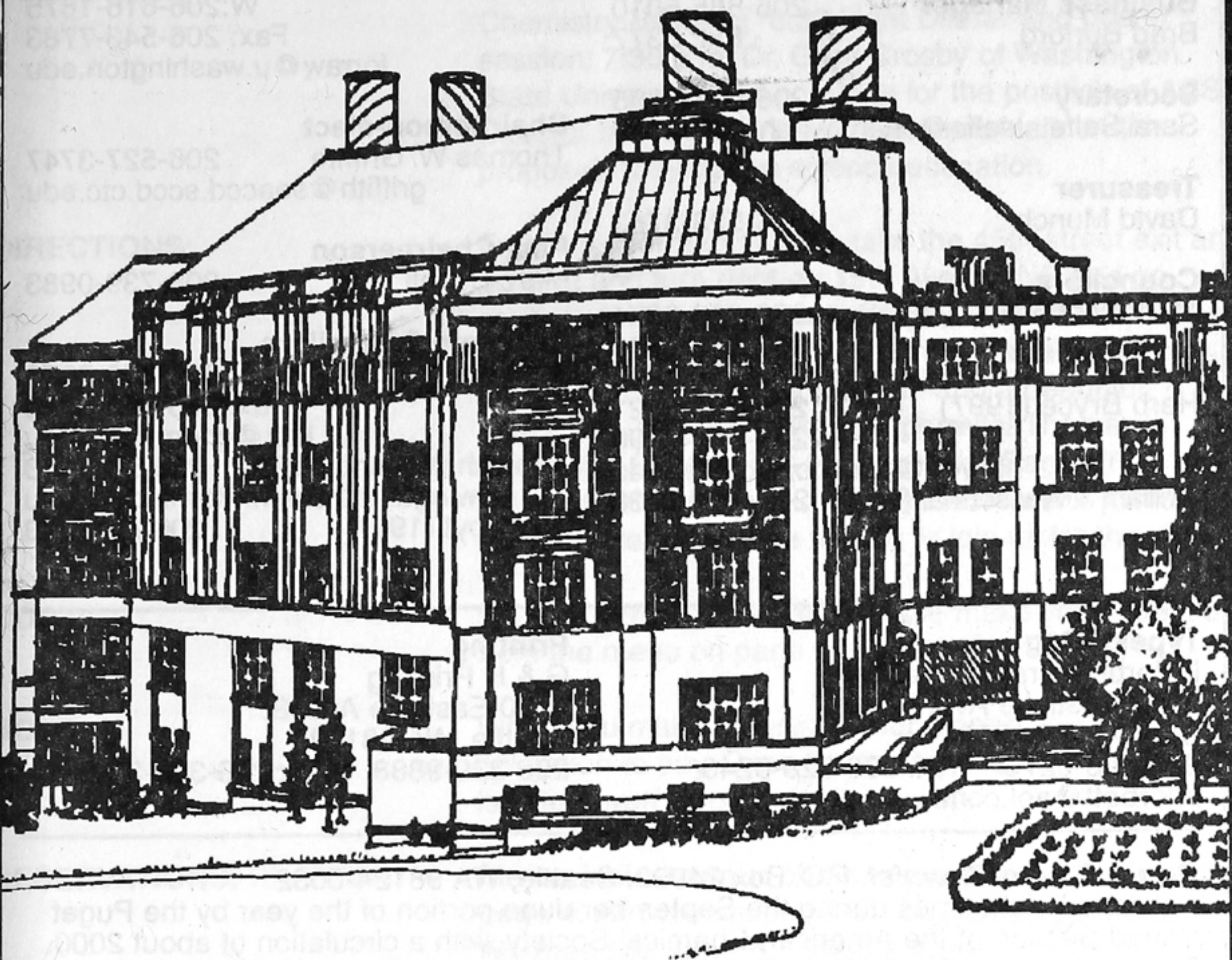


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PUGET SOUND CHEMIST

BULLETIN OF THE PUGET SOUND SECTION OF THE AMERICAN CHEMICAL SOCIETY

Volume 57, Number 4



MAY 1996

PUGET SOUND CHEMIST



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PUGET SOUND SECTION
AMERICAN CHEMICAL SOCIETY**

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Puget Sound Section, ACS, Executive Committee Future Meetings in 1996

Meetings are open to all members and are held on the second Wednesday of each month except there will be no meetings in July and August.

April 10, May 8, June 12

Place: North Seattle Community College

Meeting: 6:30 PM in 2430C

Room 2430C is on the second floor above the book store.

