IN MEMORIAM
AL F. TASCH, JR.

Al Tasch was born in Taft, Texas, on May 12, 1941, and died in Austin, Texas, on November 30, 2004. His father was a well-respected doctor. Al F. Tasch received his B.S. degree in physics in 1963 from The University of Texas at Austin and his M.S. and Ph.D. degrees in physics in 1965 and 1969, respectively, from the University of Illinois, Urbana-Champaign. His thesis research in impurities in silicon was the pioneering work that led to the very widely known deep-level transient spectroscopy (DLTS) approach for characterizing impurities in semiconductors.

Professor Tasch was a recognized leader in the technologically important field of semiconductor devices and integrated circuits, and his consistently strong and broad record over more than thirty years was a standard of excellence in the U.S. semiconductor community. In 1969, he joined Texas Instruments, where his research helped lay the foundation for infrared detector development in the 1970s and 1980s. His work had a dramatic impact on metal oxide semiconductor (MOS) dynamic random access memories. He and his colleagues invented the self-aligned silicided MOS structure, which has become the standard transistor building block for submicron integrated circuit (IC) technology worldwide. These contributions and many others resulted in the awarding of over fifty patents worldwide. He joined Motorola in 1982 to start up a new MOS integrated circuit manufacturing facility. In 1984, he was promoted to director of the MOS technology development laboratory, and he was appointed vice president of the technical staff in 1985.

After many years of distinguished research and technical leadership in industry, Al joined The University of Texas in 1986 as the Cockrell Family Regents Chair in Engineering. He served as professor of electrical and computer engineering and as a research leader in the Microelectronics Research Center, where he continued his outstanding contributions to semiconductor materials and devices. Dr. Tasch's teaching and research interests were concentrated on silicon devices, materials, and fabrication for future generation integrated circuits. His work on computer modeling of microelectronic devices and research on low-temperature processing of semiconductors were invaluable to the field and helped to establish UT as a premier center for microelectronics. His simulation codes on ion implantation modeling are recognized worldwide and are used by over 1,000 individuals in industry and academia. He also gave generously of his time to University and community affairs, for example by playing a key role in bringing SEMATECH to Austin.

His distinction in his field was recognized by numerous honors, including election to the National Academy of Engineering in 1989, Fellow of the Institute of Electrical and Electronics Engineers, Inc. (IEEE), Texas Instruments Fellow, the J.J. Ebers Award from IEEE, the University Leadership Award from the Semiconductor Industry Association, and the Electronics Division Award from the Electrochemical Society. In 2000, he was awarded the prestigious Grove Award by IEEE for seminal contributions to semiconductor devices. He was elected as one of the Founding Members of the Texas Academy of Medicine, Engineering, and Science in 2003.

He published over 350 articles with his students, and he helped them find productive careers in the semiconductor industry. Al was for many years one of the most prolific researchers and influential teachers in the nation. In his honor, the Semiconductor Research Corporation and The University of Texas established fellowships in his name.
Al married Judie Tasch, and they had two sons, Edward and David. In retirement, Dr. Tasch was as active as ever. He consulted for various companies who actively sought out his expertise. He was a member of the Stonewall Chamber of Commerce. He and Judie loved to spend time at their farm in Stonewall, where they hosted numerous picnics over the years for University of Texas faculty, students, and friends. Those of us who knew him best would agree: he had a brilliant mind, and beneath a sometimes tough demeanor, he was a very warm and lovable human being.

This memorial resolution was prepared by a special committee consisting of Professors Sanjay Banerjee (chair), Joe Campbell, and Dean Ben Streetman.

Distributed to the dean of the College of Engineering, the executive vice president and provost, and the president on April 1, 2005. Copies are available on request from the Office of the General Faculty, FAC 22, F9500. This resolution is posted under "Memorials" at: http://www.utexas.edu/faculty/council/.