

PUGET SOUND CHEMIST

BULLETIN OF THE PUGET SOUND SECTION OF THE AMERICAN CHEMICAL SOCIETY

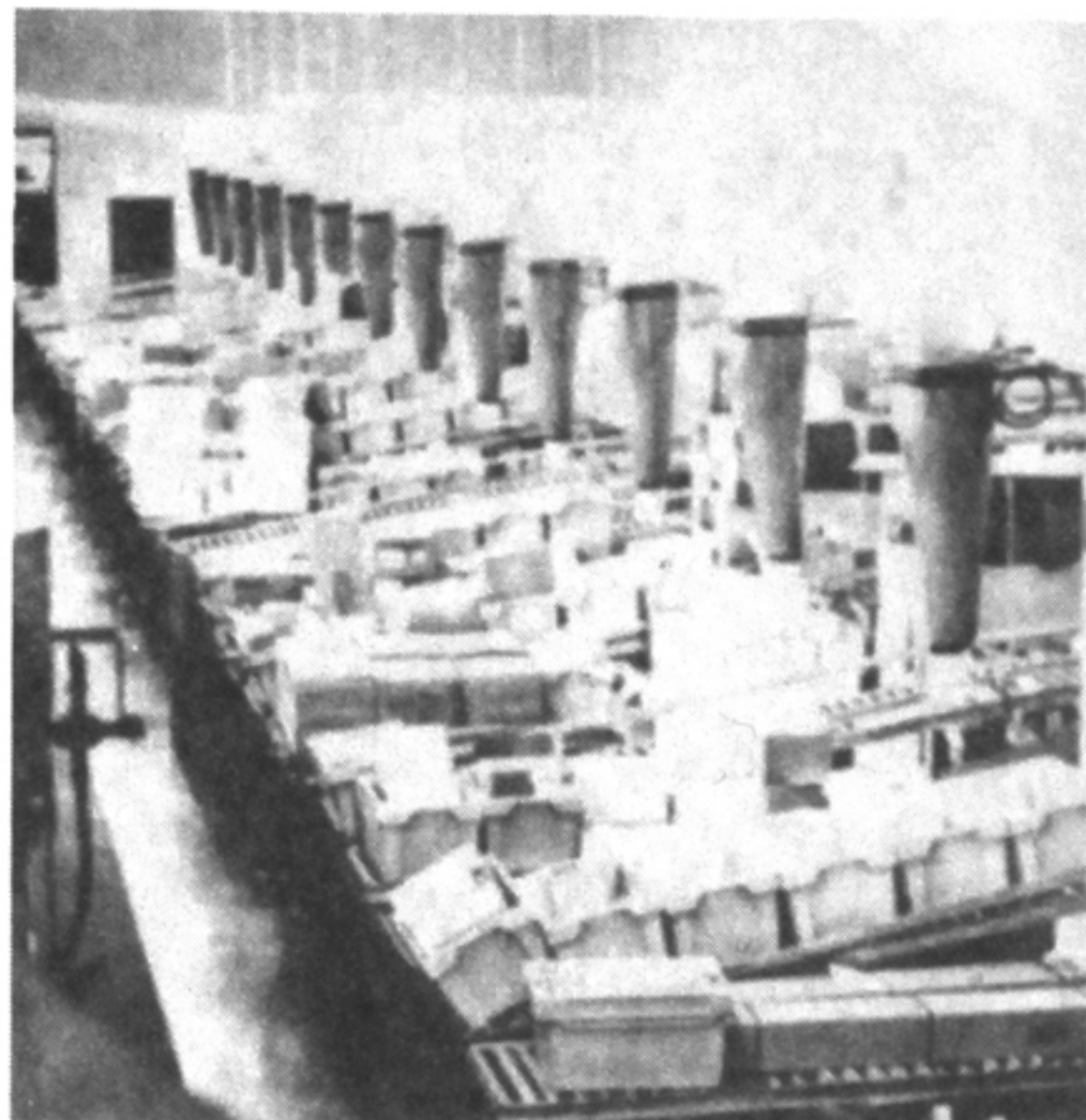
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On the cover: Dr. Ralph N. Blomster, Professor, Biomedical Chemistry, University of Maryland at Baltimore, will be the featured speaker at the November 1993 meeting of the Puget Sound Section of the American Chemical Society (see related articles in this issue).

NOVEMBER MEETING

(JOINT MEETING WITH IOTA SIGMA PI)

- DATE:** Tuesday, November 9, 1993
- FEATURED SPEAKER:** Dr. Ralph N. Blomster
Professor, Biomedical Chemistry
University of Maryland at Baltimore
- PROGRAM:** "Folk Medicine"
- LOCATION:** North Star Dining Room,
North Seattle Community College
9600 College Way N.
Seattle, WA
- DIRECTIONS:** Take Northgate exit from I-5 and go west on Northgate Way N.E. (which runs East/West north of the Northgate Mall) to Meridian N. Turn left going South on Meridian, which becomes College Way N., and continue to the college.
- SCHEDULE:** 6:00 pm - Social
6:30 pm - Dinner Buffet, North Star Dining Room
7:30 pm - Speaker and program
Please join us for the program even if you are unable to join us for the dinner.
- COST:** \$16 per person for dinner
- NOTE:** When you make reservations 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:** All reservations must be made by NOON, Friday, November 5. Please call: Seattle: 543-1610
Bellingham: 676-3070 Tacoma: 535-7530
- OFFER TO STUDENTS:** The section will pay half the cost of dinner for the first ten students (high school, undergraduate, or graduate) who call 543-1610.