On the cover: The new Chemistry Building next to Bagley Hall at the University of Washington

June Meeting

- DATE:** Monday, June 10, 1996
- PROGRAM:** Tour of the new Chemistry Building,
University of Washington, Seattle.
- SCHEDULE:** 6:00 p.m. Social gathering and tour of the new Chemistry Building; 6:30 Light Dinner and poster session; 7:30 p.m. Dr. Gary Crosby of Washington State University, and nominee for the position of ACS Director for Region VI, will give a brief talk on the proposals to enhance science education.
- DIRECTIONS:** From I-5 (North or South), take the 45th street exit and go east and turn right on 15th Avenue NE and go south to the underground garage on 42nd St. on your left (parking fee: \$2.50). From the garage go east towards the Drumheller fountain and a beautiful view of Mt. Rainier, if weather permits! The new Chemistry Building is adjacent to the Bagley Hall to the south of the fountain. Please feel free to join us for the tour even if you are unable to join us for the dinner.
- COST:** \$12 per person for dinner; please make your selection from the menu on page 4.
- NOTE:** When you make reservation for dinner, you have an obligation to pay. Once the food is ordered, the section is billed even if you do not show up.
- RESERVATIONS:** Please indicate **your choice from the menu on page 4**. All reservations must be made by **NOON, Wednesday, June 5, 1996**. Please call: Seattle: Lynne Ross at 543-9509; Bellingham: 650-3070; Tacoma: 535-7530.
- OFFER TO STUDENTS:** The section will pay half the cost of dinner for the first ten students (graduate, undergraduate, or high school) who call 543-9509.

FUTURE MEETINGS, 1996

- Thursday, September 26:
WWU, Bellingham
- Dr. Joe A. Vinson: "A Scientific Look at Marijuana"
- Thursday, October 17:
- Dr. Clifford L. Schrader: "Toxic Chemicals In The Environment"

THE MENU

The following is the menu for the light dinner after the tour of the new Chemistry Building, University of Washington, on June 10, 1996

1. Seafare Salad Express: Ocean-fresh Shrimp Louis with tomato, hard boiled egg, and a lemon wedge on a bed of crisp greens, and Thousand Island dressing. Served with herb roll, seasonal fruit, and a maple-walnut icebox cookie.
2. All-Pro Express: A traditional, oven-roasted turkey sandwich on sourdough, with cranberry sauce, seasonal fresh fruit, potato chips, and a Chocolate Chip Chewy Nordby Bar.

For those who prefer vegetarian food:

3. Garden Salad Express: An array of crisp garden vegetables atop Northwest greens, accompanied by Gouda cheese, spiced nuts, and sweet basil dressing. Served with a freshly baked parmesan herb roll and butter, seasonal fresh fruit, and a Triple Chocolate Chewy Nordby Bar.

CALL FOR NOMINATIONS FOR 1996 SECTION OFFICERS

Suggestions for nominations for 1997 officers of the Puget Sound Section of the American Chemical Society should be made to Dr. Arden Forrey, Chair, Puget Sound Section, P.O. Box 24032, Seattle, WA 98124-0032. We need your help and participation at all levels as officers of the section or members of various committees.

REPORT FROM THE NEW ORLEANS COUNCIL MEETING:

The Region VI councilors selected Glenn Crosby and Stephen Rodemeyer as the two nominees for the position of Director for Region VI. Two Directors-at large remain to be selected from the following four nominees: Michael P. Doyle, Attila E. Pavlath, Lura J. Powell and Edwin P. Przybylowicz.

Edward Arnett, Daryle Busch, Paul H. L. Walters and Richard Zare were introduced as candidates for the position of President-elect. The Council selected Busch (University of Kansas) and Walters (Skidmore College) as the two finalists for election by the membership.

ACS president Breslow stated that the Board of Directors will be charged to study the relationship of U.S. immigration policy, the number of foreign chemists, and the available jobs in chemistry in the future.

The ACS will participate with the National Academy of Sciences in a reevaluation of graduate education in sciences and the ACS Committee for Professional Training will conduct the review of graduate programs in chemistry. Major changes are planned for ACS publications in the future in order to remain competitive with commercial publishers future with the creation of a new governing board to coordinate all ACS publications. This board will have final authority for policy concerning ACS journals and Chemical Abstracts.

The membership dues will remain unchanged at \$99 for 1997; however, the council voted to raise the student registration fee for the ACS National Meeting from \$15 to \$25 effective with the August meeting in Orlando.

