



Richland Section American Chemical Society

spring 2007

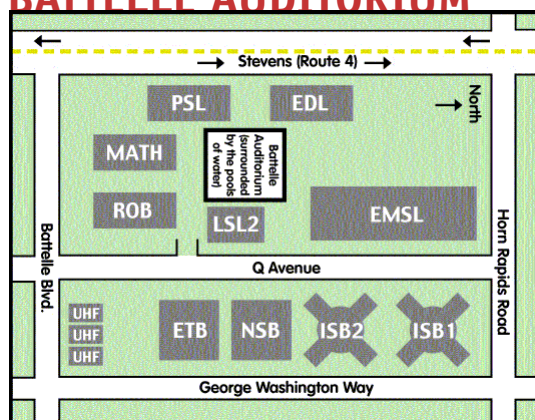
featured talk

WHO:
**DR. ALEXANDER
SHEDRINSKY**



WHAT:
**APPLICATION OF PYROLYSIS
GAS CHROMATOGRAPHY
TO THE MATERIALS
OF ART AND ARCHAEOLOGY**

WHEN:
**THURSDAY, FEBRUARY 22
7:00 PM**
WHERE:
BATTELLE AUDITORIUM



About the Talk: Knowledge of the precise nature of materials used by artists in creating works of art is essential for the scientific conservation of cultural property. Attempts to answer materials questions are usually severely limited due to the compositional complexity of the many art media employed by artists and the extremely limited sample size of the specimens presented for examination. Above all, with ages ranging from millennia to less than a hundred years, organic materials of art and archaeology often change so dramatically with time that identification of their original composition becomes a significant research problem. What makes it doubly difficult is the fact that through polymerization, oxidation, and cross-linking, these materials become very difficult to handle by conventional analytical techniques. In this respect, pyrolysis gas chromatography (PyGC) has become a very powerful instrument for the characterization of non-volatile and non-soluble materials. It does not require any pre-treatment of the sample before examination and can be done on very small samples. Advances in pyrolysis instrumentation and development of thin-coated capillary columns have made PyGC reliable and reproducible. Examples of the examination of museum objects from the Metropolitan Museum of Art and American Museum of Natural History will be given together with analyses of artifacts from private collections. The presentation will be of interest to both scientific and archaeological/art historical audiences.

About the Speaker: Alexander M. Shedrinsky graduated from the Chemistry Department of Leningrad State University in 1965. He continued his studies there and completed his postgraduate study in polymer chemistry in 1970. He was a lecturer in organic and general chemistry

at Leningrad North-West Polytechnical Institute, First Leningrad Medical Institute, and Leningrad Pharmaceutical College. Dr. Shedrinsky continued his graduate studies at New York University, completing his M.S. in 1983 and his Ph.D. in 1986 in synthetic organic chemistry. He was Charles and Francis Atkins Fellow at the Paintings Conservation Department of the Metropolitan Museum of Art from 1984 to 1986, and a Postdoctoral Fellow at the Conservation Center of the Institute of Fine Arts of New York University from 1986 to 1988. He was Andrew Mellon Fellow at the Objects Conservation Department of the Metropolitan Museum of Art (1988-1990) while continuing as an assistant professor of chemistry at the Brooklyn Campus of Long Island University and a Kervorkian Fellow at the Conservation Center of the Institute of Fine Arts of New York University (1990-1992). Presently, Dr. Shedrinsky is a professor of chemistry at Long Island University and an adjunct professor of conservation at the Conservation Center of Institute of Fine Arts (NYU). Dr. Shedrinsky was a Fulbright Professor during the spring semester of 1995 at the Academy of Arts, St. Petersburg, Russia, teaching a course on Organic Chemistry of Museum Objects and a Forchheimer Visiting Professor at the Hebrew University of Jerusalem during spring semester of 1997. Professor Shedrinsky specializes in pyrolysis gas chromatography of organic materials of art and archaeology. His skills and knowledge have been sought in the analysis of a variety of subjects, such as materials from the Sistine Chapel, Egyptian oil of archaeological interest, and Italic amber carvings from the J. Paul Getty Museum, to name but a few. During the last ten years, his research interests have been heavily concentrated on the analysis of different ambers and amber look-alike materials.

SECTION BUDGET
inside

RICHLAND SECTION | 07 budget proposal

Richland Section American Chemical Society	2007 Budget Proposed	2006 Budget	2006 Actual Total
INCOME			
Annual ACS Allotment	\$6,600.00	\$6,400.00	\$6,578.00
New Member/Affiliates Commissions	\$0.00	\$0.00	\$0.00
Interest: Checking	\$0.00	\$0.00	\$10.68
Savings	\$200.00	\$100.00	\$226.38
ACS Investment Pool	\$2,000.00	\$2,000.00	\$1,633.75
Newsletter (advertising)	\$0.00	\$0.00	\$0.00
Misc. (refunds, events, e.g., NCW)	\$1,800.00	\$1,700.00	\$1,815.00
Northwest Regional Meeting	\$1,000.00	\$0.00	\$4,000.00
Fund Raising / Donations	\$0.00	\$0.00	\$0.00
Voluntary Section Dues	\$1,800.00	\$1,800.00	\$1,792.62
TOTAL INCOME	\$13,400.00	\$12,000.00	\$16,056.43

