

## PEOPLE NEWS

### Electrochemist Named 1998 Pauling Award Medalist



Allen J. Bard, known for his pioneering work in the area of electroanalytical chemistry, received the 1998 Pauling Award this past November at the University of Washington in Seattle. A scientific symposium, "Frontiers of Electrochemistry," preceded the gold medal presentation.

Professor Bard, who holds the Hackerman-Welch Regents Chair in Chemistry at the University of Texas at Austin, has been called a "chemist for all seasons" owing to the breadth and depth of his work.

His group discovered electrogenerated chemiluminescence, and he and his colleagues also patented a scanning electrochemical microscope. His achievements are said to have had an impact on organic, physical, polymer, solid-state, and analytical chemistry.

Bard was elected in 1982 to the National Academy of Sciences and he received their prestigious "Award in Chemical Sciences" this past year. He became a fellow of the American Academy of Arts and Sciences and of The Electrochemical Society both in 1990, and won a distinguished teaching award from his home institution in 1995. Professor Bard was awarded the ECS Olin Palladium Medal in 1987 and was the first recipient of the Carl Wagner Memorial Award in 1981. All told, he has received nearly 30 medals, prizes, or honors. Professor Bard has delivered nearly 100 named lectures around the world. His leadership roles include serving as editor-in-chief of the *Journal of the American Chemical Society* for the last 18 years. He has also recently finished as chair of

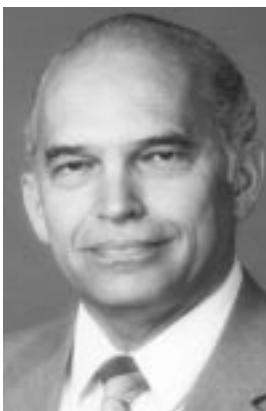
the American Association for the Advancement of Science's Chemistry Section. Professor Bard has over 600 research publications, has written or co-authored four books, and has edited innumerable others. He has more than 20 editorial board memberships to his credit.

Other speakers at the Pauling Award symposium included Fred Anson, the Elizabeth W. Gilloon Professor of Chemistry at the California Institute of Technology; Royce Murray, the Kenan Professor of Chemistry at the University of North Carolina at Chapel Hill; and Larry Faulkner, who became president of the University of Texas at Austin this past April. Professors Murray and Anson are members of the National Academy of Sciences. Dr. Faulkner received his PhD under Professor Bard's supervision in 1969 and co-authored with him the seminal work on electroanalytical and physical electrochemistry.

The annual Pauling Award is jointly sponsored by the Puget Sound, Oregon, and Portland Sections of the American Chemical Society. The award is named after Dr. Linus Pauling, a native of the Pacific Northwest, and the recipient of the 1954 Nobel Prize in Chemistry and the 1962 Nobel Prize in Peace. Recipients of the Pauling Award have made outstanding contributions to chemistry of a character that have merited national and international praise. Indeed, 10 of the 32 former medalists have also received the Nobel Prize in Chemistry, although the Pauling Award is not given in recognition of work for which the nominee has already received the Nobel Prize. From a chemistry standpoint, there is no other meeting held on an annual basis in the Pacific Northwest which exceeds the prestige of the Pauling Award medal ceremony and symposium.

For more information, visit the Pauling Award Web site at <http://www.chem.washington.edu/paulingaward.html>.

### Bruce Deal Receives Lifetime Achievement Award



Bruce Deal was recently presented with the 1998 Semiconductor Equipment and Materials International (SEMI) Award for Lifetime Achievement. The award recognized Deal as the "father of silicon oxidation technology," and for his work on understanding interface charge, for enabling production of stable MOS structures, and his work on HF cleaning technology.

Dr. Deal has been associated with the semiconductor industry since 1959. He joined Fairchild Semiconductor's Research Laboratory in 1963, where he investigated silicon oxidation and passivation (with Andy Grove). His key technical accomplishments at Fairchild included: as a member of a team, he identified alkali ions as the major source of instabilities in MOS devices and developed methods to eliminate these impurities; established an improved understanding of mechanisms and process dependence for silicon oxidation,

leading to the Deal-Grove relationship; and characterized oxide charges associated with the Si-SiO<sub>2</sub> system.

Deal has published nearly 100 technical papers, and is currently a consulting professor with Stanford University and an adjunct professor with Santa Clara University. He has been active in ECS since joining in 1955, chairing many committees, serving as its president (1988-89), and among other honors received, was the recipient of the Solid-State Science and Technology Award in 1993.

