

# *the Alembic*



## Chair's Corner



Greetings to you all from the banks of the beautiful Chippewa River! As I prepare to function as Chair of the Central Wisconsin Section of the ACS for the next 18 months, I am going to be asking all of you to help me to keep our local section vibrant and effective. In fact, I hope to see and meet all of you at some time during the next 18 months.

In February, I went to San Antonio for the Local Section Officers' Meeting, and at this meeting they asked me to set goals for my term as Chair. Given the recent history of Chairs of this section, my answer might have been, "To serve the complete term." At that meeting, I did set some goals, but I don't think that they are actually what I want to accomplish. So we will ignore them. There are three things, however, that I believe we can accomplish in the next 18 months.

The first goal pertains to membership. Our demographics are quite atypical, in that we have an inordinately large number of older or retired members in the section. What has not happened, at least not to the degree that I would like to see, is the involvement of new, younger members in our section. For this reason, I would like to have our section explore the prospect of generating a Younger Chemists Committee. Of course, if this is to

be successful, it will have to be driven by those same younger chemists: mandates from above seldom succeed. So, you younger chemists, expect to be contacted by me to see how we can get you all networked and going.

The second goal pertains to public relations. Practically every one of us has at some time seen the impact of negative press about chemistry and chemicals. This is not the place to get up on my soap-box (preaching to the choir changes nothing), but I believe that our local section can do a signal service to our science by reviewing web sites used by local media when they need information about chemistry and chemicals. Too often, the reporters charged with writing the story have insufficient scientific background to allow them to distinguish real science from pseudoscience on the web. I am going to ask that we involve not only our section membership, but also the membership of our Student Affiliate Chapters in this effort. I have a contact with the Wisconsin Newspaper Association, and they would be more than happy to be the beneficiary of this kind of scientific review of the web -- both the good sites and warnings about pseudoscientific sites.

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### ACS - CWS Mini-Directory

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American Chemical Society

Central Wisconsin Section



**"Caves - Worlds within the World:  
An Introduction to the Chemistry, Geology and Ecology of Caves"**

by

**Professor John R. Marquardt**  
Eastern Illinois University

Thursday, September 14, 2000  
8:00 PM Phillips Hall 7  
UW - Eau Claire

5:30 - 6:00 Cash Bar, 6:00 - 7:30 Dinner, Sweetwaters Restaurant

**Abstract**

Cave science, or speleology, offers an important means of learning about the earth's geological history from the inside out. Caves are the three-dimensional worlds within our own two-dimensional surface world, "worlds within the world." Caves can be aesthetically beautiful, challenging, and sometimes fearsome. Prof. Marquardt has been exploring and studying caves for several decades. He will take you on a slide-show tour of a number of fascinating caves across the United State with particular attention to the chemistry and geology that created them and how caves differ across the country. We will explore what speleology can tell us about the ancient history of our planet, such as some surprising revelations about the climate at the earth's surface hundreds and even thousands of years ago. This presentation is designed for an audience of varied interests and backgrounds technical or non-technical. It is interdisciplinary in content, combining chemistry with geology, hydrology, and earth history to show how and where caves are formed and why environmental concerns are particularly serious in cave (Karst) regions.

