



Richland Section American Chemical Society

winter 2006

section social

wine & CHEESE

WHO: SECTION MEMBERS AND GUESTS
WHAT: VOLUNTEER RECOGNITION & MEMBER APPRECIATION
WHEN: FRIDAY, DECEMBER 8, 6:30 – 8:30 PM
WHERE: 2309 HARRIS AVE. RICHLAND WA
WHY: FOOD, FRIENDS (OLD AND NEW), FESTIVITIES

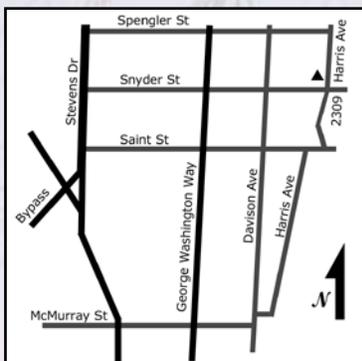
One Woman Show
Madame Curie
 to be Held at CBC

WHO: The General Public
WHAT: Historical Drama on the life of Madame Curie
WHEN: December 7 at 7:00 PM
WHERE: CBC Performing Arts Building, Pasco Campus

Carole Berg will be presenting a one woman show on the life of Madame Curie at 7:00 PM on December 7 at the Columbia Basin College Performing Arts Building in Pasco. Carole is currently the Chair of the Puget Sound ACS Section and a chemistry instructor at Bellevue Community College. She created the show to improve understanding of the history of chemistry. Please join her and be prepared to learn while you are entertained. The public is invited and admission is free.

All members and their guests are invited to a social to be held on Friday evening, December 8, 2006, from 6:30 to 8:30 PM. The location will be the residence of the current Section Chair, Bill Samuels, 2309 Harris Ave, Richland. This location is shown on the adjoining map, and can be found at: <http://pnl.gov/acs/calendar.html>. Hors d'oeuvres and wine/soda will be served.

As Bill said, "The Section board wanted to offer members and their guests a time to get together at the start of the holiday season. After looking at a variety of factors such as parking, price, surroundings, etc, it



just made sense to have this at a residence. I hope all section members will be able to attend."

So come, review old acquaintances, and make new ones. Be sure to bring a guest and your appetite.

Section to Close Year With Volunteer Recognition Get-Together All Members & Their Guests Invited

Carole Berg as Madame Curie



inside

SECTION BALLOT & CANDIDATE BIOS

ENVIRONMENTAL MYSTERY SOLVED BY GIRLS IN SCIENCE

By Laura Hancock and Anna Cavinato

LA GRANDE, Oregon – Girls in grades six through eight were invited to investigate an environmental mystery on Saturday, October 28 at the Eastern Oregon University Science Center. Over 100 of them from schools in Baker, Gilliam, Grant, Harney, Hood River, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco and Wheeler counties participated.

Participants in the award-winning Girls in Science program gathered evidence to solve a hypothetical, yet very realistic environmental dilemma of fish in a nearby stream that were mysteriously turning up dead from an unknown cause.

Students researched what could be killing off the fish and also sought a solution to the problem. Their investigation included chemistry, biology, anthropology/archeology and computer technology activities.

This is the second year for Emma Stockhoff, a seventh-grader from Union, to participate in the program. "I'm really glad they came up with Girls in Science because there's a lot of computer stuff," she said while graphing data from various water samples. "I just love coming up to Eastern."

Girls analyzed water samples from four simulated sites for presence of nitrates and phosphates, diesel, acid streams, and heavy metals, specifically lead. Aquatic invertebrates and daphnia, or water fleas, also helped



Analyzing samples for nitrate at Eastern Oregon University's Girls in Science Day

the students determine water quality. In addition, they observed the effects of toxins on mouse stem cells close-up under the microscope and examined the inner structure of dissected fish.

Practices common in the early timber, railroad and mining industries were examined to see if they could be contributing to the stream pollution.

The anthropology component of the mystery found students sifting through dirt in a simulated archeology dig, looking for remnants of Chinese pottery and pioneer artifacts.

At another station, volunteers from the Confederated Tribes of the Umatilla Indian Reservation talked about the natural food sources and medicinal herbs used by American Indians inhabiting the region. Keynote speaker Kat Brigham, CTUIR board member, gave a presentation on the tribes' fishing practices.

Parents, teachers and others who had accompanied the girls were invited to participate in special workshop geared at understanding the importance of preparing younger students for college and the role families play. Saving for college, scholarships and financial aid options, the importance of living on campus and career choices were also covered.

Girls in Science received national recognition in 2005 when the program received a ChemLuminary Award for outstanding advocacy on behalf of women in the chemical sciences by the Women Chemists Committee of the American Chemical Society, (ACS).