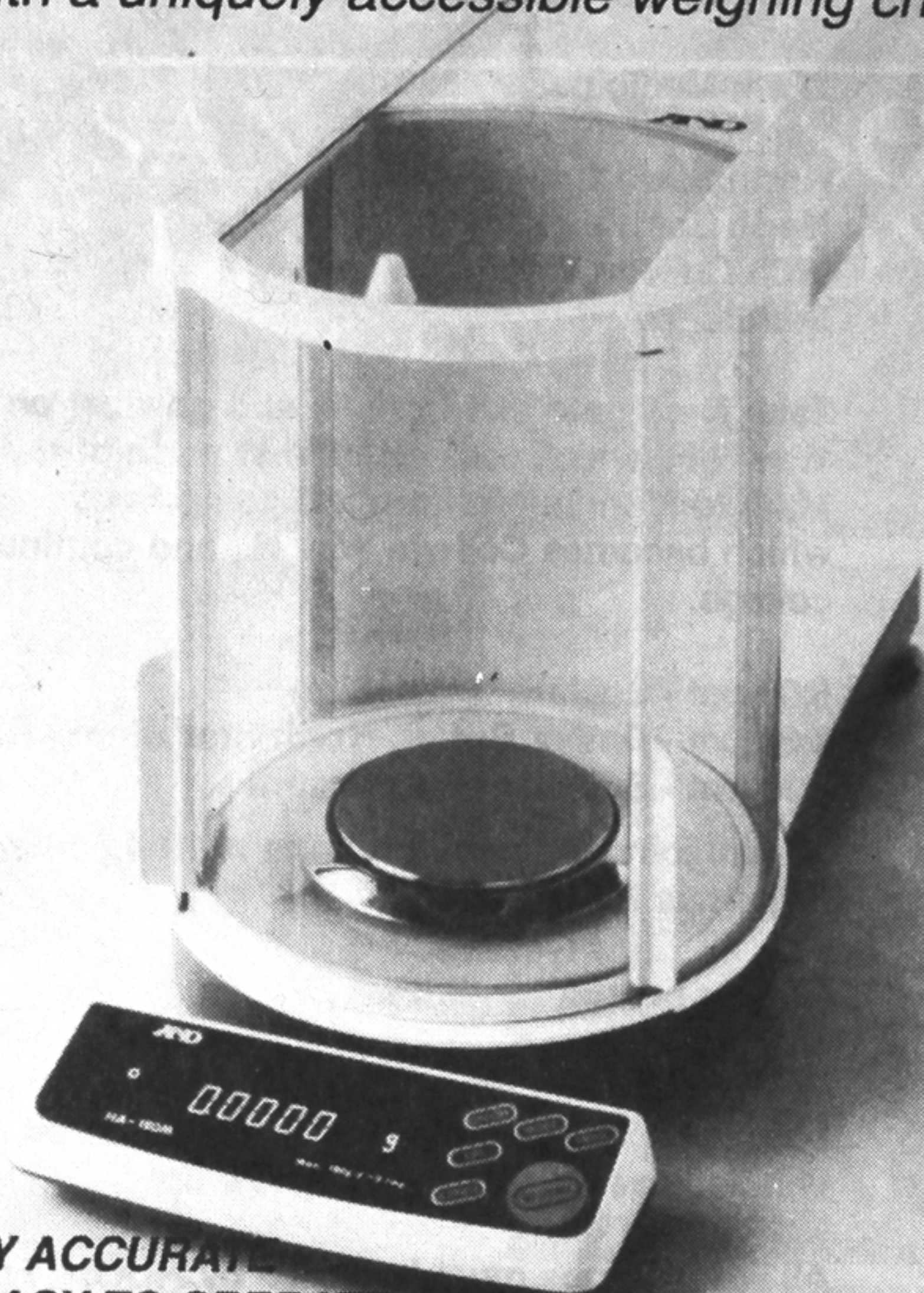
CHANGE OF ADDRESS?

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DR. RALPH N. BLOMSTER, SPEAKER FOR THE PUGET SOUND SECTION MEETING IN NOVEMBER

Dr. Blomster is Professor of Biomedical Chemistry at University of Maryland at Baltimore where he has been a member of the faculty since 1969. He obtained his B.S. from Massachusetts College of Pharmacy (1953), M.S. from University of Pittsburgh, and Ph.D. from University of Connecticut (1963). He was Assistant Professor (1963-66) and Associate Professor of Pharmacognosy (1966-69) at University of Pittsburgh; Professor and Chairman, Department of Pharmacognosy (1969-79), Professor and Chairman of Department of Medicinal Chemistry and Pharmacognosy (1979-89) and Professor, Biomedical Chemistry (1989-) at University of Maryland at Baltimore.

He has been active and willing to serve the scientific community as evidenced by his membership in numerous scientific societies: Charter member of the American Society of Pharmacognosy (Vice President 1971-72, and President 1972-73); the Association of Colleges of Pharmacy, Section of Teachers of Biological Sciences (Secretary-Treasurer 1966-75); the Academy of Pharmaceutical Sciences, Section on Pharmacognosy and Natural Products (Chairman 1973-74); the American Pharmaceutical Association; the American Chemical Society; the American Institute of Biological Sciences; the Phytochemical Society of North America; and the American Society of Microbiology.

ABSTRACT FOLK MEDICINE

Folk medicines have been demonstrated to exert a powerful governing force on many cultures of the world today. In these days of scientific knowledge and reasoned logic, belief in folk lore is still strong and many people have great faith in herbal remedies. This belief exists even though many have thought that folk medicine has fallen into disrepute in this country, because scientific investigation of folk lore remedies seemingly proved them to be worthless. Perhaps these failures were due in part to the use of the so-called Indian Remedies, various forms of quackery and magic ritual such as wearing amulets and chanting spells.