**Biographical Sketch**

John R. Marquardt is a professor of chemistry at Eastern Illinois University in Charleston, IL. His area of research involves applications of analytical and physical chemistry to environmental problems. He is active in a wide variety of field-based conservation and restoration projects involving subterranean environments (caves and mines), especially throughout the Midwestern and Southwestern United States. He often works in collaboration with state agencies such as the Illinois Department of Natural Resources, federal agencies such as the USDA Forest Service, and private conservation groups such as Bat Conservation International. He is past-president and an executive officer of the Near Normal Grotto, the mid-Illinois chapter of the National Speleological Society, and is a director of the Illinois Speleological Survey. His interest in caves dates from his early childhood when his family took summer vacations in cave areas of Indiana and Kentucky and he would join his older brother in cave exploring. Beginning as a sport, his interest in caves has broadened to include the scientific and technical aspects of caves and caving. He holds a B.S. in chemistry from the University of Arizona in Tucson and an M.S. and Ph.D. from the University of Illinois in Urbana/Champaign. After his Ph.D., he worked as a research chemist for Shell Development Company in Emeryville, California (five years), taught at Mercer University in Macon, Georgia (10 years), and currently teaches at Eastern Illinois University in Charleston (20 years). He also regularly teaches summer classes in physical chemistry at the University of Illinois in Urbana/Champaign and collaborates on research with this institution. Since becoming an ACS tour speaker in 1995, Dr. Marquardt has presented more than 60 society sponsored lectures on cave science.

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The social mixer at 5:30 and dinner at 6:00pm will be at Sweetwaters Restaurant, 1104 W. Clairemont Ave, Eau Claire (near the intersection of Clairemont (US 12) and State Highway 37). Dinner reservations should be made by contacting **Bob St. Louis** at (715) 834-3774 or email [stlouir@uwec.edu](mailto:stlouir@uwec.edu) **before noon on Thursday, September 14.**

## Year 2000 ACS Schedule

Month	Date	Speaker	Topic	Location	Host
September 2000	Thursday September 14	John Marquart	Caves: Worlds within the World	Eau Claire	Bob St Louis
October 2000	TBA				
November 2000	November 2	Tip Randall	Patent Systems Updates	Eau Claire	David Lewis
December 2000	December 7	Ronald Haas	Tour of Marshfield Clinic Laboratories	Marshfield	Ronald Haas

Chair's Corner (from page 1)

The third goal relates to the next generation of chemists. I am not certain that I am correct, but I do not believe that the UW Colleges have Student Affiliate Chapters at present. If this is correct, I would like to see us institute them so that we expose these students, too, to the collegiality that the ACS Student Affiliates can give them.

Of course, we have won Phoenix Awards for our National Chemistry Week endeavors in the past, and I would be more than happy to have us receive another. It might even be nice to receive another Outstanding Local Section award (we do have one, don't we?).

So there you have it: a litany of things to do, something which may be entirely appropriate as we enter the political season.

There remains only for me to publicize the next two meetings of the Central Wisconsin Section, where I hope you will be able to join us. This month, Dr. John Marquart will be speaking in Eau Claire; his host is Dr. Bob St. Louis, and the abstract of his talk appears elsewhere in this issue of the *Alembic*. In October Dr. Kenneth Abate from our section, who was to speak, has relocated to California. We will try to plan an alternative for that meeting.

As we enter on the new academic year, I wish you all the best for this new season.

Best regards, *David*

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### ACS-CWS Web Page

<http://chemdept.uwsp.edu/acscws/>

or you can link there from the American Chemical Society home page - Local Sections. Contains the most up-to-date information about section activities.

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### Councilor's Report 220<sup>th</sup> National ACS Meeting Washington, DC

C. M. Lang  
UW-Stevens Point

The second national ACS meeting of the new century was held in Washington, DC during late August. The weather was outstanding ... cool and sunny with temperatures in the 70's. For those of you who have traveled to Washington, DC in August, I'm sure you find this comment most unusual. I attended this meeting as your Councilor. Some very interesting statistics were revealed at the Council meeting, held on Wednesday, August 23<sup>rd</sup> in the recently completed Ronald Reagan Building. The Chemical Exhibition was sold out (269

companies/organizations purchased 461 booths) which translates to 2406 exhibitors. Add that to 10,916 registrants and a few foreign guests and you get 13,368 meeting participants as of that morning! Over 60% of the participants used the new "on-line" method for obtaining housing ... and I was one of them!

