

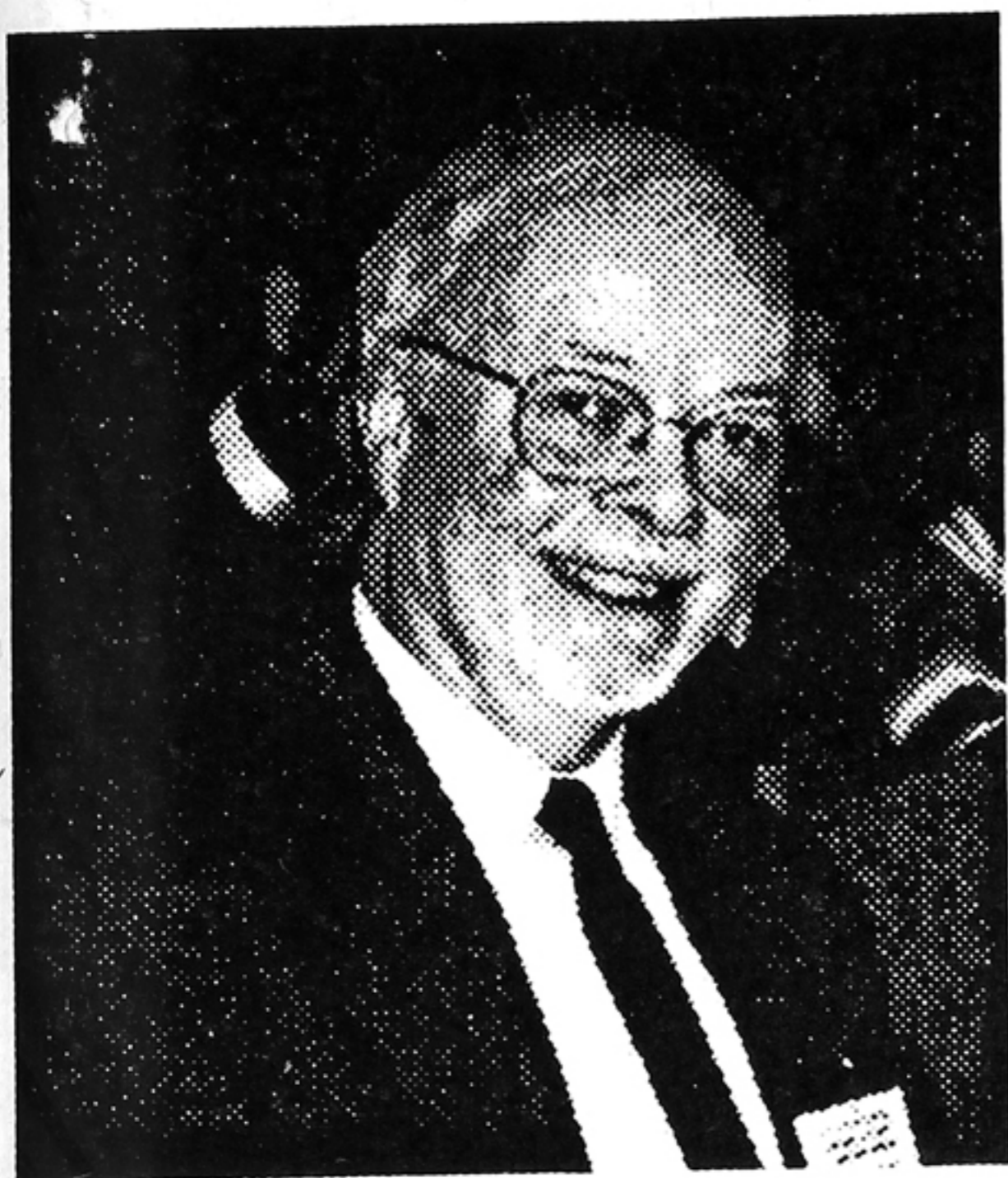
# PUGET SOUND CHEMIST

BULLETIN OF THE PUGET SOUND SECTION OF THE AMERICAN CHEMICAL SOCIETY

Volume 60, Number 3



APRIL 1999



## Stardust memories at May ACS meeting

"How has interstellar organic chemistry evolved?" is the intriguing question Professor Yorke E. Rhodes poses in his talk at the next Puget Sound Section meeting at Western Washington University. The Wednesday, May 12, talk begins at 8:00 p.m. in the Science Lecture Hall (room SL110); dinner and a reception at 6:00 p.m. will precede the talk.

At the dawn of space age in the 1960s, a handful of molecules were known to exist off of the Earth. Since then, robotic exploration of the surface of the moon and Mars, fly-bys with spectroscopy of the outer planets and radioastronomy of distant areas of our own galaxy have brought forth a burst of molecular information.

