

Subhash Singhal Receives Award



Dr. Subhash C. Singhal received the Edward Orton Jr. Award of the American Ceramic Society for 2001. As part of the Award, he presented the Orton Memorial Lecture, entitled "Ceramic Fuel Cells for Stationary, Mobile, and Military Applications" at the American Ceramic Society's Annual Meeting, Indianapolis, Indiana, April 2001.

Dr. Singhal is a Battelle Fellow and Director, Fuel Cells, Pacific Northwest National Laboratory (PNNL), Richland, Washington, where he provides senior technical, managerial, and commercialization leadership to the fuel cell program. He joined PNNL in April 2000 after having worked at Siemens Westinghouse Power Corporation for over 28 years.

Dr. Singhal is a Fellow of the American Ceramic Society as well as of The Electrochemical Society. ■



Photo by Douglas Lockard.

Gordon Moore Receives CHF's Othmer Gold Medal

The Chemical Heritage Foundation (CHF) presented the fifth annual Othmer Gold Medal to Dr. Gordon Moore at a recent luncheon in New York City. The Medal was established to recognize an "outstanding individual possessed of multiple talents and known for multiple achievements in such areas innovation, entrepreneurship, research, education, public understanding, legislation, or philanthropy."

DR. ARNOLD THACKRAY, (pictured above right), President of the Chemical Heritage Foundation, presented the Othmer Gold Medal to **DR. GORDON MOORE**.

Gordon Moore has been a member of ECS since 1957 (and now a member emeritus). Dr. Moore delivered the Plenary Lecture at the Society's spring 1997 meeting in Montréal. He was featured on the cover of the spring 1997 issue of *Interface*, only the second time an *Interface* cover featured an individual. (The first was with the premier issue, when Rudolph Marcus graced the cover just after winning the Nobel Prize, and hearing about it at the ECS meeting in Toronto.)

Dr. Moore co-founded Intel Corporation in July of 1968, serving as Executive Vice-President until 1975, when he became President and Chief Executive Officer. In April 1979, Moore became Chairman of the Board, and Chairman Emeritus in 1997. Moore has recently announced his full retirement from Intel.

Dr. Moore received his BS in chemistry from the University of California,

Berkeley; and a PhD in physics and chemistry from the California Institute of Technology. He joined Shockley Semiconductor in 1956, shortly after its founding. He left in 1957, and with Robert Noyce founded Fairchild Semiconductor. The first version of what became known as "Moore's Law"—that transistor counts would double every year—was introduced in 1965. (In 1975, the "Law" was changed to predict that chip power would double only every two years.) His tenure at Fairchild lasted until 1968; it was during this period that Fairchild produced the first commercial integrated circuit.

A long and distinguished career has brought Dr. Moore much recognition. He received the National Academy of Engineering's Founders Award and the 1990 National Medal of Technology. He is a Fellow of the IEEE, and chairman of the Board of Trustees of the California Institute of Technology, and received an honorary degree from Princeton University in 2000. Dr. Moore is heavily involved with Conservation International. In November 2000, he established the Gordon E. and Betty I. Moore Foundation to fund scientific, environmental, and educational ventures.

The Society extends its sincerest congratulations to Dr. Moore. ■

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Austin E. Hardy (1921-2001)

Austin E. Hardy, long-time ECS member, died earlier this year. He received his BS in chemistry from the University of New Hampshire and completed graduate course work in physics at Franklin and Marshall College. He joined the chemical and physical laboratory of the RCA Corp. in Lancaster, Pennsylvania in 1943 as a phosphor chemist. He worked initially on the development of zinc sulfide and zinc cadmium sulfide phosphors for radio display tubes. Later he designed and built recording spectro-radiometer and other calorimetric and photometric equipment. Technical papers on these subjects presented before the ECS Electronics Division earned him a Young Author's Award and the Turner Book Prize.

Following this period, he became active in phosphor screen deposition and was intimately involved in the development of screening techniques for black-and-white picture tubes, industrial cathode ray tubes, and color television picture tubes.

Hardy was elected secretary-treasurer of the ECS Electronics Division in 1959 and chairman in 1964. He was chairman of the EIA/JTC 6.3 subcommittee on phosphor screen characteristics for ten years and continued as RCA's permanent member until his retirement. He was the author or co-author of 15 technical papers and 7 patents. He was listed in "American Men of Science" and was a member of the Sigma Pi Sigma physics honorary society.

After his retirement in 1983, he continued to work for various companies, including RCA, on a number of projects. His work took him to Voronezh in the former Soviet Union, where he worked at the RCA-built color picture plant. He returned in 1988 to provide engineering assistance to the color television phosphor manufacturing operation. In 1988, Hardy was invited by the Chinese government for consulting at picture tube and phosphor plants in Shanghai, XianYang, and Beijing.

Hardy is survived by his wife and three children.

*This notice was contributed by
Martin R. Royce.*

Fielding Ogburn (1919-2001)

William Fielding Ogburn died April 8 in Rockville, Maryland at the age of 81. His long professional career started with working at the Museum of Science and Industry in Chicago in 1939. While in Chicago he attended the University and earned his BS in chemistry in 1941. From there he worked for the Dow Chemical Company in Michigan and Aemcco Chemicals in New York. From 1944-1946 he served in the U.S. Army and was stationed in Italy. In May 1946, Ogburn joined the National Institute of Standards and Technology as a research chemist. He was Chief of the Electrodeposition Group from 1971 to 1978. Ogburn retired in July 1981, and worked as a guest scientist until October 1991. During his career, he patented six inventions and wrote over 50 technical papers. He is survived by his wife, Patricia Daly Ogburn; two sons, Willard Patterson Ogburn and Allan Ogburn; and two granddaughters.

In Memoriam

John P. Carter (1930-2001), member since 1971, Corrosion.

Paul Croly (1917-2000), member since 1947, Electrodeposition.

Gordon C. Godejahn, Jr. (1928-2001), member since 1963, Electronics.