A parade of officers before Council (President Daryle Busch, President-Elect Attila Pavlath, Immediate Past President Ed Wasserman, Executive Director John Crum, Chairman of the Board Hank Whalen) shared and extolled the strengths, virtues, and concerns for the future of the American Chemical Society. One conclusion is the ACS is in excellent financial shape with a projected contribution to the Society's reserves of \$8.5 M for fiscal 2000. Next year's revenue budget will top \$340 M. Further, the Society enjoys a retention rate of over 94% and is universally respected for its pre-eminence in primary and secondary scientific publishing. There has been a 20% increase in the use of the electronic version of *C&EN*. At this meeting the ACS Board of Directors agreed to an

alliance with the Green Chemistry Institute and will invest nearly \$2 M in this joint venture over the next five years. A significant number of patents have been granted to universities in recent years based on research conducted by faculty and students. Concern was expressed that such a royalty stream may create unplanned disadvantages ... "have" & "have not" faculty ... resulting in curiosity driven vs. commercially driven research. It was noted that the ACS has tripled its effort in the realm of government relations and science policy. In 2000 a "**Legislative Action Network**" was launched which acquaints any member with action items that have a major science component. Members (volunteers) of the Society who are a part of this network are encouraged to make their voice and views known to their respective congressional delegations. I am a member of the Network and if you are interested in becoming involved, please contact me at the next CWS meeting or give me a call [(715)346-3609].

The actions and decisions of the Washington, DC Council meeting have begun to appear in *Chemical and Engineering News* (C&EN September 4, 2000 p.4) and you can read about them in future issues. However, let me say that there was no really burning issue(s) decided. Some of you may be interested to know that the long standing Fertilizer Division was dissolved by vote of the Council and its membership and assets will be incorporated to the Agrochemicals Division. Others

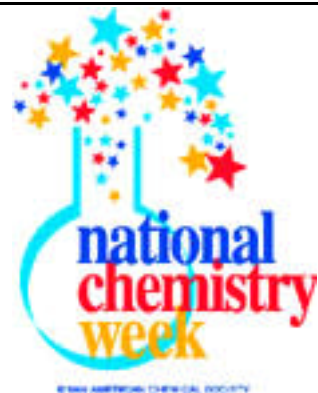
of you may have interest in a masters degree program for high school chemistry teachers. The degree will be in the molecular sciences and the ACS is committing \$35 K for investigation and planning. A new Office of Graduate Education has been established with Marjorie Casserio as Director.

I continue my service on the Council Committee on Constitution & Bylaws that usually meets all day Sunday before the start of the technical sessions and which has a session immediately following the close of the Wednesday Council meeting. I am also a member of the National Chemistry Week 2000 Task Force's which has primary cognizance over the Society's out-reach program known by the same name. This year's theme is "**Kitchen Chemistry**" and the week is November 5-11, 2000. I trust every member of CWS will become involved in this year's Section activities. The Society will make available a variety of items for use in various out-reach programs. For information on CWS's involvement, contact Chair, Dr. David Lewis at UW-EC or me. Also, you may want to check with the national office [(800)-ACS-5558] or visit their Web site and online store [<http://www.acs.org/ncw>].

The ACS national elections will be conducted this fall. Please be sure to vote. Candidates for President-Elect are Glenn Crosby of Washington State University and Eli Pearce of the H. F. Mark Polymer Research Institute – Brooklyn. Of further interest to

CWS, candidates for election to the Board (2001-2003) from District V (formerly Region V) will be Ted Brown (Univ. Illinois) and Ann Nalley (Cameron Univ.). Much more could be reported but I shall stop here. See me at the next Section meeting and we'll talk. Oh, before I forget, **Greetings to all CWS'ers from our former colleague and Chair, Al Denio!!!** I'm sure it doesn't surprise anyone to know that he is now a Director of the Delaware Section of the ACS.