The event was sponsored by ACS Richland Section, The Northeast Oregon Area Health Education Center, EOU, Impact 100, and Soroptimist International of La Grande.

NATIONAL CHEMISTRY WEEK HIGHLIGHTS nanotechnology workshop



Participants at a nanotechnology workshop organized by the Eastern Oregon University student ACS affiliate chapter synthesize ferrofluids.

"Can something so small make a difference?" was the theme of a nanotechnology workshop organized by the EOU Student Affiliates for the Undergraduate Program at the 232nd National Meeting in San Francisco. The workshop was designed to introduce undergraduates and other interested individuals to new advances in nanotechnology and was lead by Ms. Sharyl Majorski of Central Michigan University. Participants had the opportunity to make gold nanoparticles and ferrofluids, and examine properties of memory metals and LEDs.

To enhance the material that was covered in the workshop, each Student Affiliate chapter in attendance received one "Exploring the Nanoworld" kit which contains a piece of memory metal, an excellent color manual with nanotechnology information, a light emitting diode and circuit, a diffraction slide and a fiber optic. The event was partially sponsored by the ACS through an Innovative Activities Grant (IAG) awarded to the EOU Students Affiliates and by the Oregon Nanoscience and Microtechnologies Institute (ONAMI).

chemistry merit badge



Local Section Member Royace Aikin discusses separation methods with scouts at the Chemistry Merit Badge training organized by the section.

RICHLAND SECTION ELECTIONS | candidate biographies

Enclosed is the ballot for the election of Richland Section officers for 2007. We will be electing a Chair-Elect, Secretary, Treasurer, and Alternate Councilor. The secretary and treasurer positions are self-explanatory, but I would like to take a minute to explain the other two.

The position of Chair-Elect is really a three year position. The first year is a learning year that allows some time to see the workings of the ACS and the local section. The second year is spent as the Chair of the Section. In the third and final position, that of Past-Chair, the office holder takes on an advisory role.

JANET L. BRYANT | alt. councilor



In today's chemical enterprise, it takes more than just being a technically trained person to succeed. Chemists must understand business processes and be able to create value to their organizations. I (Janet Bryant) have over 26 years experience in managing, performing, marketing and presenting contract research and development for a variety of complex technical systems at Pacific Northwest National Laboratory (PNNL).

My research has encompassed a broad variety of technical and socio-political contracts, including concentration on environmental and waste management policy and issue analysis, environmental assessments and analyses, and waste site remediation and environmental restoration. As a chemist with an M.B.A., I have turned my recent career focus to optimization and deployment of homeland security systems, most notably with work to interdict the illicit import of nuclear and radiological materials and devices that may be used by terrorists as weapons of mass destruction or for dispersal of radioactive materials.

I feel strongly that participation in the ACS Richland Section has given me an edge to succeed in my chemistry career. As a Past Chair of this Section, the events, networking, technical programming, regional meeting planning and participation, and leadership development opportunities have helped keep me up-to-date and in-touch with the broader aspects of the chemical enterprise and the constituency that IS our membership base. It's time for me to further give back to the Section and continue the momentum of recent years' efforts to expand and focus member services for our Section, communications, chemistry outreach and programming. An Alternate Councilor has an opportunity to serve the Local Section as a voice within national ACS venues. I look forward to serving Richland Section members in this important capacity. Thanks, in advance, for your vote of confidence in me.

ANNA CAVINATO | alt. councilor



Anna Cavinato is a Professor of Chemistry at Eastern Oregon University, La Grande, OR where she has been teaching chemistry and science courses for non-science majors since 1992. She received a Ph.D. in Analytical Chemistry from the University of Bari, Italy in 1981. Prior to joining Eastern Oregon University in 1992, she was a research professor at the Center for Process Analytical Chemistry at the University of Washington (1988-1992) and an Assistant Professor in the Department of Chemistry at the University of Memphis (1986-1988). She also received postdoctoral training at Oak Ridge National Laboratories (1983-1984) and the University of Tennessee Medical School in Memphis (1984-1986) working in the area of protein purification and electrochemistry. Her current research interests include the development of non-invasive methods of analysis, chemical sensors, optical spectroscopy and multicomponent analysis.

Anna has been an active member of the American Chemical Society since 1986. She served as Chair of the Richland Section in 1999 and has been Chair of the Women and Minority Affairs Committee since 2000. Anna has been instrumental in the development and implementation of "Girls in Science", an outreach program for young women in grades 6-8th. This program has been awarded a ChemLuminary award for the past three years. Anna is the advisor for the EOU Students Affiliate Chapter (Chem Club) and is currently a member of the ACS Taskforce for Undergraduate Programming at National Meetings.

The Councilor position is the liaison between the local section and the national ACS. The Councilor has the ability to influence ACS policy. Richard Hermens is our present Councilor. The Alternate Councilor performs the duties of the Councilor in the Councilor's absence or incapacity to serve. The Councilor and Alternate are elected for three year terms.