About one hundred molecules have been identified to date. Professor Rhodes asks (and will answer) the following questions: What types and kinds of molecules exist? What varieties of molecular species have been found? How did they form, and what mechanisms exist for molecular formation? Can we model

(continued on page 6)

### May meeting

**Who:** Yorke E. Rhodes

**What:** "Astrochemistry: The Evolution of Organic Molecules in Interstellar Clouds"

**Where:** Western Wash. University Science Lecture Hall

**When:** Wednesday, May 12, at 8:00 p.m.

**How much for dinner:** About \$16; reservations by May 11 to Mark Wicholas, (360) 650-3071, or Craig Fryhle, (253) 535-8314

# PUGET SOUND CHEMIST



THE BULLETIN OF THE PUGET SOUND  
SECTION, AMERICAN CHEMICAL SOCIETY

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Published eight times during the academic year (September through the following June) by the Puget Sound Section of the American Chemical Society. Total circulation: 1800. Direct all copy to the Editor and advertising correspondence to the Business Manager. The Secretary handles other business. Letters may be edited due to space considerations. Please word-process or type all correspondence!

## Puget Sound Section ACS Executive Committee Future Meetings in 1999

Meetings are open to all members and are held at 6:30 p.m. on the second Wednesday of each month in room 2430C (above the bookstore) at North Seattle Community College in Seattle (across I-5 from Northgate Mall). The next meeting is **Wednesday, April 14**. The May 12 meeting will be at Western Washington University in Bellingham.

# 50-year members share thoughts

## Lyman R. Caswell

Lyman R. Caswell was born in Omaha, Nebraska, in 1928. He grew up in Rockport, Indiana, where his family settled in 1934. He received his BS and MA from Indiana University and his Ph.D. in organic chemistry from Michigan State University in 1956. After brief appointments at Ohio Northern University and Upper Iowa University, he joined the faculty of Texas Woman's University in Denton, Texas, in 1961, where he stayed for 33 years.

Dr. Caswell taught organic chemistry and carried out research on the synthesis of cyclic imides and in the measurement and inter-  
(continued on page 7)

## Paul L. Koehmstedt

Paul L. Koehmstedt graduated from Oregon State University with a BS (1949) and an MS (1953) in chemistry. He was employed at GE in Hanford for three years, and then at Boeing for 13 years. He then worked for Battelle in Hanford for 23 years, followed by consulting for three years. He is the author of 37 publications, including six US patents and two Canadian patents. His three most prominent inventions are:

- The world's first tritium in-  
(continued on page 8)

## April meeting update

The subject of Warren Bush's talk at the April 8 meeting of the Puget

Sound Section has been changed to "Tell Me About Yourself" in which he will review and suggest job interview strategies. The talk will still be at Seattle Pacific University at 7:30; the dinner will still cost \$13 and reservations should still be made to Kathy Hefner at (206) 281-2351.

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## **Bouquets and Brickbats for Mer**

### **Thanks to volunteers at South Sound Sci. Fair**

*by Anita Wahler, Pacific Lutheran University*

The 1999 South Sound Regional Science Fair was a huge success. This fair was directed by Marge Halstead of Pacific Lutheran University, was the result of a partnership between Intel and PLU. Over 110 students attended, with 150 projects. Eleven local high schools and two local junior high schools were represented. Sponsoring prizes were Intel, PLU, The American Chemical Society, State Farm, the U.S. Army, Air Force, Navy, and Marines, the Association of Women Geoscientists, NACE International, the Society for In Vitro Biology, the National Council of Teachers of Mathematics, Sigma Xi, and Kodak. Over \$5,000 in cash and \$16,000 in scholarships were awarded.

In the Biochemistry section, First Prize and \$250 goes to Ashely Haug from Sumner High School for "Bio-solids as a Replacement to Fertilizer". Ashley is also one of our Grand Prize Winners and will attend the Intel International Science and Engineering Fair in Philadelphia beginning May 2. Second Prize and \$125 goes to Allen Kim from Washington High School for "Different Levels of pH Tested in the Mouth Throughout the Day". Third Prize and \$50 goes to KC Courtney from Timberline High School for "Energy: The Substance that Fuels My Little Brother".

In the Chemistry section, First Prize and \$250 goes to Justin Leighton from Franklin Pierce High School for "Which Oil is Best". Second Prize and \$125 goes to Shavonne Brewer from Steilacoom High School for "It's Elemental My Dear" (a chromatography experiment). Third Prize and \$50 goes to Christopher Wang from North Thurston High School for "Electroplating Metals".

I just wanted to pass along to you that the largest contingent of our judges came from the American Chemical Society. Thank you to Jeff Schultz (Chemist).

(continued on page 5)

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# Involve In Section Activities

## Chem Olympiad turnout disappoints

*Millard Wyman, Education Committee Chair*

The turnout for this year's ACS Chemistry Olympiad was low. In fact, if it had not been for the lone participant I would say that the event had not happened at all. I am curious about why this happened. I suspect that the timing of the event was inconvenient for local high school teachers. It could also be that the length and content of the exam appeared intimidating. I will place the blame for this last possibility. In the letter I sent out to high schools I mistakenly described the National exam instead of the Local exam which consists simply of multiple choice and not the multi-part exam described. I did my best to feed people and to make it as comfortable as possible so I feel that if schools were really interested they would have participated anyway.

