



Our Next Tour Speaker: Dr. R. Paul Philp

Thursday November 29, 2002 7:30PM Room T-170 Columbia Basin College (Note Room Change! Map Inside!)

Forensic Geochemistry, or Who Was Responsible for the spill?

Abstract As soon as organic compounds are spilled into the environment, changes will start to occur to them as a result of weathering process. For example with crude oils changes will range from evaporation and loss of light ends to extensive biodegradation and loss of many of the compounds typically used for correlating spilled oils with their original source. As a result of these weathering processes, it is often difficult to correlate the spilled oils with their suspected sources. It is essential that these correlations be made to determine who is responsible for the spill and who pays for the clean-up process. There are a number of sophisticated techniques available for this type of forensic geochemistry, which can be used for correlating weathered samples with their respective source materials. In this talk specific emphasis will be directed towards the most recent technique for use in this area namely gas chromatography combined with isotope ratio mass spectrometry (GCIRMS). Examples will be presented to demonstrate that the isotopic composition of individual compounds in complex mixtures, such as crude oils, can be used to correlate them with their weathered counterparts. It is clear from the results that GCIRMS is a powerful new tool in forensic geochemistry particularly when combined with the more traditional techniques such as GC and GCMS. Other applications will be described to demonstrate that GCIRMS can also be used to determine the source of leaks from underground storage tanks and sources of gases from leaking pipelines. Variations in the isotopic composition of the MTBE added to gasolines also provides the opportunity of using GCIRMS as a means of monitoring, and determination of the source of, gasoline spills from underground storage tanks. Applications are many and varied but with this relatively new technique the ability to correlate heavily weathered samples with their unweathered counterparts has been elevated to a new level and provided forensic geochemistry with a new dimension.

Volunteer Pizza Party

The section is sponsoring a pizza party for all of those who have volunteered their time and skills to section activities this past year. Of course, any section members are also welcome. The party is currently scheduled for **December 7th**, beginning at ca. **5:30 PM**, at **Round Table Pizza**, located at 245 Torbett in **Richland**. The section will provide pizza and drinks. Hope to see you there!

Richland Section Elections

Members! It is that time of the year again to vote. A ballot is included in this mailing. Please fill in the ballot, fold it over, tape it shut, and place it in the plant mail. If you are not on the Hanford site, or do not have access to plant mail, you will need to add a postage stamp to the pre-addressed ballot. Ballots must be received by December 8th, 2001.

Handle the (Soviet-style?) ballot once! Mark your selections and mail!

Chair Elect

Janet Bryant

Janet is presently a Senior Research Engineer at the Pacific NW National Laboratory. Janet is serving her 3rd appointment to the National Women Chemists Committee, where she is involved with organizing programming of interest within technical divisions including Organic, Chemistry and the Law, Nuclear Chemistry & Technology, and Business Management. She is the Chair of the Communications Subcommittee, National Newsletter Editor, and Secretary of the Committee.

Janet has a particular affinity for expanding the "face of chemistry" to include both traditional and nontraditional paths, and to make sure that ACS as the largest technical society, does all that it can to prepare future chemists for what they will find in the workplace.

Secretary

Bruce McNamara

Bruce began his working life as a tree surgeon in Florida, but decided at age 27 that the tree surgeon's normal life expectancy was much shorter than that of chemist. And so he vigorously pursued undergraduate degree in organic chemistry and obtained his BS at the University of Massachusetts. As an undergraduate, Bruce supported himself painting houses for unsuspecting clients. He obtained his Ph.D. in 1998 in physical chemistry at Purdue University, and here the heavens visited upon he and his wife twin boys. Bruce worked for the last two years of his 6 year stay at Purdue drinking alot and playing guitar at nightclubs and sorority houses. This whorlwind tenure advanced him to the "big leagues" as a post doc at the University of California, Berkeley. Here he was constantly humiliated by elitist 18 year old snots for his rough and oldworld enthusiasms. Just before Bruce was arrested for postal behaviors, a post doctoral position opened up at PNNL. Bruce eventually parlayed this position to a level 3 Scientist hire in the Radiochemical Processing Laboratory. In his new job, it is certain his life expectancy is likely to be quite a bit less than that of a tree surgeon.

Treasurer

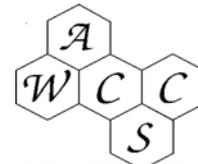
Ron Kelley

(Eastern Oregon University - NoBio Available)

Councilor

Richard Hermens

He served as councilor for the Richland Section to the National ACS for six years. He was appointed to the Local Section Activities Committee where he served on the Technology Subcommittee. He was also appointed to the Senior Chemists Task Force two years ago. He is Emeritus Professor of Chemistry of Eastern Oregon University after teaching there 35 years. His awards include the American Chemical Council (formally the Chemical Manufacturer's Association) Outstanding Teacher Award in 2000, the Eastern Oregon University's Distinguished Teaching Faculty Award in 1988 and eight times he was awarded the Meritorious Professor Award. He was presented the Outstanding Chemist Award from the Richland Section in 1986. He now consults with the University of Idaho and is Chairman of the Board of MicroLab Inc. He holds a patent on the Recovery of Uranium from Solutions, 17 publications and 49 presentations.



*Women Chemists Committee
of the
American Chemical Society
is pleased to*

**Call for Nominations
for
The WCC Regional Award for Contributions to Diversity**

Purpose: To recognize individuals who have significantly stimulated or fostered diversity in the chemical enterprises.

Nature: The award consists of \$250, a plaque, and up to \$750 for travel expenses to the ACS Regional Meeting at which the award will be presented. Eight regional awards will be given in 2002.

Establishment and Support: The ACS Women Chemists Committee

Rules of Eligibility: Nominees for the award may come from any professional setting: academia, industry, government, or other independent facility. The award is intended to recognize significant accomplishments by an individual. The award will be given without regard to the age, gender or nationality of the recipient.

Send nominations to:

Women Chemists Committee
American Chemical Society
1155 16th Street NW
Washington, DC 20036

For information regarding the award, contact Cheryl Brown, 800/227-5558 ext. 6123, or e-mail: wcc@acs.org

Deadline for receipt of nominations is February 1, 2002