I hope these explanations have helped you understand the positions a little better. – **Bill Samuels**, Section Chair

P.S. I would encourage you to consider running for a position yourself next year. The only prerequisite is a desire to get involved!

NOVELLA N. BRIDGES | chair elect



Novella N. Bridges is a research chemist at Pacific Northwest National Laboratory (PNNL). Dr. Bridges received her B.S. in Chemistry from Jackson State University and her Ph.D. in Chemistry from Louisiana State University. Since graduation she has been employed at PNNL. Her research interest center on the development of new catalysts for the treatment of diesel emissions, the creation of high value bio-based products, the development of radio-labeled composites as therapeutic agents for cancer treatments, the production of hydrogen for fuel cells and

other advanced energy systems, organic signatures of biological agents and she also is Lead Training Coordinator for the Radiation Portal Monitoring project (RPMP). Dr. Bridges' awards include a National Consortium for Graduate Degrees for Minorities in Engineering and Sciences (GEM) fellowship, a Rising Star Award from CCG Inc. (Black Engineer Magazine), the Young Observer Award and travel award from IUPAC (International Union of Pure and Applied Chemistry), the Community Spirit award from Battelle, Graduate of PNNL's Scientist and Engineer Development Program (inaugural year), and PNNL's Woman of Achievement. She was also nominated for an R&D 100 Award, and the TR100 Young Innovator Award.

BRUCE McNAMARA | secretary



Bruce McNamara obtained his Ph.D. in Physical Chemistry at Purdue University. The research at Purdue involved development of laser-based infrared instrumentation, toward kinetic studies of transient organometallic intermediates. A 1.5 year post-doc at Berkeley followed, where Bruce did similar work with more expensive laser setups and even shorter lived transients. Another post-doctoral position at PNNL in the Radiochemical Processing Group was followed by a year at DOE Headquarters in Gaithersburg, Maryland. Sick of the bureaucratic life, Bruce returned to PNNL and started his career as a chemist, where he works in a goofy-colored lab coat and rubber gloves and is often seen sporting a pocket protector.

DENNIS WESTER | treasurer



Dennis Wester is currently a staff scientist at Pacific Northwest National Laboratory in the Radiochemical Processing Group. Dennis received his Ph.D. in Inorganic Chemistry from the University of Florida and spent two years as a post-doc at The Ohio State University. He has served at various times and in various capacities on the boards of the Chicago, St. Louis and Richland Sections of the ACS and has most recently been the ACS representative to the Tri-Cities Technical Council for several years. His work at PNNL has taken him to many countries around the world (Russia, Philippines, Australia, etc.) so he is looking forward to a few years at home and some time to devote to the Richland Section.

HAIL AND FAREWELL

The Richland Section would like to welcome the following new members: **Petia Bobadova-Parvanova, Zdenek Dohnalek, Zhenrong Zhang, Aaron Allen, Brian Clowers, Anna Gutowska, Lorna Rodriguez, and Zheming Wang.**

We wish departing members **Brienne Bottenus, Rene Corrales, David Clark, Latifa Douali, Kathleen Mellinger, Richard Mounts, and Theodore Richerzhagen** the best of luck in their future endeavors.

STUDENT GRANTS TRAVEL AVAILABLE

The Richland Section is making some money available to help students at 2 and 4 year colleges with the expenses of attending a ACS sponsored meeting. The grant money is intended to help students in southeastern Washington and northeastern Oregon who are intending to present a poster or talk at the meeting. Applications must be submitted by January 10, 2007. For more information, contact the Section's current Chair-Elect, Jeff Woodford, at 541-962-3321 or at jeff.woodford@eou.edu.

COMING EVENTS

- DECEMBER 7 **ONE WOMAN SHOW:** Carole Berg Presents Madame Curie, Columbia Basin College Auditorium, 7 PM
- DECEMBER 8 **WINE AND CHEESE SOCIAL**
- FEBRUARY 22 **TOUR SPEAKER: Alexander M. Shedrinsky,** Topic: Application of Pyrolysis Gas Chromatography to the Materials of Art and Archaeology
- APRIL 3 **TOUR SPEAKER: Steven Dutch,** Topic: The Violent Birth of Planet Earth
- MAY 15 **TOUR SPEAKER: Robert Bates,** Topic: Pitfalls and Pleasures of Southeast Winemaking
- OCTOBER 22 **TOUR SPEAKER: William Carroll,** Topic: From Garbage to Stuff: How We Recycle Plastics

Richland Section
Home Page

www.pnl.gov/acs/



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Point to Ponder

A positive attitude may not solve all your problems, but it will annoy enough people to make it worth the effort.
- Herm Albright