Just what is folk medicine, of what value might it be and why does it exist? This might be answered by Sir William Osler, who at the turn of the century noted that the difference between man and primate is that man loves to take medicine. This love of self-medication prompted man to experiment with a variety of substances, sometimes extremely noxious, until he found a variety of plants and substances that alleviated his miseries. These home remedies were passed from generation to generation and evolved for the specific treatment of illness. Just how good was Grandma's medicine chest? Are her "treasures" being neglected? Shall we go back to those herbs such as boneset, mullein, tansy, pumpkin seeds, chamomile, liverwort, slippery elm and sage which served this country for many years in the treatment of most ailments?

CATALYST AWARDS

The Chemical Manufacturer's Association offers the Catalyst Awards for Excellence in Science and Chemistry Teaching. The '94 awards will be the 38th year of honoring excellence in teaching science, chemistry or chemical engineering in elementary, middle, high schools, two-year and four-year colleges throughout the United States and Canada. The awards consist of one national award of \$5,000 and four regional awards of \$2,500, with a medal and citation for each category. The deadline for nominations for the '94 awards is January 28, 1994, with the announcement of awards slated for April 15, 1994. For more information, please write to:

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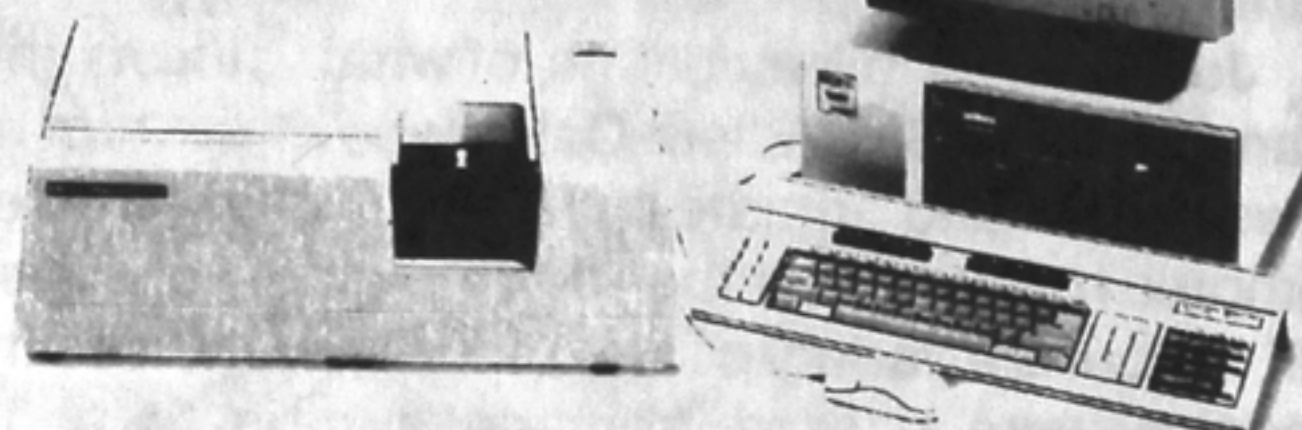
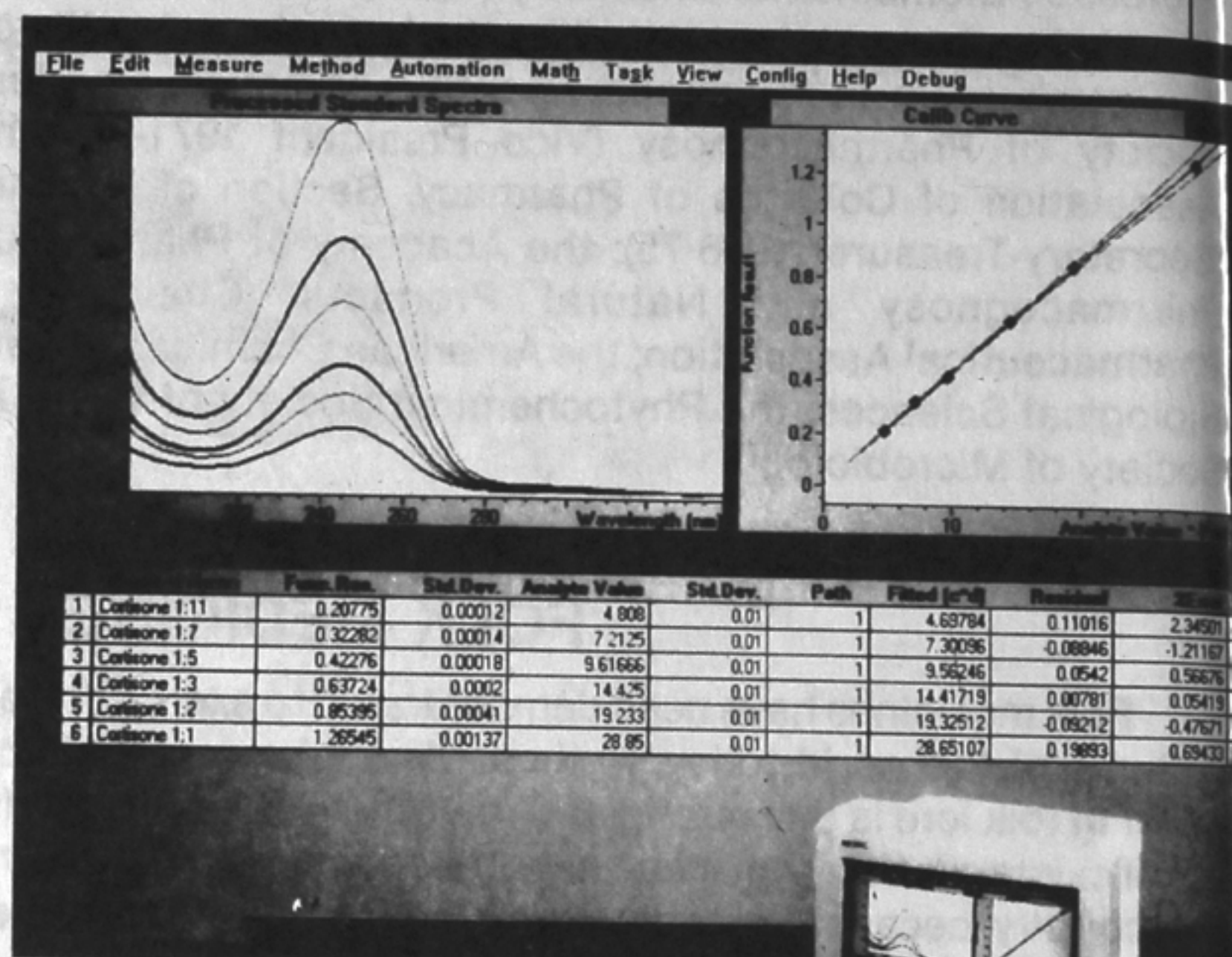
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For More Information Call: Dave Randle at (503) 598-8283

