



W.R. Buessem Awards:

Mike S.H. Chu

2012 Buessem Award Recipient

Mike Chu grew up and received his elementary, high school, and college education in Taiwan. In 1968, he graduated from Cheng Kung University in Taiwan with a bachelor's degree in electrical engineering. In 1968–1969, he served in the Army as a math instructor. In 1969–1970, he worked as a full time teaching assistant at Chiao Tung University in Taiwan. In August 1970, he came to United States to start his graduate study at the Electrical Engineering Department of Marquette University in Milwaukee, Wisconsin. He obtained a M.S. degree in 1972 and a Ph.D. degree in 1976. His Ph.D. dissertation work involves studying the grain boundary effects of CaO stabilized ZrO₂ ceramic using impedance analysis technique.

After graduation from Marquette, he worked one year as a post-doc at Catholic University of America to study dielectric relaxation of cesium doped glass. In 1978, he joined Sprague Electric in Wichita Falls, TX as a senior materials engineer. He was responsible for developing high frequency chip capacitor formulation and for implementing high frequency chip capacitor test procedure. He joined Murata-Erie Corporation in 1980 as a senior scientist. He was responsible for developing high voltage disc capacitor and grain boundary layer chip capacitor formulations.

He then joined TAM Ceramics in 1983. At TAM, he held positions as senior scientist (1983–1985), R&D Manager, and Technical Manager (1985–1999). His major responsibilities included developing many commercially successful dielectric powder compositions for the multilayer capacitor industry, supervising lot-to-lot process control of dielectric

powder production, technical service/consultation to customers, new TAM production introduction/implementation, quality control documentations, and coordination of outside research programs. He also participated in contract negotiations and implementations for several turn-key multilayer capacitor factories in China during late 1980s.

He continued the same responsibility when TAM Ceramics was acquired by Ferro Electronic Systems in 1999 until 2009.

He rejoined TAM Ceramics in 2009 as R&D manager when TAM was separated from Ferro and became an independent company. Since then, he has been working on developing high temperature oxide thermoelectric materials and technology. The work has been supported by funding from NSF, DOE and NYSERDA.

Mike has authored or coauthored about 16 patents of dielectric compositions, and about 8 journal publications related to dielectric properties of BaTiO_3 . He also presented several papers at ACS meetings.

The Center for Dielectric Studies presented the Wilhelm R Buessem Award to Dr. Chu at the CDS Award Dinner on May 21, 2013.