*Maru*



**IT'S TIME TO CELEBRATE!  
NATIONAL CHEMISTRY  
WEEK 2000 IS ON THE  
HORIZON**

The ACS Office of Community Activities invites you to start planning your participation in National Chemistry Week 2000. Involve your community in learning about the importance of chemistry by using the theme for this year—"Kitchen Chemistry." Join with chemists across the country as they share the chemical story of what happens in the kitchen by conducting demonstration shows and hands-on activities for the

public. Consider becoming involved in the unifying event for NCW 2000 — a food collection campaign to benefit your local charities. For more ideas and information about NCW activities in your area, call 1-800-227-5558 ext. 6097 or visit the website [www.acs.org/ncw](http://www.acs.org/ncw).

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### Central Wisconsin Section of the American Chemical Society Honors Chemical Educator and Students

by Tom Marty

The Central Wisconsin Section of the ACS, at its monthly meeting held in Wausau on Thursday, April 27, recognized and gave awards to three individuals for their outstanding contributions to the chemical enterprise. The ACS is the world's largest professional organization dedicated to a single science. The Central Wisconsin Section of the ACS consists of chemical professionals residing in fourteen counties in the central part of the State. In addition to the faculty and staff of university and college campuses within the borders of the Section its members are employed in the paper industry, medical and diagnostic health career programs, insurance companies and other technically related fields.

**Sue Harrington**, chemistry teacher from **Marshfield Senior High School** was named the **Outstanding High School Chemistry Teacher for 2000**. Sue was identified through the accomplishment of her students. It is simple – in three of

the last four years the outstanding high school chemistry students recognized by the CWS-ACS have been Sue Harrington's students. Elaine Denny, this year, Dustin Nest – last year, and Corbin Sullivan in 1997. These students are identified through the score they write on an exam administered by the CWS-ACS at UWSP. Sue Harrington's name will be added to that of 21 other outstanding teachers who have received this award reaching as far back as 1974.

**Elaine Denny**, senior at **Marshfield High School**, was recognized as the **Outstanding High School Chemistry Student**. The outstanding high school student award is based on the performance on the ACS Local Section Chemistry Olympiad Exam. The senior with the highest score is recognized with the award. This senior, along with seven other students, is eligible to take the National Chemistry Olympiad Exam, which will be given April 15, 2000 at UWSP. Sue Harrington, Elaine's high school chemistry instructor, describes her as an excellent student. She is planning on obtaining post-secondary education at Williams College in Massachusetts. Her desire is a post-secondary educational experience with a strong liberal arts component and with emphasis in chemistry and a foreign language. This year 7 schools and 103 students participated in the ACS Local Section Chemistry Olympiad Exam. UWSP Professor Laura Cole, coordinator and grader of the Local Section Exam, mentioned that the two top scores on the

exam were those of Marshfield Senior High students.

**Monica Cea Plaza**, junior at UWEC was the recipient of the **Outstanding College Chemistry Student Award**. In addition to being an excellent classroom student Monica is doing undergraduate research on the "Copper-catalyzed Aziridination of Olefins by PhINTs; Synthetic and Mechanistic Studies. In March she collaborated in a poster presentation of the project at the National ACS meeting in San Francisco. Dr. Jason Halfen, Monica's faculty mentor for the project, describes her as an intelligent, gifted, bilingual student who works diligently and precisely. She recently prepared a new aziridination catalyst that has unsurpassed reactivity. This work will be submitted to the *Journal of the American Chemical Society* for publication. In addition Dr. Halfen states that Monica serves as an important role model for all of our students and for women students in particular. Monica has also served as a Chemistry and Math tutor in the UWEC Academic Skills Center and a Chemistry tutor at the Chippewa Valley Technical College. She plans to continue her pursuit of a career in chemistry by obtaining a doctorate. Monica originates from Madrid, Spain and first came to the Eau Claire area as a foreign exchange student about 10 years ago.

Beth Weston, representative of the National ACS office, presented on the topic, "Boogie-Boarding the Internet: Getting the Most Chemistry from the World Wide Web."