IOTA SIGMA PI

The Puget Sound Section will hold a joint meeting with IOTA SIGMA PI on November 9, 1993, at North Seattle Community College.

IOTA SIGMA PI is a national honorary society for women in chemistry with the major objectives: 1) to promote interest in chemistry among women students, 2) to foster mutual advancement in academic, business, and social life, and 3) to stimulate personal accomplishment in chemical fields.

IOTA SIGMA PI was founded in 1902 and was organized on a nation-wide basis in 1916 with over 10,000 members initiated into the society in at least over 40 local chapters established in various colleges, universities, and metropolitan areas.

IOTA SIGMA PI strives to promote the advancement of women in chemistry by granting recognition to women who have demonstrated superior scholastic achievement and high professional competence by election into the society, scholarships to graduate and undergraduate women students in chemistry, and presentation each triennium of The Agnes Faye Morgan Award to a young woman chemist with outstanding research achievement and, annually, the presentation of The Anna Louise Hoffman Award for Outstanding Achievement in Graduate Research as well as The Undergraduate Award for Excellence in Chemistry.

Members are elected on the basis of scholastic and/or professional record. Those eligible for election are: undergraduate students with high scholastic average in ACS approved degree-granting institutions; graduate students in chemistry or related fields with high scholastic achievement from approved institutions; professional applicants holding a Ph.D. in chemistry or allied science, or those holding a bachelor's or master's degree in chemistry or allied science and a number of years of employment history.

Those interested in more details can obtain information by attending the joint meeting on November 9, or by phone from either Margaret Pitts, (206-728-4698) or Celia Scott, (206-363-4332).

NORTHWEST REGION ACTIVITIES 1993

The NORM held in Laramie, Wyoming, June 17-19, was attended by somewhat more than 250 persons, although only 10 of the 14 member sections were represented at the NOR Board Meeting. The program included 137 papers (including posters): A.C.S. workshops on Regulatory Compliance; Waste Minimization and on Establishing and Maintaining Student-Member Interfaces; Symposia on Hazardous and Mixed Wastes, on Reactions at Electrophilic Metal Centers, on Chemistry in Self-Assembled and Organized Media, on Photochemistry of Inorganic and Organometallic Compounds, and on Sensors and Sensor Chemistry; and Sessions of contributed papers on Biochemistry and Molecular Biology, Analytical Chemistry, Physical and Theoretical Chemistry, Organic Chemistry, Inorganic Chemistry, Environmental and Atmospheric Chemistry, and Fuel Chemistry and Engineering.

The 1994 NORM will be hosted by the Alaska Section and will be held in Anchorage, June 16-18. Further information will be available early in 1994.

The 1995 NORM will be hosted by the Central Utah Section and will be held in Park City, Utah, June 14-16.



