

the Alembic



Chair's Corner



I hope everyone had a good summer and are ready to participate in local section activities this fall. We will learn about Chemical Weapons, Brewing, Monoclonal Antibodies, and Agates. National Chemistry Week (NCW), October 19-25th, is fast approaching and focuses on the "Earth's Atmosphere and Beyond". Since our NCW coordinator moved out of the section, I decided to dedicate this corner to making you aware of ways you might get involved in NCW.

One of the activities members with children or grandchildren in youth groups (such as the Boy Scouts, Girl Scouts, 4-H Clubs, Campfire USA, or YMCA) might consider is helping group members earn the NCW Activity Patch. In order to obtain the patch it is recommended that the youth complete one activity related to two or more of the following categories: a) Having Fun with NCW, b) Learning about Careers in Chemistry, c) Learning about Chemistry and d) Serving the Community. Suggestions for activities for all of these categories can be found on the ACS WEB site:

<http://www.chemistry.org>

(select NATL CHEM WEEK from the Quickfind menu).

I also encourage those with access to K-12 classrooms to help teachers participate in the Kindergarten-12th Grade Poster Contest for "Earth's Atmosphere and Beyond!" Students are invited to draw a poster illustrating contributions made by chemists to the advancement of aviation or atmospheric chemistry. The 4 grade categories

include K-2, 3-5, 6-8 and 9-12. The rules state that the poster must be original work 14 in. x 22 in. in size and not on foam board. The entries may be drawn using crayons, markers, colored pencils, or paint. On the back of the entry, it is required to include the name of the student, grade of student, student address and phone, school, school address and phone and the teachers name. Entries will not be returned. If you would like me send information to a specific teacher, please send me the teacher's name and address by October 10, 2003. Teachers should send entries to me at UWSP by December 1, 2003. The ACS Central Wisconsin Section executive committee will select the poster winners in our local section. The winning posters will be recognized by the local section and submitted for the national competition. The national winner will receive a Handheld Color TV and an Honorable Mention will receive a set of Talk-About 2-Way Radios in each grade category. More information, including ideas for topics, is available on the NATL CHEM WEEK page listed earlier. (Select NCW poster contest.)

Our next meeting is Wednesday, September 10, 2003 in Wisconsin Rapids. Dr. Robert J. Radel will speak on Chemical Weapons: What, Where, and How.

I look forward to seeing you then and hearing about your plans for NCW!

Robin

ACS - CWS Mini-Directory

Chair

Robin S. Tanke
Dept. of Chemistry, UW-SP
Stevens Point WI 54481
phone (715) 346-4325(office)
email rtanke@uwsp.edu

Chair-Elect

Don Showalter

Secretary - Treasurer

Tip Randall

Councilor

C. Marvin Lang

Alternate Councilor

Dave Lewis

Newsletter Editor

Tom Zamis
Dept. of Chemistry, UW-SP,
Stevens Point WI 54481
phone (715) 346-3258(office)
email tzamis@uwsp.edu





"Chemical Weapons: What, Where, and How"

by

Dr. Robert J. Radel

U.S. Army Dugway Proving Ground

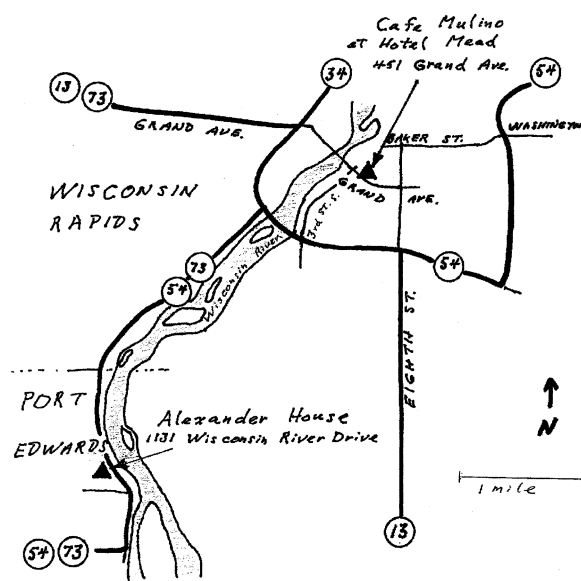
September 10, 2003

Wisconsin Rapids

The signing and ratifying of the Chemical Weapons Convention by the United States has confirmed our move to destroy what may be the most dreaded weapons in the arsenal of nations. This talk will take a quick look at what chemical weapons are, where they are stored, and how this country is dealing with the destruction of these weapons in safe and environmentally sensitive processes. We will begin by looking at the types of weapons our national arsenal holds, their effects on humans, and the problems with their storage for indefinite periods of time. We will then take a quick tour of the storage area locations and their proximity to populated areas. Finally, we will take a look at operational methods of destruction as well as some that are in the research and development stages.