### Membership Directory

Keep your records up to date. Please contact us with any changes in your address, telephone (especially new area codes), and e-mail. Visit the "Members Only" section of the ECS website at: <http://www.electrochem.org/members.html>.

## In Memoriam



**Robert A. Laudise**  
(1930-1998)

Robert A. Laudise, Adjunct Chemical Director at Bell Labs, the research and development arm of Lucent Technologies, died on August 20, 1998. He had been a member of The Electrochemical Society since 1978. He received a BS degree in chemistry from Union College, Schenectady, N.Y., in 1952 and a PhD in organic chemistry from MIT in 1956. He

then joined Bell Labs and served as Materials Research Director, Physical and Inorganic Chemistry Research Director, and Materials Processing Director. Groups he led transferred optical-fiber technology to production and prepared the first lithium-niobate and yttrium-aluminum garnet laser crystals. His research interests included solid-state chemistry, materials science and materials conservation, and crystal growth. Most commercial processes used worldwide for preparing crystalline quartz are based on his studies of hydrothermal crystallization. He continued his personal research throughout his career, most recently in the area of crystallization of organic materials.

Dr. Laudise was also adjunct professor of materials science at the Massachusetts Institute of Technology (MIT) and adjunct professor of ceramics at Rutgers University.

"Bob devoted his life to science and Bell Labs," said William F. Brinkman, Vice President of Bell Labs Physical Sciences and Engineering Research division. "He was always enthusiastic about doing new things - with a sense of humor that never failed. He also had a profound commitment to industrial ecology and helped to create corporate grants at Lucent and at AT&T that engaged researchers around the world in industrial-ecology research."

His work was widely recognized through his election to membership in both the National Academy of Science and the National Academy of Engineering. He received numerous prizes and awards including the American Chemical Society Materials Chemistry Prize, the International Crystal Growth Prize, the Orton Award of the American Ceramic Society, the Sawyer Prize, and in 1989 the International Organization for Crystal Growth designated its prize for experimental crystal growth, the Laudise Prize.

Dr. Laudise served on numerous national advisory committees including the National Science Foundation, National Aeronautics and Space Administration, National Institute of Standards and Technology, and the President's Science Advisory Committee. He was editor of the *Journal of Materials Research* and was elected to the American Philosophical Society.

The Federation of Materials Societies recently announced that it will honor Laudise with its first Past Presidents Award for Excellence in Leadership in the Materials Professional Community.

*This notice was submitted by Robert P. Frankenthal.*



**Eugene Willihnganz**  
(1903-1998)

The Electrochemical Society and the Battery Division announce with regret the death of Dr. Eugene Willihnganz at the age of 95. Gene Willihnganz was a member of very long standing, and a former chairman of the Battery Division.

Dr. Willihnganz was an organizer of the Battery Division and was chairman in 1952-1954. He presided over several highly successful symposia on battery advances and problems, particularly concerning lead-acid batteries. As a member of the Board of Directors he took an active role in managing the affairs of the Society.

He was born in Beaver Dam, Wisconsin in 1903 and graduated from the University of Notre Dame where he studied organic chemistry and did some of the early work on synthetic rubber derived from acetylene. He also completed the course in Chemical Engineering, and graduated with an MS degree in 1925. After several years of industrial research dealing with dyestuffs and their intermediates for divisions of the then American Cyanamid Co., he returned to graduate school at The Pennsylvania State University and received his PhD in physical chemistry.

In his subsequent working career of over 30 years, he was mainly concerned with lead-acid batteries. He served as a research manager, research director, and consultant to three battery or battery material companies: the National Lead Co., Gould-National Batteries, and C & D Batteries Inc. Gene was well known for the design of a test cell for the measurement of electrical resistance of battery separators, which was published in 1948. This was universally referred to as the "Willihnganz Cell." On a practical basis, under his direction, the casting of large grids of Calcium-Lead alloy with excellent corrosion properties became commercially viable.

*This notice was submitted by Alvin J. Salkind, Director of the Battery Materials and Engineering Laboratory, Rutgers University, Piscataway, NJ.*

## In Memoriam

**Rudolf G. Frieser** (1920-1998), member since 1961, Electronics.

**William F. O'Connor** (d. 1998), member since 1934, High Temperature Materials.

**Carl J. Swartz** (1907-1998), member since 1943, Electrodeposition.

**Gordon A. Thomas** (1924-1998), member since 1957, Battery.

**Carl Thurmond** (1922-1998), member since 1961, Electronics.