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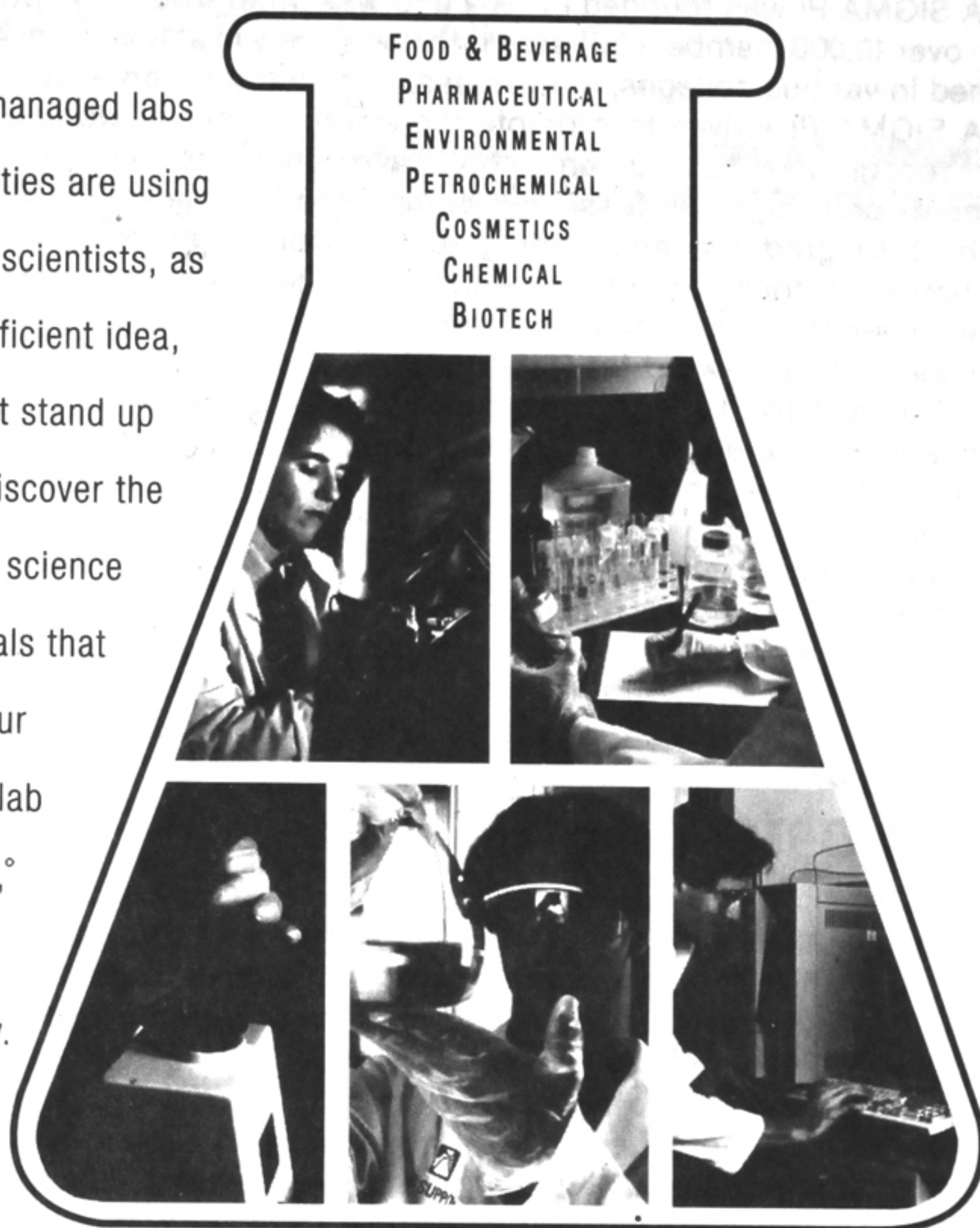
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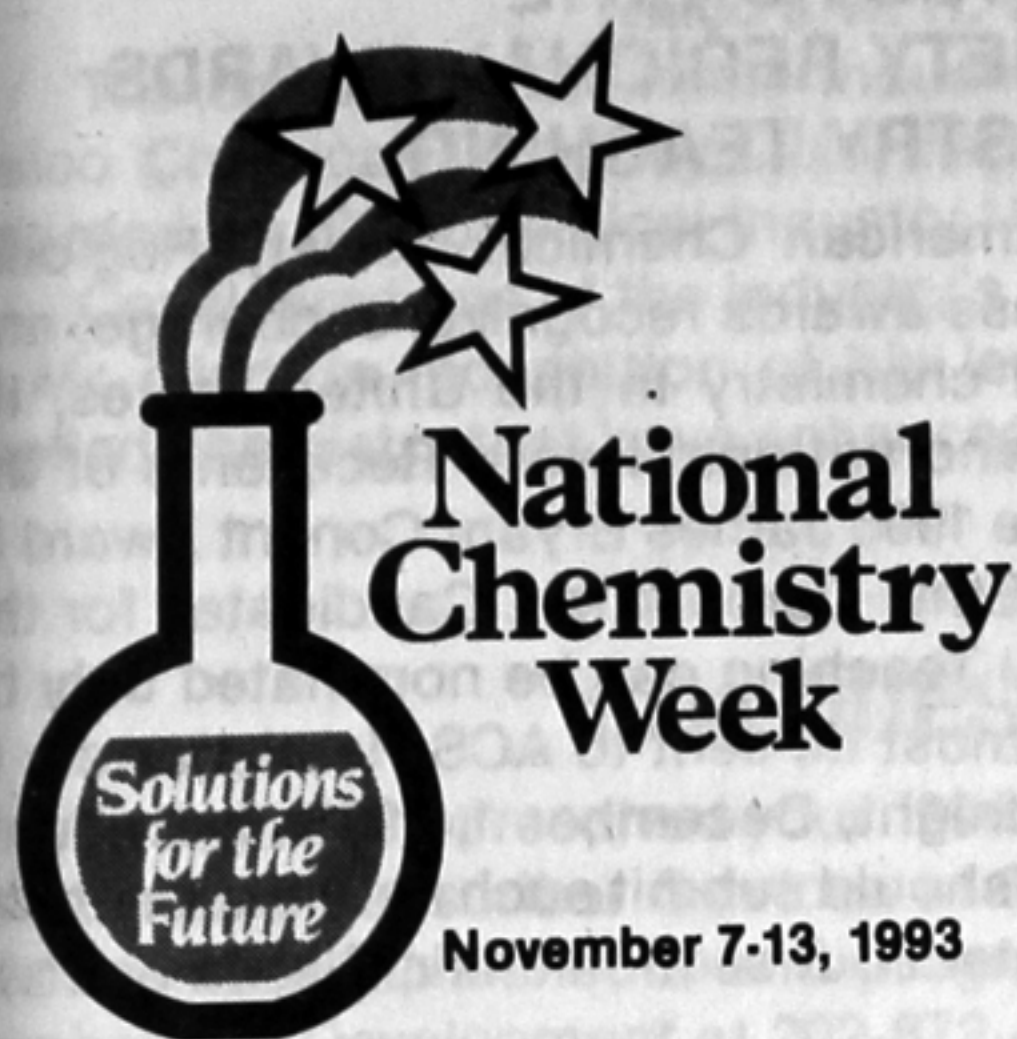


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NATIONAL CHEMISTRY WEEK

The 1993 celebration of National Chemistry Week is slated for November 7-13, 1993. One of the goals of the NCW 1993 Task Force is to promote more active Student Affiliates involvement with their local section and its NCW activities.