REPORT FROM THE ACS PUGET SOUND SECTION STUDENT AFFILIATES UNDERGRADUATE RESEARCH SYMPOSIUM

The 1996 ACS Puget Sound Section Student Affiliates Undergraduate Research Symposium was held at Pacific Lutheran University on Saturday, April 27, 1996. The symposium was well attended. Our section chair and chair-elect were both in attendance. Twenty research papers were presented by students from various 4 year colleges in the Puget Sound area. Two awards were given: one for best presentation and the other for best research. The best research award went to senior Samantha Glazier of Western Washington University, Bellingham, with Dr. Mark Bussell, Department of Chemistry, as her faculty mentor. The award for best presentation went to senior Jill Hanck of University of Puget Sound, Tacoma, with Dr. Ann Wood as the faculty mentor.

The following are the abstracts of the award winning papers:

"Thiophene Hydrosulfurization Over Alumina-Supported Molybdenum carbide and Nitride Catalysts: Preparation, Catalytic Evaluation, and Nature of the Active Surface" by Samantha Glazier and Mark Bussell, Department of Chemistry, MS-910, Western Washington University, Bellingham, WA 98225.

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Early transition metal carbides and nitrides have shown promise as low cost alternatives to noble metal catalysts for a number of important catalytic processes. This research is directed toward determining the potential of alumina-supported Mo_2C and Mo_2N catalysts for use in the hydrosulfurization (HDS) process. Catalysts have been prepared by carburization (20% CH_4/H_2) and nitridation (NH_3) of $\text{MoO}_3/\text{Al}_2\text{O}_3$ at 950°K . Thiophene ($\text{C}_4\text{H}_4\text{S}$) HDS activities have been measured in an atmospheric pressure flow reactor equipped with a gas chromatograph for on-line analysis of products. The following trend of HDS activities was observed: sulfided $\text{Mo} < \text{Mo}_2\text{N} < \text{Mo}_2\text{C}$. Catalyst characterization is accomplished in ultrahigh vacuum using infrared (IR) spectroscopy. After treatment in a mixture of 5.0 Torr $\text{C}_4\text{H}_4\text{S}$ and 750 Torr H_2 at temperatures in the range $350\text{--}750^\circ\text{K}$, IR studies of carbon monoxide adsorbed on the catalysts were carried out. The results suggest "sulfide-like" sites form on the surface of the catalysts following $\text{C}_4\text{H}_4\text{S}/\text{H}_2$ treatments.

"Solid Phase Synthesis of A β -Alanine Surfactin Analogue" by Jill Hanck and Ann Wood, University of Puget Sound.

Surfactin, the strongest surfactant known, is a compound that has been isolated from cultures of *B. subtilis*. Surfactin is a cyclic compound that contains seven amino acids (asp:glu:L-leu:D-Leu:val in 1:1:2:2:1) and a long chain β -hydroxy fatty acid. The paper deals with the synthesis of a surfactin analogue using F-moc solid phase protein synthesis (SPPS) on a Wang resin. The surfactin analogue contains the seven amino acids and a D-amino acid in place of β -hydroxy fatty acid. This alteration simplifies the SPPS because it does not require an ester bond incorporation during the synthesis. Aspartic acid, with an alkyl blocking group at the α -carboxylic acid, was bonded to the resin via its side chain carboxylic acid. A straight chain peptide was synthesized by successive amino acids to the free amino group of the resin bound intermediates. Finally, the allyl and F-moc protecting groups were removed from the octapeptide, the peptide was cyclized and then hydrolyzed from the resin. Analysis of the products is being carried out.

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ACS Speaker Service, Local Section Newsletters, Local Section Home Pages



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LOCAL SECTIONS ON THE WORLD WIDE WEB

Fourteen local sections are now linked to the American Chemical Society's main site located at <http://www.acs.org>. They post information ranging from section officers and employment positions open in their communities, to the contents of their lending libraries, and section histories. As activity on the World Wide Web increases these chemical communities are offering an expanding variety of information in the area of chemical sciences.

Local sections provide the text of their newsletters as well. With universities and companies donating server space, many find this a cost effective way to reach section members. Meeting calendars only need to be published once, and members can check dates and locations at any time. By posting an active web site, sections not only inform their membership, but they provide resources for ACS members nationally as members from other sections visit their location.

To reach local sections through the main ACS web page press "ACS at a Glance" icon, then from the main "ACS at a Glance" page you can select local sections.