EXPENSES			
Administrative	\$50.00	\$50.00	\$0.00
Local Meetings			
Speakers	\$1,500.00	\$1,200.00	\$900.00
Arrangements	\$500.00	\$500.00	\$391.43
Regional Meeting (NORM)	\$0.00	\$0.00	\$0.00
Awards	\$200.00	\$200.00	\$278.52
TCTC Dues	\$45.00	\$45.00	\$45.00
TCTC Teacher Grants	\$300.00	\$300.00	\$300.00
Newsletter	\$1,300.00	\$1,300.00	\$1,082.35
Education			
NCW, Family-a-Fair, K-12 outreach	\$1,000.00	\$1,000.00	\$894.04
Olympiad	\$100.00	\$50.00	\$25.00
Science Fair	\$250.00	\$200.00	\$250.00
Highschool Teacher Endowment Fund	\$500.00	\$500.00	\$0.00
Travel			
Councilors	\$4,000.00	\$3,500.00	\$3,291.49
Section Officers	\$750.00	\$750.00	\$557.80
Student Affilitate Travel	\$2,000.00	\$1,600.00	\$1,600.00
Other			
ACS Picnic	\$200.00	\$200.00	\$135.50
ACS Annual meeting pizza social	\$350.00	\$300.00	\$352.00
Post-NORM Celebration	\$300.00	\$0.00	\$0.00
50-Year Celebration/National Award	\$300.00	\$350.00	\$270.83
Mini-Symposium	\$0.00	\$0.00	\$0.00
Public Relations	\$150.00	\$150.00	\$0.00
Women and Minority Affairs Cmte	\$500.00	\$500.00	\$500.00
Project SEED	\$100.00	\$0.00	\$100.00
TOTAL EXPENSES	\$14,395.00	\$12,695.00	\$10,973.96

NET GAIN (LOSS)	(\$995.00)	(\$695.00)	\$5,082.47
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07 OFFICERS

Listed below are the newly elected section officers. As their job is to make the section's activities of more value to you please contact them with your ideas!

CHAIR

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**07 BUDGET
VOTE
APRIL 3
AT SPEAKER
MEETING**

Chemistry Olympiad

Each year the Richland Section takes part in the search for talented high school chemistry students to be members of the national Chemistry Olympiad team. The section will be giving a qualifying test for the team on April 28. Volunteers are needed to proctor the test. Students who score well nationally have the possibility of joining the national team, which will compete in the world competition in Moscow, Russia, next July. If you would like to volunteer to help with the test, please contact Royace Aikin at 509-375-6929, or email at royace.aikin@pnl.gov.

Scout Merit Badges

A very popular outreach program sponsored by the Richland Section are the programs for boy and girl scouts to earn the chemistry and nuclear science merit badges. The chemistry program just completed a few months ago, but the nuclear science program will be held on April 21 and 28. If you would like to help with the upcoming training, please contact Sandy Fiskum at 509-376-7015, or email at sandy.fiskum@pnl.gov.

Mid-Columbia Science Fair and DOE Science Bowl

The Richland Section traditionally sponsors two awards for the best chemistry related projects at the Mid-Columbia Science Fair, and this year will be no exception. This year judging for the awards will be on March 8. Volunteers are needed to judge the projects. Also, scientists from throughout the local community are invited to judge the DOE Science Bowl, to be held on February 24. If you would like to help with either event, please contact Bruce McNamara at 509-376-1408, or email at Bruce.McNamara@pnl.gov.

Tri-Cities Technical Council

The Tri-Cities Technical Council (TCTC) is a non-profit coordination and communication vehicle for the local chapters of professional and technical societies in the Tri-Cities area. The ACS is looking for a volunteer to be our representative at the TCTC. If interested, or would like more information, please contact Dennis Wester at (509) 376-7195, or email dennis.wester@pnl.gov.



NEW CHAIR Jeff Woodford

Welcome to another year! Let me be the first to thank all of our hard-working volunteers from last year, and especially Bill Samuels, who, as last year's chair, did an outstanding job in leading the section. I can only hope to fill his large shoes. Thank you Bill!