The NCW-1992 successes of several Student Affiliates groups include Tennessee Technological University in Cookeville which organized their own NCW event, a chemistry fair for elementary students. The fair featured a number of hands-on experiments for each of the 85 or so participants. Another unique activity sponsored by the University of Arizona Student

Affiliates chapter in conjunction with the local section was the demo-a-day project. The students developed five demonstrations that they delivered to their local weather person for the evening weather spot during NCW! This activity was a booming success and a great vehicle for increasing the public's awareness of chemistry.

A two-hour TV seminar on Teaching Introductory Chemistry will be offered by the ACS, live via satellite, during National Chemistry Week on November 8, 1993 from 6:00-8:00 p.m. EST. The seminar is intended for high school and college instructors, department heads, science supervisors, administrators, and anyone interested in chemistry education.

For further information or registration for the TV seminar, call 1-(800)-227-5558 or (202)-872-6311, FAX (202)872-6336, or write to American Chemical Society, Satellite TV Seminars, 1155 Sixteenth Street, N.W., Washington, DC 20036.

WASHINGTON COLLEGE CHEMISTRY TEACHERS ASSOCIATION

The Washington College Chemistry Teachers Association will, following their successful program of 1992, hold their annual conference on November 11-13 at the Yakima Holiday Inn in Yakima, WA.

The conference will feature presentations and discussions of first two years of college curriculum on aspects of General, Health Science, Introductory, and Organic Chemistry. There will be a panel discussion featuring Dr. Graham Solomons (of the Solomons Organic Chemistry textbook) from England.

For further information about the conference, please call Kathy Ashworth at Yakima Valley College, (509) 575-2365, or Cathy Lyle at Bellevue Community College, (206) 649-3121.

As part of the program, there will be a workshop on Organic Microscale Techniques on Saturday, November 13, 1993, from 9:30 to 11:30 a.m. at Yakima Valley Community College, Yakima, WA. No fee is required for the workshop; however, attendance will be limited to 20 persons. The workshop will be conducted by Donald L. Pavia, Gary M. Lampman and George S. Kriz of Western Washington University, and Randall G. Engel of Edmonds Community College. The workshop will be a hands-on introduction to organic microscale techniques. For details about the workshop please contact Donald Pavia at the Department of Chemistry, Western Washington University, Bellingham, WA 98225; phone: (206) 650-3155 or -3070; FAX (206) 650-2826.

CALL FOR NOMINATIONS FOR 1994 SECTION OFFICERS

Suggestions for nominations for 1994 officers of the Puget Sound Section of the American Chemical Society should be made to Dr. Despina Strong, Chair, Nominating Committee, at Metro, 206-684-2322. We need more members taking part in the activities of the Section. Please call.

NOMINATIONS SOLICITED FOR THE 1994 AMERICAN CHEMICAL SOCIETY REGIONAL AWARDS IN HIGH SCHOOL CHEMISTRY TEACHING

Nominations are solicited for the 1994 American Chemical Society Regional Awards in High School Chemistry Teaching. These awards recognize, encourage, and stimulate outstanding teachers of high school chemistry in the United States, its possessions or territories, at both the regional and national levels. Recipients of the 1994 Regional Awards become candidates for the 1996 James Bryant Conant Award in High School Chemistry Teaching sponsored by Ethyl Corporation. Candidates for the ACS Regional Awards in High School Chemistry Teaching can be nominated **only** by local sections. Nominations for the 1994 Award must be sent to ACS Headquarters in Washington, DC, postmarked no later than midnight, December 1, 1993. Individuals wishing to propose a candidate for consideration should submit such nomination to the local section. For further information, please contact our section chair, Clarita C. Bhat, at 206-546-4575.

DuPont's Howard Simmons Wins 1994 Priestley Medal

Howard E. Simmons, Jr., retired Vice President of Research at DuPont, is the 1994 winner of the American Chemical Society's (ACS) Priestley Medal, the nation's highest award in chemistry. Dr. Simmons is being recognized for his many years of distinguished service to chemical science, industry, and society. He will receive the award next April during the ACS national meeting in San Diego.

The solid gold Priestley Medal was instituted by ACS in 1922 to commemorate the work of Joseph Priestley, the British-born discoverer of oxygen who emigrated to the United States in 1794.