The office of Local Section Activities offers a web page template to interested sections. If you are willing to initiate a web page for the section, please contact a member of the Executive Committee.

Local Section Home Pages:

Cincinnati Local Section: <http://www.che.uc.edu/~nauss/acs/cinacs.html>

Idaho Local Section: <http://www.srv.net/~acsid/ACS-ID/acs-id.html>

Louisiana Local Section: <http://nola.srrc.usda.gov:8088>

Michigan State University Local Section: <http://slater.cem.msu.edu:80/~msuacs/>

Nashville Local Section: <http://www.tntech.edu/www/life/orgs/acs/index.html>

Northwest Oklahoma Local Section: <http://www.galstar.com/~dwhausl/neoacs.html>

Ole Miss Local Section: [http://sunset.backbone.olemiss.edu/orgs/acs local/](http://sunset.backbone.olemiss.edu/orgs/acs%20local/)

Red River Valley Local Section: <http://vax1.bemidji.msus.edu/~sorbent/redriver.html>

Savanna River Local Section: [http://www.csra.net/acs sr](http://www.csra.net/acs%20sr)

Sierra Nevada Local Section: <http://www.chem.unr.edu/acs/index.html>

South Central Missouri Local Section: <http://www.chem.umsr.edu/scms.acs.html>

Syracuse Local Section: [http://www-chem.esf.edu/info/acs index.html](http://www-chem.esf.edu/info/acs%20index.html)

Virginia Blue Ridge Local Section: <http://www.chem.vt.edu/VBRS-ACS/VBRS-home.html>

University of New Mexico Local Section: <http://www.arc.unm.edu/~aroberts/art.html>

LOCAL CAREER PROGRAMMING

The Career Services Department of the American Chemical Society is seeking a contact person from each local section to participate in Local Section Career Program workshops. This program is a national initiative to equip local sections with the materials and information needed to offer employment assistance to members in their geographic regions. Those volunteering will attend a weekend training session and then assist in establishing a program in their own local sections.

Workshops will be organized by region and held during July, September and November. Attendance at the program is sponsored by ACS, and there will be no charge to sections. However, registration is limited to one designee per section. Individuals interested in participating should contact our section chairman, Arden Forrey, at (206) 616-1875, Fax: (206) 543-7783, email: forraw@u.washington.edu.

Local Career Programming was established by the ACS Board of Directors and is under the auspices of the Committee of Economic and Professional Affairs. Tanya Fogg is coordinating the program and can be reached at (800) 227-5558 extension 6191 or by email at t_fogg@acs.org.

OBITUARY

George Otto Orth, Jr., Chemist, age 83, died peacefully in the presence of family and friends, on April 30, 1996, in Seattle. Otto was born July 1913 in Seattle. He was a self educated chemist who graduated from Lincoln High School, then later received an Honorary Degree from the University of Washington for his research and work in the field. Otto was accepted as a full member of the American Chemical Society in 1954 and served as chairman of the Puget Sound Section. He was also an editor and cofounder of the Puget Sound Chemist. Otto was honored as a 50 year member of the ACS in 1994. He worked for Food Chemical & Research Labs Inc., A.J. Norton Consulting Chemists, and worked for 14 years doing consulting work in the chemical field. Otto traveled on numerous occasions to Malaysia, China, and Japan to help companies producing synthetic rubber and processing palm oil. Otto worked at his laboratory in North Seattle for 23 years. He has many patents, both in the U.S. and abroad.

Otto is survived by two sons, William and Jack; daughter Penni; three grandchildren, April, Kevin, and Diana; one great granddaughter; brothers, William and Jack; and sisters, Dorothy and Margaret. Otto was predeceased by his wife, Alphonsine, on April 7, 1996.

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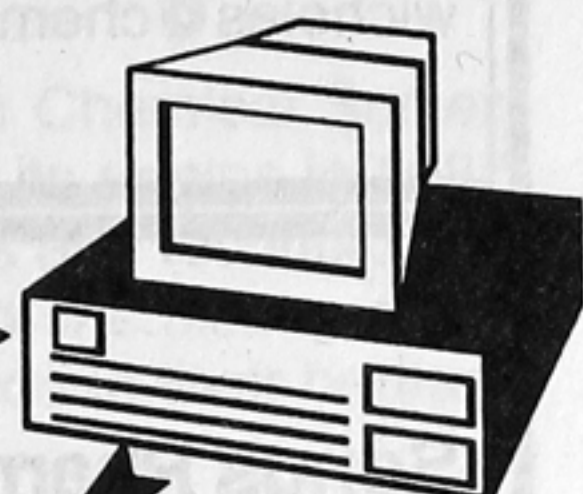
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Your ACS Dues at Work

