS and the Central Wisconsin Section is not required, it is an obligation that each member ought to consider a part of their professional life. I have conversed with a variety of ACS members across the Nation about the issue of “professional service” and am frequently asked “What’s in it for me?” Personal involvement in service organization (Rotary, Lions, Community Chest, etc.) was at one time viewed a “plus” when periodic reviews of employment were taken. Some of us can remember when our membership dues to the ACS, TAPPI, AIChE and other discipline oriented organizations were paid by the our employer.

This is no longer the case! Too, our supervisors (department heads, division leaders, administrators, deans, provosts, chancellors, presidents) seemed to value our service to the profession. In many instances, this is no longer the case. It seems that in some companies, institutions and universities, involvement in service and professional organizations is even discouraged. So, how does one respond to the rhetorical question ... “What’s in it for me?” I really can’t offer a succinct answer that question; I can only say that involvement in the ACS has opened many, many doors for me – academically, socially and professionally. The experiences, the excitement, the sense of accomplishment, and even the times of discouragement have all made my 48 years of membership in the ACS worth it. I wouldn’t change a thing except that I should have worked harder to get you involved! The year 2009 is a watershed year for CWS. There are many, many valid reasons for not becoming involved (family, job, other organizations, etc) in the local American Chemical Society. However, please re-consider adding another element to your busy schedules – if it be only attendance at the monthly meetings. The next meeting will be held on Tuesday, September 22nd (thirty-seven years since our Charter Meeting) at UW-Stevens Point. The topic is Nonoscience and there may even be some refreshments! Finally, the Section simply needs some new people in leadership roles to carry us into the second decade of the third millennium. Won’t you consider being one of

those leaders so that our future won’t be in jeopardy?

Thanks of listening,

**Marv Lang**



THE ACS-CWS WELCOMES MICHAEL P. ZACH

***Undergraduate discoveries being made of  
new low-tech approaches  
for high-tech nanomanufacturing***

**7:30 PM, Tuesday, September 22, 2009**

**A121 Science Building**

**UW-Stevens Point**

Making patterned structures with reproducible size, shape and composition is a very difficult process that normally requires much expensive equipment and is painstakingly tedious due to the many different steps of coating, patterning, deposition and removal of the materials. To fabricate highly organized structures with precision is normally limited to those companies who own or lease million dollar clean room

fabrication facilities. In the past year, a team of undergraduate students, a postdoctoral researcher, and a chemistry professor from UWSP in collaboration teamed with scientists at Argonne National Laboratory's Center for Nanoscale Materials to develop an entirely new electrochemical method for making large numbers of patterned nanowires. The process is unique in a number of ways. In contrast to all the other known methods, the template is not sacrificial. Complex nanomanufacturing can be done on a simple bench top and does not require pristine conditions. If contaminated, the electrodes can be restored to pristine conditions simply by mechanically stripping of the contamination or an aggressive treatment with concentrated acids. Future experiments are focusing on increasing the volume of patterned wires, making complex circuits and expanding the range of materials and applications

BIOGRAPHY



Mike is a native of Wisconsin and a true believer in what people from small towns can do if given the chance and the confidence. He is now an assistant professor of chemistry at the University of Wisconsin - Stevens Point and a coach for scientific advancement for his students. As an alumnus of UWSP, he didn't realize what that

preparation could lead to. Mike has worked as a professional gas station attendant, artist/goldsmith, as a graduate student researcher at University of California - Irvine and as a scientist at University of

California - Berkeley, NASA and Argonne National Laboratory. He is currently a faculty member residing in Stevens Point with his wife Karen. He has been given a number of awards including having his research be featured on the cover of Science magazine (ranked #59 most cited of nearly 19,000 articles with the word "nanowire" in the title). One other Science article is the #1 most cited publication for hydrogen sensors). At Argonne he made the world's fastest mass producible hydrogen sensors that won an R&D100 Award and a Micro/NANO25 Award by being named as one of the 100 most significant discoveries added to the marketplace for 2006. He is currently the 2008-2009 Wisconsin Innovation Scholar of the year for his recent discoveries of new methods for making nanowires.