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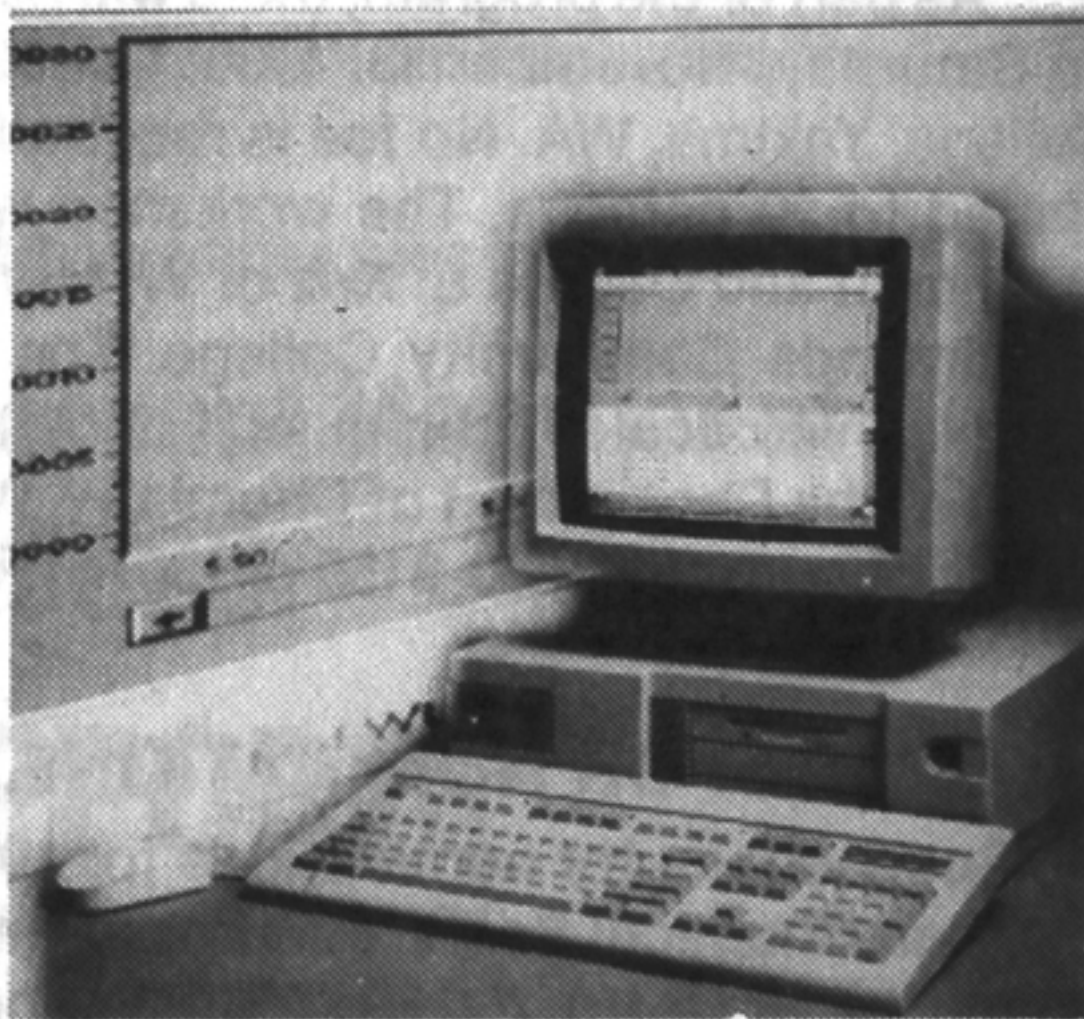
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Nalco's W. H. Clark Awarded SCI Medal

The Society of Chemical Industry (SCI), American Section, has announced that Nalco Chemical Company Chairman and Chief Executive Officer W. H. Clark was awarded its 1993 Chemical Industry Medal this October in New York.

Considered one of the industry's prestigious awards, the gold medal is presented to Mr. Clark in recognition of his leadership, foresight, and many contributions to applied chemistry that have enhanced the progress of the entire industry.

1994 DUES BILL REMINDER

If you have not received your 1994 dues bill, please contact the ACS Department of Member and Subscriber Services at 800-333-9511. If you have questions concerning your membership benefits and programs, please call Jean Parr, Manager, Office of Membership Development at 202-872-4414.

Additional Reminder: In accordance with an ACS policy on a grace period for unrenewed ACS journals and *C&EN*, ACS cannot continue to send *C&EN* and journals after February 28 to those members whose 1994 dues and subscription payments are not received by February 1. If you have questions about your dues bill or wish to charge your payment by phone, call 800-333-9511 or 614-447-3600. Be sure to have your credit card handy for ready reference.

DID YOU KNOW?

A medical study of 180 U.S. newlyweds shows that arguing can be unhealthy. Reasoned disputes are O.K., but sarcasm and put-downs can result in elevated blood pressure and weakened immune systems (at least for one of the partners?).

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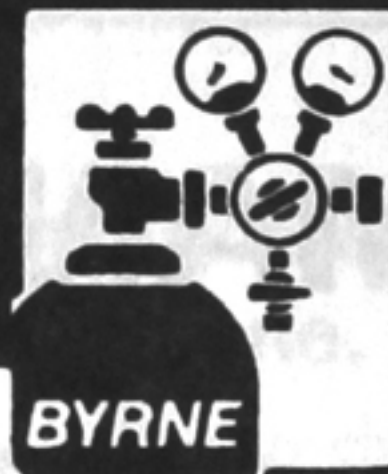
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UPDATE FROM THE SOCED TASK FORCE ON NATIONAL MEETING PROGRAMMING FOR UNDERGRADUATES

The following news items and new programs for undergraduate students were announced at the spring ACS National Meeting in Denver, Colorado.

Undergraduate Programming at National Meetings

- The Society Committee on Education (SOCED) accepted the recommendation of the Task Force on Undergraduate Programming at National Meetings (Task Force) that the programs for undergraduates become a permanent feature at all ACS national meetings.
- The Task Force invites suggestions and comments about the ACS national meeting programs and is looking for ways to deliver the type of activities that the members and affiliates want. At the ACS you can talk to John Higashi of the Student Affiliates program (1-800-227-5558).