The exam is comprehensive of a one-year course in chemistry. It would be reasonable to expect students currently taking chemistry to do very well on it since they probably have not been exposed to much of the content. Rather, the ideal participant would be a student who had taken chemistry as a junior and who is still involved in science in some capacity. Believe me I understand how difficult it is to teach in a high school and I can appreciate the notion of organizing students to participate in this competition as being just another burden on your already difficult schedule. Having said that, I will offer that participating in national events like this is a significant part of what teaching chemistry is about.

The goal of the Olympiad is to promote the idea that studying chemistry and excelling in it is a worthwhile end in itself. National math and science competitions typically get a lot of participation. I believe, with the proper

motivation and better timing, that the Seattle area schools, both public and private, can participate significantly in this event and make an impact on the national scale. I would like to know why schools to whom I mailed the letter inviting participation did not respond.

- Did you get the letter?
- If you got it, did you open it?
- If you got that far, did you

(continued on page 6)

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## **Rhodes** (continued from page 1)

and predict what other molecules may occur?

Professor Rhodes, who is with the Department of Chemistry at New York University, earned his BS and MS in organic chemistry at the University of Delaware, and went on to earn his Ph.D. at the University of Illinois in 1964. After a postdoc at Yale University, he joined the faculty at New York University, where his group is doing research in sulfur dioxide solvent chemistry, electrocyclic reactions, small ring chemistry and carbocations, especially neighboring group cyclopropane-assisted carbocation rearrangements. He has received the Golden Dozen Award for Teaching Excellence at his university.

His experience with astrochemistry includes visiting professorships and fellowships at the Jet Propulsion Laboratories in Pasadena, California, and at the Centre d'Astrophysique at the University of Grenoble, France. Last year, he was the chair of the New York Section of the ACS and is also active with the New York Academy of Sciences.

The dinner menu has not been announced yet, but the cost of the dinner should be around \$16 and reservations can be made by contacting Mark Wicholas (phone: (360) 650-3071 or e-mail: [wicholas@chem.wwu.edu](mailto:wicholas@chem.wwu.edu)) or Craig Fryhle (phone: (253) 535-8314 or e-mail: [fryhle@rainier.chem.plu.edu](mailto:fryhle@rainier.chem.plu.edu)) by noon, Monday, May 10. The dinner and reception will be in the Faculty Club in the Canada House.

To get to Western Washington University, leave I-5 at exit 253 and turn onto Lakeway Drive (which becomes Holly Street). Turn left at the fourth traffic light (Garden Street) and continue for 0.8 miles; bear left at the fork. Take the first left onto Highland Drive and then left again into Parking Lot G of the campus. The Faculty Club is in the Canada House, adjacent to the parking lot.

## **South Sound Science Fair** (from page 4)

istry) and Brent Hersey (Biology), to name a couple. They were all incredibly wonderful and many of them volunteered for next year and wanted information on how to volunteer at the State Fair. What a great group of folks, thank you for hooking me up with them!

## **Chem Olympiad** (from page 5)

read it?

- And finally, did you simply decide that it was too much work on your part?

Please let me know so that I can do a better job on this next year), and send responses to: Millard Wyman, Education Committee Chair, Puget Sound Section ACS, PO Box 15269, Seattle, WA 98115-0269.

**Caswell** (from page 3)

etation of both UV-visible absorption spectra and dipole moments. He  
vice served as chairman of the TWU Department of Chemistry. During  
e last twelve years of his tenure, he taught the honors section of the ma-  
rs' freshman chemistry course.

Dr. Caswell retired at the end of August, 1994. A year later, he and his  
wife Ruth completed a long-planned move to Seattle, where the summers  
are more pleasant, albeit shorter, than those in Texas.

He has developed a long-term interest in the history of science into  
retirement research on chemical technology in colonial Spanish America,  
with emphasis on the lives and works of the Delhuyar brothers and Andres  
Manuel del Rio. Other retirement activities include stamp collecting and  
participation in stamp exhibits, and writing science fiction.

## JOB OPPORTUNITY

Western Washington University is looking for a general chemistry  
lecturer for the academic year beginning September, 1999. Applicants  
must have a Ph.D. in chemistry; for further information, contact Mark  
Nicholas at (360) 650-3071 or [wicholas@chem.wwu.edu](mailto:wicholas@chem.wwu.edu)

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## **Koehmstedt** (from page 3)

body fluid measurement system, which was used throughout the Atomic Energy Commission for 16 years until its sensitivity was surpassed.

- An Integral fuel cell leak detection system used by all commercial and military aircraft.

- A chemical warfare protective undergarment; the first 60,000 of these were used in the Gulf War.

He now resides in Poulsbo.

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## **FUTURE MEETINGS in 1999**

**April 8**

**Warren Bush, ACS**

**"Tell Me About Yourself" (site: SPU)**

**May 12**

**Yorke E. Rhodes, New York University**

**"Astrochemistry" (site: WWU)**

**September 16 John Fortman, Wright State University**

**"Chemistry in Movies" (site: Pacific Lutheran)**

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