ACS members paid nearly \$11 million in dues to the Society on 1995, amounting to just over 4 percent of the Society's total revenue. Society revenue sources include:

- Chemical Abstracts Services and the ACS Publications Division (75%)
- Member insurance program (5%)
- Contributions and grants (5%)
- Investment income (5%)
- **Member dues (4%)**
- Other (6%)

The revenue generated by these programs allows ACS to spend more on Society programs (\$15 million) than the total amount paid in member dues.

Dues partially support all of the activities listed below. The far right column indicates the percentage of dues funds used for each activity.

Activity	% of funds
Society Programs	46%
→ Government Relations and Science Policy	
→ Education	
→ Member and Professional Services	
→ Public Outreach	
→ Science & International Programs	
Allocation to <i>Chemical and Engineering News</i>	32%
Member services and records	12%
Local section and division allotments	10%

For detailed information on Society revenues and expenses, refer to the Annual Report mailed to members each spring.

THE CHEMICAL HERITAGE FOUNDATION MOVES TO PHILADELPHIA'S HISTORIC DISTRICT

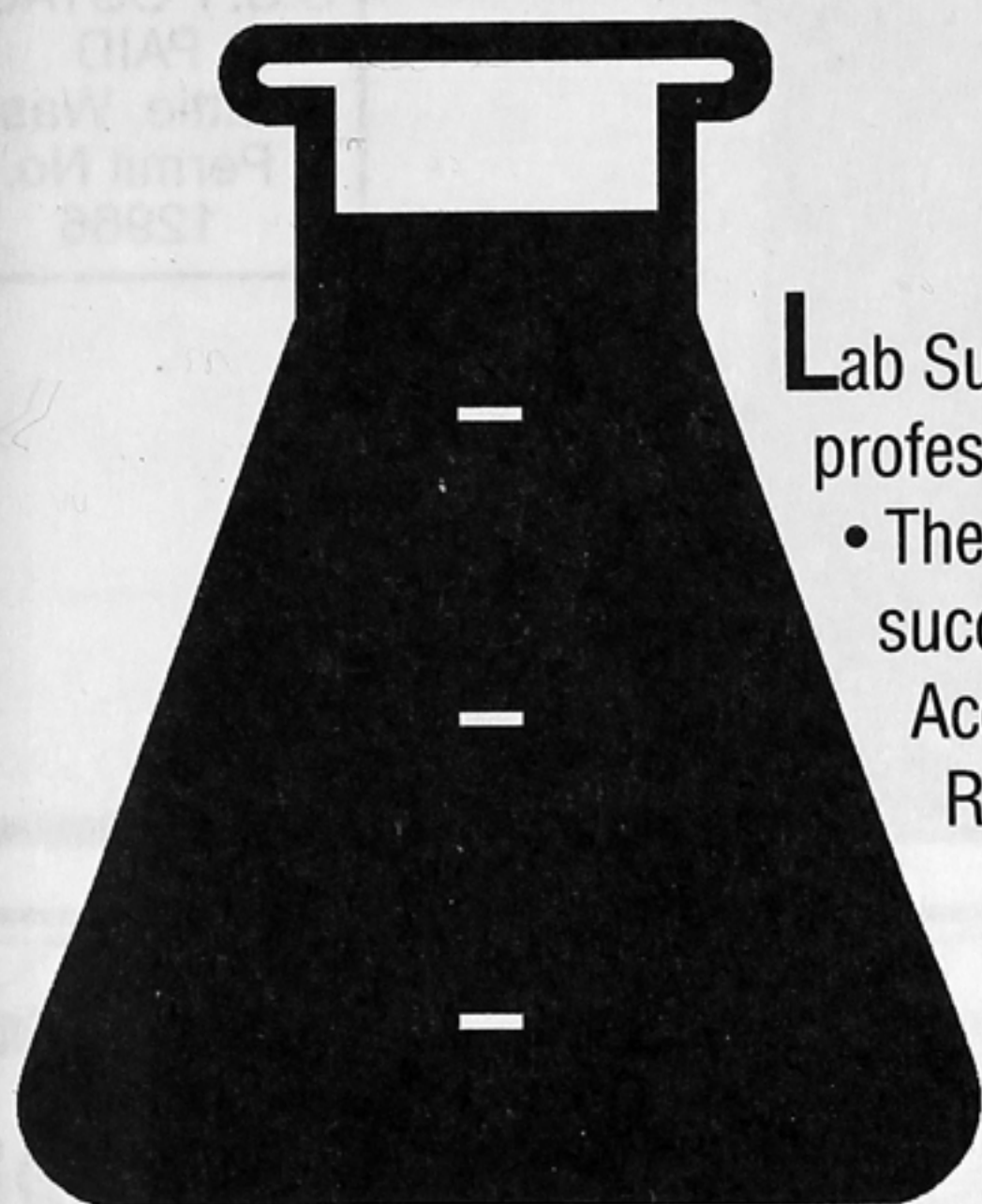
The Chemical Heritage Foundation (CHF) has moved into its own building, once home of the First National Bank, in Philadelphia's Historic District. The six-story building, which houses the Othmer Library of Chemical History and the Beckman Center for the History of Chemistry, is located near the Liberty Bell, Benjamin Franklin's house (now a federal museum), and Independence Hall.