**Dinner will be held at Michelle's Restaurant (513 Division Street, Stevens Point, WI) at 6:00PM (Socializing at 5:30PM)**

**Dinner reservations can be made with Cristina Altobelli (caltobel@uwsp.edu, 715-346-2888) by Monday afternoon, September 21, 2009**



**238th National Meeting of  
the American Chemical  
Society Washington, DC  
August 16-20, 2009**

**C. Marvin Lang, Councilor**

Four years ago, August 2005, I attended the national ACS meeting in Washington, DC. That year it was also "hot & sticky." As the Council meeting was concluding four years ago, many of my fellow Councilors representing the Gulf Coast region of the USA were experiencing cancelled flights and the uncertainty of devastating weather patterns. We now know that a new word has been added to our lexicon that conjures up destruction ... Katrina. It was very close to exactly four years ago that the monster hurricane hit New Orleans and it seemed to bring up a flood of memories at this Council meeting. Anyway, the following summary reports what I consider to be key actions of the ACS Council and Board of Directors at the 2009 Fall National Meeting from which I just returned.

**Elections**

I reported to you last spring that there would be two candidates for President-Elect 2010. Since that time, a third candidate - by petition - has been certified. Thus, candidates for the ACS national election to be conducted this fall will be as follows:

**President-Elect 2010**

*Nancy B. Jackson*, Manager, International Chemical Threat Reduction Department, Sandia

National Laboratories,  
Albuquerque, NM

*Cheryl A. Martin*, Currently on sabbatical; former Corporate Vice President and General Manager, Rohm and Haas Company, Philadelphia, PA

*Mary Virginia Orna*, Professor of Chemistry, College of New Rochelle, New Rochelle, NY

Regarding this election, members will continue to have the opportunity to vote either by paper ballot or electronically. Election security will involve use of your membership number and a randomly generated "pin number." Such measures are necessary to insure that members only vote once. Also, the Central Wisconsin Section is assigned to District V and our membership will have the opportunity to vote for a member of the Board of Directors.

**Director, District V -  
2010-2012**

*Judith L. Benham*, Retired, 3M Company, St. Paul, MN

*Peter K. Dorhout*, Vice Provost, Colorado State University, Fort Collins, CO

**Statistics**

As of Wednesday, August 19, 2009, the ACS Fall National Meeting had attracted 4,319 registrants. This was the largest Washington meeting in history. Totals in select categories are as follows: Regular attendees 8,575; Students 3,159; Guests 462; Exhibit Only 676; and Exhibitors 1,447. In keeping with the objective of the National Meeting Long Range Financial Plan, previously approved by the Board of Directors and Council, the

Meetings and Expositions Committee recommended to the Board an increase of \$10 for the 2010 national meeting registration fee. The Board will act on this recommendation shortly.

**Dissolution of the Division  
of Chemical Technicians**

At the 2009 spring Council meeting, the Divisional Activities Committee (DAC) reported that it had voted to accept a recommendation from the Division of Chemical Technicians (TECH) that the division disband and to recommend this action to Council in the fall. On recommendation of DAC, as recommended by TECH, the Council VOTED to disband the Division of Chemical Technicians effective December 31, 2009. DAC agreed that TECH has accomplished its mission of enhancing the status of technicians in the American Chemical Society, and now they are integrated into the other technical divisions.

**Membership Activity**

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

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### The Society's Finances

In view of the ongoing global recession and its impact of the Society's finances, the Board received an update on the Society's current financial position and the projected financial performance for 2009. The Society is projected to end the year with a net contribution from operations of \$11.2 million, or \$528,000 favorable to the 2009 approved budget. The favorable projection is largely the result of Contingency Plan actions and expense management initiatives implemented in early 2009, which are expected to fully offset revenue shortfalls in the Approved Budget across several categories.

### Constitution and Bylaws

The Council received two amendments to the ACS Constitution and Bylaws for action: "The Petition on Candidate Selection by Member Petition – (to be considered for Urgent Action)" and the "Petition on Election Timelines and Procedures 2009."

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

o Next, the Council discussed in great detail the Petition on Election Timelines and Procedures

2009. This petition proposes to shorten certain election timelines and change petition candidates (who go straight on the ballot if they obtain enough signatures) to petition nominees (who need to be screened by Council along with other nominees chosen by the Committee on Nominations and Elections). After rejecting a request to have a recorded vote, the Council VOTED to recommit the petition to the Committee on Nominations and Elections with instructions. Following this action, N&E sought input through a nonbinding survey to help guide their revisions. A revised petition will likely be up for action at the 2010 spring Council meeting.

The Council received one petition for consideration: the Petition on Admissions Committee. This petition removes the Admissions Committee from the Bylaws and transfers its functions to the Council Committee on Membership Affairs. Action is expected on the petition at the 2010 spring meeting.