As you may know, the Richland Section will be hosting the Northwest Regional Meeting (NORM) at the Boise Centre on the Grove Convention Center in Boise, Idaho on June 17-20 of this year. The meeting will be co-located with the Pacific Division of the American Association for the Advancement of Science. The meeting is being organized by the capable efforts of three Richland Section veterans: General Chair Timothy L. Hubler, Program Chair Samuel A. Bryan, and Expositions Chair Karen E. Grant. Hosting NORM is a major event for our section and I hope that we can count on you to register and present your original research at the meeting, but also encourage your friends, co-workers, colleagues, students, professors, associates, partners, pals, and even casual acquaintances to attend the meeting as well. A wide array of interesting technical sessions is available in which to present original research, as well as traditional general sessions in inorganic, organic, physical and analytical chemistry. There will also be opportunities for undergraduates to present their research and to explore the world of chemistry through a vibrant undergraduate

program being organized by Richard Hermens and Anna Cavinato. Furthermore, proceeds from hosting a successful regional meeting go a long way towards maintaining the financial health of the section; the last regional meeting that we hosted was in 1998, also chaired by Tim Hubler, and we continue to enjoy the fruits of his labor from that meeting even to this day. More information on NORM may be found at www.northwestchemistry.org. Abstracts are currently being accepted and the deadline for submission is May 7. I hope to see you all there!

At NORM, the section will also unveil two new initiatives. The first is an opportunity for financial assistance for community college chemistry students to attend NORM. Under the leadership of Richard Hermens and Glenn Crosby, the section has received an ACS Local Section Innovative Grant award to fund this financial assistance. These monies, along with other funds raised by Drs. Hermens and Crosby, will go towards providing travel assistance to community college students who are considering pursuing a career in chemistry to explore a professional chemistry conference as well as network with four-year universities offering bachelor's degrees in chemistry. The second initiative is a Science Café to be held at NORM, funded through an ACS Local Section Minigrant. A Science Café is an opportunity for scientific scholars to mingle with the general public to discuss important scientific issues that have direct social, political and economic impacts. We hope that you will be able to participate in the discussion at the Science Café!

We also have planned several events for this year, including four ACS tour speakers. The first, Dr. Alexander Shedrinsky, featured in a separate article, will be speaking on the application of chemical instrumentation methods to the art world. It should be a fun and interesting talk and we hope for a large turnout for this event. Other events include the annual picnic with the local chapter of the American Institute of Chemical Engineers; a tree-planting ceremony on Earth Day to celebrate Chemis-Tree; lots of fun and educational events for Richland Section kids during National Chemistry Week; an end-of-year holiday party and volunteer appreciation night; as well as many others.

Finally, under the direction of Richard Hermens and Lee Burger, we have undertaken a Richland Section Written History Project. Like many organizations, the Richland Section has a long history that has been passed down through the ages largely via oral tradition. With Richard's and Lee's help, we will begin to preserve our history in written form. If you have any historical data, stories or anecdotes that you would like to share, please contact either Richard or Lee.

Finally, let me conclude by stating that it is my privilege to serve as your chair for 2007. If there is anything that the Section can do for you, please do not hesitate to contact me at 541-962-3321 or jeff.woodford@eou.edu. May you have a prosperous and joyful 2007!

HAIL AND FAREWELL

The Richland Section would like to greet the following new members: **Brienne Bottenus, Heather Brown, Tyler Heibeck, Jonathan Male, Kenneth Norris, Jim Osterloh, Jubal Scharold, David Springer, Xuebin Wang, and Eric Wyse.** Welcome, and hope to see you at an upcoming event!

MEMBER BENEFIT

Looking for A Job Change?

Chemjobs.org is a comprehensive online recruitment and career site for the chemical community. Formerly known as JobSpectrum.org, Chemjobs.org now includes resources from Chemical & Engineering News Classifieds. Chemjobs.org can be found at: <http://pubs.acs.org/chemjobs>

COMING EVENTS

FEBRUARY 22	TOUR SPEAKER: Alexander M. Shedrinsky, Topic: Application of Pyrolysis Gas Chromatography to the Materials of Art and Archaeology
FEBRUARY 24	DOE SCIENCE BOWL
MARCH 8	MID-COLUMBIA SCIENCE FAIR JUDGING
MARCH 16	50-YEAR MEMBER CELEBRATION and Student Poster Presentations
MARCH 25-29	ACS SPRING NATIONAL MEETING
APRIL 3	TOUR SPEAKER to be announced
APRIL 21 & 28	NUCLEAR SCIENCE MERIT BADGE
APRIL 28	CHEMISTRY OLYMPIAD TEST for High School Students
MAY 15	TOUR SPEAKER: Robert Bates, Topic: Pitfalls and Pleasures of Southeast Winemaking
JUNE 1 OR 8	ANNUAL PICNIC (with AIChE) Date Still in Planning
JUNE 17-20	NORM '07
AUGUST 19-23	ACS FALL NATIONAL MEETING
OCTOBER 22	TOUR SPEAKER: William Carroll, Topic: From Garbage to Stuff: How We Recycle Plastics
NOVEMBER 3, 10	YOUTH CHEMISTRY MERIT BADGE PROGRAM
DECEMBER 7	MEMBER APPRECIATION

Richland Section
Home Page

www.pnl.gov/acs/



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American Chemical Society
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Point to Ponder

Striving for perfection is the greatest stopper there is... It's your excuse to yourself for not doing anything. Instead, strive for excellence, doing your best.
– Sir Laurence Olivier