About the Speaker

Dr. Robert J. (Bob) Radel received his B.S. in chemistry from the University of Cincinnati in 1971. He received his Ph.D. in heterocyclic chemistry under the direction of Dr. Bill Paudler from the University of Alabama in 1978. Bob's graduate work involved the development of synthetic methods for the preparation of as-triazine-2-oxides. Since that time, he has worked as a research chemist at TVA's National Environmental Research Center. His research has included such diverse areas as catalytic carbonylation reactions and the synthesis of urease and nitrification inhibitors, as well as the removal of sulfur gases from gasification streams. As manager of the Chemical Research Department at TVA, Bob pushed the implementation of total quality management in Research and Development. This push resulted in his department maintaining productivity in research during some very trying times of downsizing in the agency. Bob left TVA and through a stroke of fate, ended up on Johnston Island in the Pacific where the world's first incineration plant for chemical agents exists. From there, Bob traveled to Dugway Proving Grounds. Dugway is almost as isolated as Johnston Island, but you can get in a car and drive to civilization! He is currently the Division Director of the Chemical Test Division. Bob has been a member of the American Chemical Society since 1970. He has held local section offices for the Wilson Dam Section as chairman, program chairman, publicity chairman, and editor of the newsletter. He received the Outstanding Member Award from the Wilson Dam Section for the Year 1980-81 for helping to revitalize the Florence Area Chemical Technology Show (FACTS).



Gather at 5:30, eat at 6:00 at Café Mulino in the Hotel Mead, 451 E. Grand Avenue in Wisconsin Rapids. Hotel Mead is three blocks east of the Wisconsin River on East Grand Avenue. Please see map. Please call or e-mail Dave Thiel at (715) 422-2470 (days), (715) 887-4338 (evenings), dave.thiel@storaenso.com before noon on Tuesday to make a reservation for dinner.

Meeting begins at 7:30 at the Alexander House, 1131 Wisconsin River Dr. in Port Edwards on Highway 54,73. Please see map. To get there from the Hotel Mead:

- 1 Go west to the first stop light at 3rd St.
2 Turn left (south) onto 3rd St. and proceed about to the Riverview Expressway.
3 Turn right, cross the river, turn left at the end of the bridge onto highway 54, 73.
4 Proceed approximately 4.0 miles on the trip odometer. The Alexander house is on your right. The Alexander House is a combination art gallery and historical museum, and will open especially for us at 7:00 pm.

* * * * *

ACS - Central Wisconsin Section 2003 Meeting Schedule

DATE	LOCATION	SPEAKER	TOPIC	HOST
Sept 10	Wisconsin Rapids	Robert Radel	Chemical Weapons: What, Where, How	Dave Thiel
October 15	Stevens Point	Robert Bates	The Chemistry and Alchemy of Brewing	Tom Zamis
November	Marshfield	Kevin Lang	Monoclonal Antibodies	Dana Haagenson
December 9	Stevens Point	Doug Moore	Agate Über Alles	Steve Bondeson

ACS-CWS Web Page

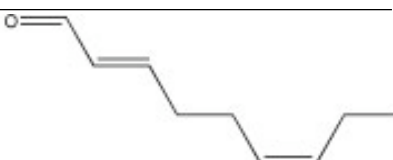
www.uwsp.edu/chemistry/acscws/

Contains the most up-to-date information about section activities including all issues of the Alembic and meeting notices.

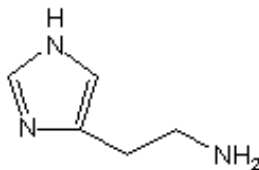
Molecules of the Month



α -Linolenic acid, an isomer of octadecadienoic acid, occurs naturally in meat, vegetable oils, and fat-containing dairy products. Dietary Studies indicate that adding linoleic acid to animal feed could provide some health benefits, but there is no conclusive evidence that humans benefit from linoleic acid supplements, and some people experience adverse side effects.



Cucumbers are the quintessential low-fat food, but their familiar smell comes from fatty acids. **(E,Z)-2,6-nonadienal (NDE)**, the main aroma component, forms when two fatty acids, linoleic acid and linolenic acid, begin to break down shortly after the cucumbers are sliced. NDE also contributes to the signature odors of cantaloupe, kiwi fruit, chocolate, and tea.



Histamine is the chemical messenger that antihistamine medicines try to block. Histamine is released by mast cells during an allergy attack and can produce multiple biological effects including bronchoconstriction (asthma), vasodilation (watery eyes, runny nose), and gastric acid secretion.

2003 ACS-CWS Awards Banquet

About 40 Section members, award winners and spouses attended the annual Awards Banquet and Spouses Night last May at the University Center on the UWSP campus. John Fortman of Wright State University was the guest speaker, and entertained the crowd with demonstrations relating to the "Chemistry of Flight."

Congratulations to the award winners:

Outstanding High School Teachers

David Ley & Richard Lind
Mosinee H.S.

Outstanding High School Student

James Brasington,
Marshfield H.S.

Outstanding University Student

Dan Holloway, UWSP

Service to the Section

Tom Zamis, UWSP

Section member Mel Gleiter was recognized as a 50 year ACS member. Thanks to Robin Tanke and Marv Lang for making arrangements and hosting the event.