

# PUGET SOUND CHEMIST

BULLETIN OF THE PUGET SOUND SECTION OF THE AMERICAN CHEMICAL SOCIETY

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## What is Environmental Chemistry?

Environmental chemistry has become firmly established as a viable subdiscipline in the chemical sciences, and some chemical educators argue that it should be a required part of the curriculum for a chemistry degree; this will be the thesis of Dr. Stanley E. Manahan's presentation at 7:00 p.m. on Monday, September 24, 2001, in room CHB 102 at the University of Washington.

Environmental chemistry may be defined as the study of the origins, transport, reactions, effects, and fates of chemical species in the atmospheric, aquatic, terrestrial, and living environments. The successful applications of environmental chemistry can be used to predict pollution problems at the design stages of new technologies, permitting remedial action to be taken before major problems actually develop.

Among the specific topics addressed are such diverse issues as aquatic microbial biochemistry, gaseous inorganic air pollutants, soil chemistry, and reduction, treatment, and disposal of hazardous wastes.

Dr. Manahan is a professor of chemistry at the University of Mis-

*(please see Manahan, page 3)*



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**Who:** Dr. Stanley E. Manahan,  
Univ. of Missouri, Columbia

**What:** "What is Environmental  
Chemistry?"

**Where:** CHB 102, University of  
Washington, Seattle

**When:** Monday, September 24 at  
7 p.m. (Dinner at 6 p.m.)

**How much for dinner:** \$15,  
Gretchen's Shoebox Express, call  
Brenda Humphrey at (206) 543-  
2596 or email Debbie Wiegand at  
wiegand@u.washington.edu for  
reservations by September 20.



PUGET  
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# CHEMIST

Newsletter for the Puget Sound Section

On-line version: [www.btia.net/acs/](http://www.btia.net/acs/)



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## Hey! We have acting editors but...

Executive committee meetings are open to all members and are held at 6:30 p.m. The next meeting of the Executive Committee will be **Wednesday, September 12, 2001**, in room 2430C (above the Bookstore) at North Seattle Community College, 9600 College Way North in Seattle. Bill Wasserman and Herb Bryce have kindly agreed to act as the *Chemist's* editors for the balance of the year.



## **Manahan** *(continued from p. 1)*

souri at Columbia, where he has been on the faculty since 1965. He received his A.B. in chemistry from Emporia State University in Kansas in 1960 and his Ph.D. in analytical chemistry from the University of Kansas in 1965. Since 1968, his primary research and professional activities have been in environmental chemistry, with recent emphasis on hazardous waste treatment.

His current research deals with gasification as an alternative to incineration as a means of thermally treating hazardous waste materials without producing toxic pollutant byproducts. Professor Manahan teaches courses on environmental chemistry, hazardous wastes, toxicological chemistry, and analytical chemistry and has lectured on these topics throughout the US as an ACS Local Sections tour speaker.

He serves as external examiner to the Environmental Sciences Program of the Chinese University of Hong Kong and as an advisor to the Environmental Chemistry and Chemical Engineering Program of the National Autonomous University of Mexico. He is also president of ChemChar Research, Inc., a firm working with the development of non-incinerative thermochemical and electrothermochemical treatment of mixed hazardous substances containing refractory organic compounds and heavy metals. Professor Manahan has written books on environmental chemistry, general/environmental chemistry, hazardous wastes, toxicological chemistry, applied chemistry, and quantitative chemical analysis. He is the author or co-author of approximately 85 research articles.

The talk will be preceded by dinner at 6:00 p.m., which will be box meals from Gretchen's Shoebox Express. Check the menu at <http://gretchensshoebox.com/staticmenu.asp>, but please **do not order from there**.

*(please see Manahan, page 7)*



# Lab

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# Section Activities

## Reflections on a successful NORM

by Sue Jackels, General Co-Chair, NORM 2001

The 56th ACS Northwest Regional Meeting (NORM 2001) was hosted by the Puget Sound section of the ACS and held at Seattle University, Thursday, June 14 through Sunday, June 17. The meeting had a full and rich program of papers, including sixteen symposia, seven sessions of contributed papers and two large poster sessions, in all totaling 370 papers. The three plenary sessions and six interdisciplinary public lectures addressed the meeting theme: "The Future of Chemistry is Here."

In chronological order, the plenary and public presentations were "Technology in the 21st Century," presented by Lura Powell, director, Pacific Northwest National Laboratory; "DNA Double Helix: A Conduit for Charge Transport?" presented by Jacqueline Barton, California Institute of Technology; "Bioengineering of Tissues: A Partnership of Chemists, Engineers, Biologists and Physicians," presented by Buddy D. Ratner, University of Washington; "History and Chemistry of Plutonium Extraction at Hanford," presented by Earl Wheelwright, Pacific Northwest National Laboratory; "Earth: An Oasis in Space and Time," presented by Donald Brownlee, University of Washington; "Developing a Strategic Approach to Climate Change" presented by James Edmonds, Pacific Northwest National Laboratory; and "The Future of Science Education," presented by Glenn Crosby, Washington State University.

The lecture series culminated on Sunday with a session on "The Human Genome: What Is It, What We Know About It, and How We Know It," presented by Alan Weiner, University of Washington, and "Science Policy and Genopolitics," presented by Paul Billings, Gene Sage & Co., San Francisco.

Full programs were offered for K-12 teachers and for undergraduate students and young chemists. Other activities at the meeting included nine workshops, a vendor exposition with 24 exhibits, the ACS Career Resource Center featuring a Regional Employment Clearing House, the ACS Industrial Innovation Award, Chemagination 2025 — a poster and essay competition for local high school students, the ACS Director's breakfast, and a "Careers in Biological Chemistry" panel.

