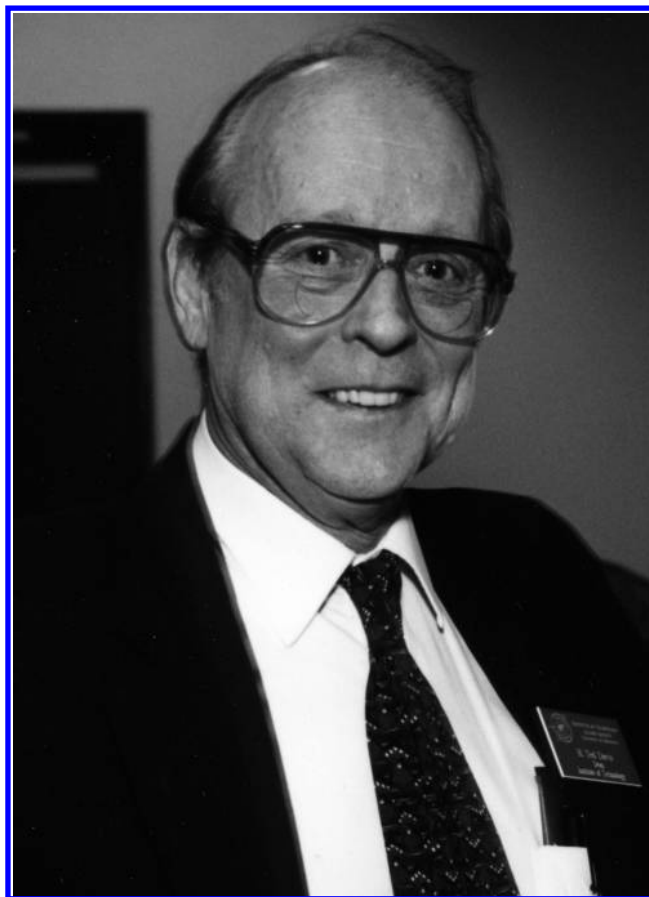


THE JOURNAL OF PHYSICAL CHEMISTRY

B

© Copyright 2009 by the American Chemical Society

VOLUME 113, NUMBER 42, OCTOBER 22, 2009



Preface to the H. Ted Davis Memorial Special Section

Howard Ted Davis passed away on May 17, 2009, at the age of 71. Ted spent his entire academic career at the University of Minnesota, beginning as Assistant Professor of Chemical Engineering in 1963, becoming Department Head in 1980, Dean of the Institute of Technology in 1995, and Director of the BioTechnology Institute in 2008. He was a member of the National Academy of Engineering, and was named a University of Minnesota Regents Professor in 1998. Ted had recently been inducted into the Minnesota Hall of Fame, an accolade honoring individuals of worldwide influence. He advised or coadvised over 80 graduate students, and authored over 400 papers and 2 books. Ted made significant research contributions in the areas of statistical mechanics, interfacial phenomena, and transport

in porous media—with a unique focus combining science and engineering. Of particular note are his contributions toward understanding the structure and dynamics of confined inhomogeneous fluids, and the thermodynamics of interfaces.

Ted's academic generosity knew no boundaries, and generations of students benefited from his thorough and self-less teachings. We were always amazed at the number of diverse problems he pursued. His knowledge of statistical mechanics was legendary, and all working with Ted quickly became aware of the beauty and power of this amazing discipline. Whether following his lectures, reading his notes (even brief discussions with Ted often resulted in a scribbled derivation placed in one's mail box), or catching him near an open blackboard, one was

always sure to receive an elegant explanation with important physical insight. Ted's academic philosophy is summed up by his firm belief to always pursue "the elegant solution"—advice that typically followed a student being confronted with the choice between a "quick and dirty" and a "thorough and general" approach. Ted firmly believed the time saved could never compensate the intellectual opportunity lost. From his earliest work, Ted emphasized the power of combining theory, simulation, and experiment. He keenly recognized the importance of appreciating these three classical approaches, and while practicing each may be difficult in our current age of ultraspecialization, those who studied under Ted were fortunate enough to be trained to at least *think* as do practitioners of each of these methods. Ted's teaching extended far beyond science and engineering: he was often approached by colleagues for professional and personal advice, and in this capacity was known as a generous source of valuable insight. His influence was aptly described at

his 65th birthday celebration at the University of Minnesota, where Chemical Engineering Department Head Frank Bates referred to him as "our model of excellence".

We will remember Ted's passion for scholarship, unending curiosity, and kind and generous spirit. He contributed so much to chemical engineering science, and to the careers of so many who practice it today. With this memorial special section, we remember and honor our dear friend, teacher, and mentor—and celebrate a life well lived.

K. Ganapathy Ayappa

Indian Institute of Science Bangalore

Paul R. Van Tassel

Yale University

JP907057N