

VISITORS & EVENTS



Bassam Shakhshiri, former head of science and engineering education at NSF, was the 1993 Ulliyot lecturer.

Bassam Shakhshiri Dazzles Ulliyot Audience

Bassam Z. Shakhshiri of the University of Wisconsin was eminently qualified to speak on the topic he chose as the most recent Ulliyot Public Affairs Lecturer: "Enhancing the Quality of Science Education in the United States." While head of science and engineering education at the National Science Foundation from 1984 to 1990, he increased the NSF education budget from near zero to its current level of close to \$600 million. At the time he concentrated on increasing the supply and quality of future scientists and engineers, but his current concern is for a national commitment to science literacy for all. He feels that the economic threat to America today is far more serious than in the Sputnik era and requires an appreciation and understanding of science and of the benefits of technology on the part of all citizens.

To educate our citizenry more broadly means making science interesting and fun. That in turn requires imaginative approaches—such as chemical demonstrations that are both instructive and spectacular. Shakhshiri presented several such demonstrations, among them effecting amazing color changes with slight changes in pH and dissolving surprisingly large amounts of Styrofoam

peanuts in a small amount of acetone.

The Glenn E. Ulliyot Lecture Series, sponsored by the American Chemical Society's Philadelphia Section, the Chemical Heritage Foundation, the Department of Chemistry of the University of Pennsylvania, and the Philadelphia College of Pharmacy and Science, was established by Glenn E. Ulliyot, who for many years was associated with Smith-Kline Laboratories.

Abe Zoss's Chemical Ventures and Adventures

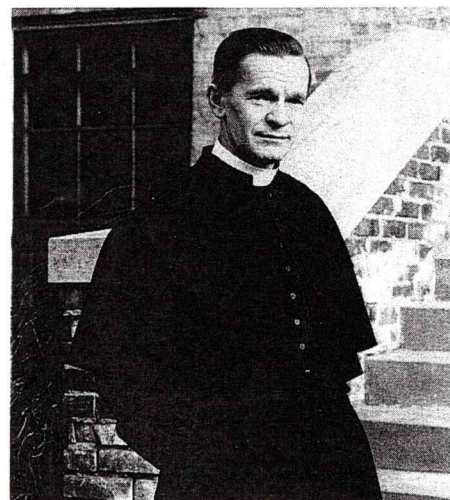
At a CHF *Conversazione*, Abraham O. Zoss, former president of the American section of the *Société de Chimie Industrielle*, told of his chemical life and work. Abe Zoss majored in chemical engineering at Notre Dame University, then took his Ph.D. in organic chemistry there as a member of the acetylene group originally headed by Father Julius A. Nieuwland. Some of the reactions Nieuwland had discovered were explored by Wallace A. Carothers and others at Du Pont in work that led to the discoveries of a synthetic drying oil and of Neoprene rubber.

Zoss joined General Aniline and Film (GAF), where he studied how to produce vinyl ethers and their polymers using high-pressure acetylene reactions. After World War II he was sent to Germany by the Office of Technical Services of the U.S. Department of Commerce, to investigate Walter Reppe's extensive acetylene and polymer discoveries at

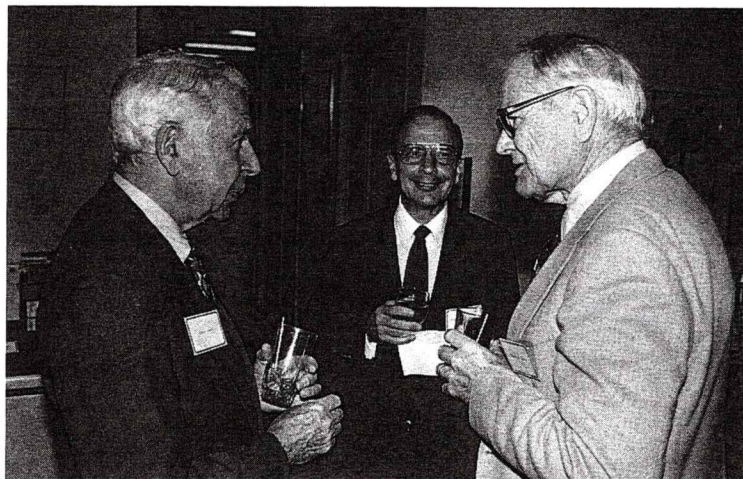
BASF. Zoss finally located the man himself, once he learned that Reppe was in a U.S. Army prison—accused of smuggling notebooks to the Russians.

Zoss directed work on cigarette filters while at Celanese Corporation and also sought a nontoxic smoking material. He gained much international experience by collaborating with the British consortium ICI. In 1972 he became a vice president at Engelhard Industries, where he was involved with the automotive catalytic converter and with platinum complexes used as antitumor drugs. Since 1984 he has been president of the consulting firm of Business Development International, where international technology transfer is one major activity.

Pointing to the continuity of chemists' work, Abe concluded, "Old chemists never die, they just reach equilibrium."



Father Julius A. Nieuwland of Notre Dame was a pioneer of acetylene chemistry. Courtesy Du Pont Hayden Collection.



Abe Zoss, seen here chatting with Charles Price, told CHF of his acetylene and other chemical adventures.