There was also a dramatic presentation on "The Life of Marie Curie," presented by Carol Berg of Bellevue Community College, as well as a great demonstration show, "An Incredible Evening of Chemistry," presented by Herb Bryce of Seattle Central CC and Tim Hoyt of the University of Puget Sound.

Recreational activities included an excursion by boat to Blake Island and Tillicum Village for the Banquet and a Northwest Native American Show.

Rounding out the program were two luncheons, one for the High School Teacher of the Year Award and Women Chemists and another for the Washington College Chemistry Teachers Association. The High School Teacher of



the Year Award was presented to Steven K. Ufer of Washington High School in Tacoma.

The NORM 2001 web site is still available with more information at <http://www.chem.plu.edu/norm>. The 740 registered participants in NORM 2001 included 400 chemists, 152 graduate students, 55 undergraduate students, 50 precollege teachers (including the participants in Chemagination), and 70 guests, exhibitors and volunteers.

Several ACS national officers attended NORM, including Eli Pearce, President-elect of the ACS and Nina McClelland, the Chair of the national Board of Directors of the ACS. The meeting budget was over \$100,000 with approximately \$70,000 collected through registration. The remaining \$30,000 was gifts and grants. We wish to acknowledge the following: \$10,000 from PNNL, \$10,000 from the University of Washington, \$5000 from ACS and \$5000 total from other institutions and corporations, such as Immunex, Zymogenetics, AusAm Biotechnologies, and the Fred Hutchinson Cancer Center.

A marvelous steering committee of 19 people worked in total dedication with their associated committees to plan and produce the meeting. Particular debts of gratitude go to Bill Reinhardt, program chair; Tom Griffith, general co-chair in charge of fund raising; Craig Fryhle, web master; Dean Waldow, for the on-line software to submit abstracts and produce the program; Mara Rempe, exhibit show chair; Debbie Wiegand, teachers' program; Jeff Schultz, undergrad and young chemists program; Clarita Bhat and Kathy Hohstadt for the social events; and Justine Furutani, NORM treasurer. Greg Spyridis helped with arrangements and many others contributed in important ways at the meeting.

All of the NORM steering committee is grateful for the support of John Sophos of the national Office of Regional Meetings.

Special thanks are appropriate for the Seattle University event planning and production staff that included all the set-ups, food, audio/visual support, safety and security, mail room services and housing administration. This meeting was truly a team effort, made possible by the talents and dedication of all involved and their willingness to endure hundreds of email messages and many meetings. Last, but not least, we are thankful for the good weather that made NORM a very enjoyable event.



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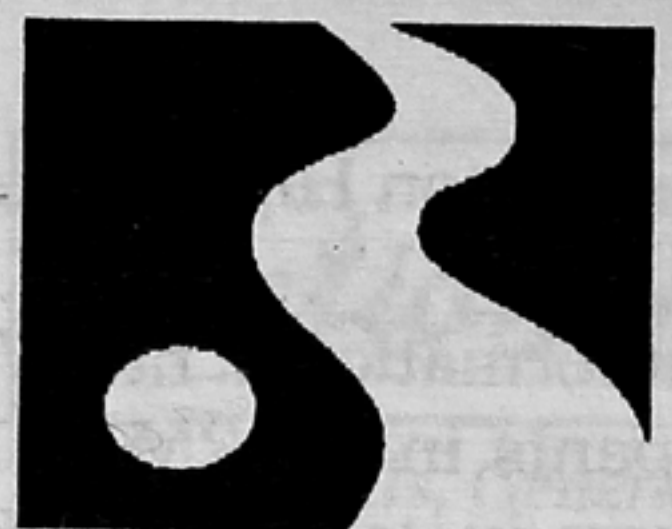
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# *Employment Opportunities*

**Oceanography instructor, part-time, North Seattle Community College** — A part-time instructor is needed for the Survey of Oceanography class, meeting 8 to 8:50 a.m. Mondays, Wednesdays and Fridays, starting September 24. Topics to be covered are variable and can be tailored to the specialty of the instructor. Please contact Tom Griffith, Dean of Science/Math, NSCC at (206) 527-3747 or tgriffith@sccd.ctc.edu.

**Chemistry instructors, part-time, North Seattle Community College** — One part-time organic chemistry lab instructor and one part-time general chemistry instructor are needed for winter quarter classes beginning January 7, 2002. Please contact Tom Griffith, Dean of Science/Math, NSCC at (206) 527-3747 or tgriffith@sccd.ctc.edu.

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## **Manahan** *(continued from p. 3)*

Instead, make reservations by calling Brenda Humphrey at (206) 543-2596 or e-mailing Debbie Wiegand at [wiegand@u.washington.edu](mailto:wiegand@u.washington.edu), and include your choice of box meal from Gretchen's. The cost of the dinner is \$15, and reservations should be made by Thursday, September 20.

Room CHB 102 is located in the Chemistry Building on the UW campus in Seattle. Maps are available at <http://www.washington.edu/home/maps/> and parking is available in the underground lot off of 15th Ave. NE and NE 40th St.

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# Upcoming meetings

**September 24** Stanley Manahan, U. of Missouri  
"What is Environmental Chemistry?"  
(site: University of Washington)

**October 18** John Marquart, Eastern Illinois Univ.  
"Caves — Worlds within the World"  
(site: W. Washington Univ., Bellingham)

**November 26** R. Paul Philp, U. of Oklahoma  
"DDT in the 60s; dioxin in the 70s; PCBs  
in the 80s and now MTBE — the latest  
environmental problem child!"  
(site: Seattle University)

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