### Board Committees and Task Force Actions

The Board of Directors VOTED to approve nominees for the 2010 Perkin Medal and the Alan T. Waterman Award. The Perkin Medal, awarded by the American section of the Society of Chemical Industry to a scientist residing in the US, recognizes innovation in applied chemistry resulting in outstanding commercial development. The Alan T. Waterman Award, presented by the National Science Foundation, recognizes an outstanding young researcher in any field of science or engineering.

The Committee on Public Affairs and Public Relations announced the designation of "Dip-and-read Tests for Blood and Urine Glucose" (work of Al and Helen Free) as a National Historic Chemical Landmark. The committee also reported on its approval of a new healthcare policy statement, received from the Committee on Economic and Professional Affairs.

On the recommendation of the Committee on Budget and Finance, the Board VOTED to fund a new program (Science Coaches) and to reauthorize an existing program (ACS Green Chemistry Institute®) in the 2010 budget.

The Board VOTED to approve an action recommended by the Committee on Professional & Member Relations to accept with minor revisions the key terms contained in a draft Memorandum of Understanding (MOU) between ACS and the Royal Society of Chemistry. The MOU: a) offers an opportunity for the ACS and RSC to develop and distribute a "primer," both in hard-copy and electronic format, to provide the wider population with a basic understanding of the chemistry underlying issues related to sustainability; b) provides a series of joint seminars in the UK, US and elsewhere with participation by scientists, media and decision-makers to focus on sustainability; and c) supports collaboration on activities that train scientists to address issues relating to sustainability and other global challenges in non-technical, readily understandable communications.

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### Other Society Issues

The Board received a briefing from its Chair on her recent meeting with International Union of Pure and Applied Chemistry (IUPAC) leaders and plans for the International Year of Chemistry-2011 (IYOC-2011). The Board also was briefed by International leaders from the European Association for Chemical and Molecular Sciences (EuChemS), the German Chemical Society, the Korean Chemical Society, the Mexican Chemical Society, the Royal Society of Chemistry, and the Serbian Chemical Society on their strategic directions and on their plans for IYOC-2011.

With the creation of the ACS Leadership Development System, the Society is now better positioned to create the skilled leadership needed to advance as the world's largest scientific society and to achieve its mission. In recognition of this achievement, the Board awarded plaques to its Oversight Group on Leadership Development for outstanding work on this major initiative.

The Board received a briefing on a new program to equip ACS members to be more effective spokespersons for chemistry. It is called the Chemistry Ambassadors program, and information may be found at [www.acs.org/chemistryambassadors](http://www.acs.org/chemistryambassadors).

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At this meeting, Don Showalter and I were again invited speakers to the High School Teacher Day program sponsored by the ACS Division of Chemical Education. On Sunday afternoon we presented "Is It Chemical Magic or Magical Chemistry" to over 100 enthusiastic DC area high school teachers. As always, we had as much fun as did the attendees. Regarding my personal involvement in the ACS, I continue to represent CWS in the Council and hold memberships on the Committee on Meeting and Exhibitions and the Committee on Community Affairs. Each of these assignments requires attendance at numerous meetings, sub-committee meetings and focus group meetings. Most of the material discussed is interesting but most could be easily condensed to one or two simple sentences. At our next Section meeting in September let me talk to you about International Year of Chemistry-2011 or one of the other programs of local interest that CWS could be involved with. Anyway, once again, thank

you for electing me to serve you as Councilor from the Central Wisconsin Section.

**Marv Lang**



## CALL FOR "MEETING IN MINIATURE" PRESENTATIONS

Following last year's very successful Meeting in Miniature we decided that we should have another one this year! Dana Haagenon at UW Center, Marshfield graciously agreed to host our meeting on the Marshfield campus again this year. We are scheduled for the evening of Tuesday, November 17.

At a meeting in miniature we have several short talks and poster sessions presented by members of our own Central Wisconsin Section. We get to learn more about what our colleagues are doing. It is fascinating and it is an excellent networking opportunity.

The presentations do not have to be highly technical or polished. Talks should be less than 20 minutes in length in order to accommodate multiple speakers.

At past meetings in miniature we have forgone the usual pre-meeting dinner and substituted that with snacks between sessions. Poster sessions were in the same room with the snacks. Talks were in a nearby lecture hall. We will probably have the same format again. Please let me know if you would like to change something.

If you would be willing to present either a 20-minute talk or a poster please contact me by e-mail at [thiel@wctc.net](mailto:thiel@wctc.net) or by telephone at 715-887-4338. Note, these are my home e-mail address and phone number. Please do not use my old UWSP accounts, since I have retired and those accounts are defunct.

Thanks!

***Dave Thiel***