Awards Ceremony in San Diego

- Beginning at the San Diego meeting in March 1994, a regular feature of every spring national meeting will be a ceremony to recognize the 1992-93 outstanding and commendable Student Affiliates chapters. Certificates will be presented to designated student representatives from the chapters respective to the announcement of the awardees made the previous October. The exact nature of the event is being planned and its details will be available soon.

Award for Chapter Advisors

- The Task Force will recognize the dedication and hard work of the faculty and professional advisors to Student Affiliates chapters. The details on the nominating and review process and official announcement of this activity will be available soon. The award will be presented at the 1994 spring meeting alongside the award ceremony in San Diego.

Undergraduate Research Poster Sessions at Fall ACS National Meetings

- More than 150 posters were presented in Denver in the Undergraduate Research Poster Session (URPS) by the students from over 65 different schools in 31 states and Puerto Rico. This was a tremendous and largest turn-out ever! Because of this enthusiastic participation and the alternate geographic locations between spring and fall national meetings, the Task Force will experiment hosting an URPS, for the first time, at the 1994 Fall national meeting of the Society in Washington, DC. If this is successful, URPS will also become a regular feature of the undergraduate programs at both spring and fall national meetings. As you plan your research for the next year, consider having your students present in Washington, DC.

WHAT IS HAPPENING IN CHEMISTRY? CHEMISTRY-RELATED HIGHLIGHTS OF 1992

MARCH—

- Scientists find another important use of the scanning tunneling microscope (STM). For the first time, they successfully use the STM to selectively break up individual molecules stuck on a surface and also to examine byproducts of the breakup.
- Another cage-like structure similar to fullerenes is found. Penn State chemists announce that cluster of eight titanium atoms and twelve carbon atoms is highly symmetrical and stable. Like fullerenes, the new cluster (called metallocarbohedrene) also has a cage-like structure but is expected to have unusual chemical and physical properties, different than those of fullerenes.
- Scientists isolate and identify a key chemical—called sulforaphane—in broccoli that induces enzymes with anticancer properties. People eating cruciferous vegetables—such as broccoli, brussels spouts and cabbage—are known to have lower cancer risks. Sulforaphane is believed to be the most potent known agent of its kind.

KIDS & CHEMISTRY OUTREACH PROGRAM TURNS KIDS ON TO SCIENCE THROUGH HANDS-ON DEMONSTRATIONS IN LOCAL COMMUNITIES

WASHINGTON, DC — With kid-friendly kits like "Creatures from a Desert Pond" and "Jiggle Jelley," the American Chemical Society is test-launching a new program designed to share the excitement of chemistry with children ages 9-12.

The Kids & Chemistry program pairs scientists with kids for hands-on experiments that relate science to everyday life. In the process they will learn about current science issues and basic chemistry principles. The program is a partnership between local volunteers and ACS, and it will be supported by schools, companies and parents in the communities where the program is being tested.

Kids & Chemistry will initially be tested for a year in Irvine, California; Minneapolis, Minnesota; Baytown, Texas; and Arlington, Virginia. The programs were launched in these cities starting in late September. If the test run is a success, the program will go national through ACS's network of Local sections.

Kids & Chemistry centers around hands-on kits supplied by ACS. These lunch-bag sized packages hold enough experimental materials for four children each, and are meant to be used outside school. The kits include "Creatures from a Desert Pond," "Jiggle Jelly," "Chemical Reactions," and "Acid Rain."

The experiments are designed to relate science to real-life applications. For example, the "Chemical Reactions" kit will give children insight on how their bodies digest food. The "Acid Rain" kit will show the effect of acid rain on different surfaces.

A second facet of Kids & Chemistry is CHEM (Chemicals, Health, Environment, & Me), a classroom program from the Lawrence Hall of Science in Berkeley, CA. Other components include Science-By-Mail (a pen-pal program with scientists, developed by the Boston Museum of Science) and Project Link (a school-based mentoring program to promote gender equity in math and science).

Another crucial element of the program is the Science Alliance for Kids & Chemistry. This involves employers and civic groups, which can donate money, time or the use of facilities or materials to run the program. Communities also can get involved by providing a venue for Kids & Chemistry sessions, for instance at scout meetings, museums, shopping malls and schools.

ACS will train volunteers to conduct the programs and work with children.

If you would like to attend a launch in any of the four cities, please contact Sophie Wilkinson at the ACS News Service at 202-872-4443.

MORE CHEMISTRY-RELATED HIGHLIGHTS OF 1992

APRIL—

- A National Research Council report upholds that DNA typing, or "fingerprinting," is reliable for solving criminal cases. However, the report stresses that strict technical standards are needed to ensure proper use of the method.
- Scientists find evidence confirming the Big Bang theory. The Big Bang theory states that the universe was formed in a big explosion some 15 billion years ago. The evidence came from measurement of small variations in temperatures, across regions of space, that were predicted by theorists but were never observed.
- A new material that may be harder than diamond is developed by Northwestern University scientists. The material is a thin film of a carbon nitride, one of a possible series of compounds with this potential.
- Scientists find the peptide that gives beef a meaty taste. Discovery of the naturally occurring peptide—called "BMP" for beefy-meaty-peptide—could allow cooks to enhance meat flavor in many frozen dinners, soups and other foods.
- Scientists produce human protein C (hPC)—a naturally occurring therapeutic, anticlotting agent—from the milk of transgenic pigs. hPC has also further potential for treatment of secondary (excess) blood clotting during medical problems.

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Puget Sound Section, ACS Executive Committee Future Meetings in 1993

Meetings are open to all members and are held on the second Wednesday each month.

November 10

Place: Seattle University
Dinner: 5:30 PM in Cafeteria (optional)
Meeting: 6:30 PM in Room 511,
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