As part of its relocation celebration, CHF will host a dinner on June 7th in conjunction with the 25th anniversary of the Department of History and Sociology of Science of the University of Pennsylvania. For more information contact Laurel Adelman at the Chemical Heritage Foundation, 315 Chestnut Street, Philadelphia, PA., 19106-2702. Tel: (215) 925-222 ext. 222, Fax: (215) 925-1954.

The Chemical Heritage Foundation, established by the American Chemical Society (ACS) and the American Institute of Chemical Engineers (AIChE), had its origins in 1982. CHF seeks to strengthen public understanding of the chemical sciences and technologies, increase the flow of the ablest students into the chemical sciences and chemical process industries, and instill in chemical scientists and engineers a greater pride in their heritage and their contributions to society.

Founding Members: American Chemical Society and American Institute of Chemical Engineers.

Affiliated Societies: Alpha Chi Sigma Fraternity, The American Association for Clinical Chemistry, Inc. American Association of Textile Chemists and Colorists, American Institute of Chemists, Inc., American Oil Chemists' Society, American Society for Mass Spectrometry, Chemical Manufacturers Association, The Chemists' Club, The Electrochemical Society, Inc., Federation of Societies for Coatings Technology, International Society for Pharmaceutical Engineering, The North American Catalysts Society, Society for Applied Spectroscopy, Société de Chimie Industrielle.



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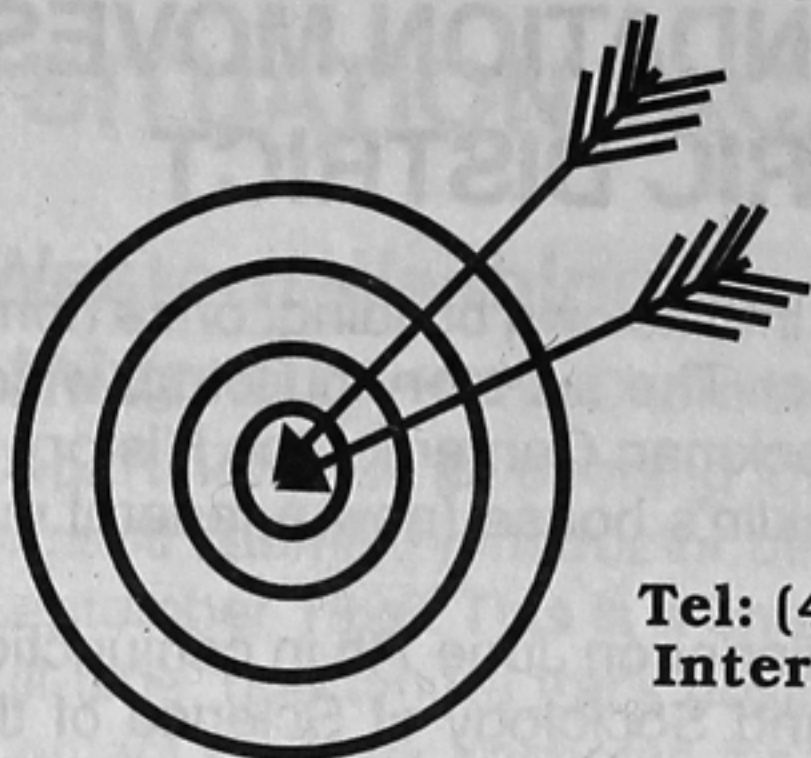
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