

A Tribute to John M. Prausnitz

This third Founders Tribute of the Journal recognizes John M. Prausnitz, an exceptional scholar, educator, and intellectual leader in Chemical Engineering. Currently Professor of the Graduate School at the University of California, Berkeley, he is internationally renowned for developing the discipline of molecular thermodynamics. His connection of fundamental molecular theory to practical thermodynamic applications was integral to the profession's Twentieth Century paradigm shift from empiricism to engineering science. In addition to transforming core engineering knowledge and practice, John's writings and lectures extend to a holistic view of technology in society and science as a human enterprise. Finally, his personal interactions across generations and disciplines have inspired the personal and professional development of a vast community of students, coworkers, and colleagues. In myriad ways, John Prausnitz has influenced the contemporary foundation and functioning of Chemical Engineering and realms beyond.

John Prausnitz was born in Berlin and raised in Forest Hills, NY. His chemical engineering education began at Cornell University, leading to the BS ChE in 1950. After receiving an MS at the University of Rochester, John began PhD studies at Princeton University. His dissertation on liquid-phase turbulent mixing properties was supervised by R.H. Wilhelm. In 1955, he joined the small faculty of the Chemical Engineering Department in the College of Chemistry at UC Berkeley. Within a few years, he completely shifted his work from mixing to thermodynamics. For six decades, he has been central in establishing and elevating the eminence of the Department and College. Throughout his education and career, John has always had strong interests in literature, music, and philosophy.

John Prausnitz has contributed extensively to advancing the chemical and engineering sciences, focusing particularly on physical properties and fluid-phase equilibria, with applications to chemical and energy process design, interfaces, and biotechnology systems. He has authored/coauthored six books. "Molecular Thermodynamics of Fluid-Phase Equilibria," now in its Third Edition coauthored with R.N. Lichtenthaler and E.G. de Azevedo, has been translated and adopted worldwide as a graduate textbook and reference work. John has numerous publications on education and the intersection of technology and humanity. So far, he has produced over 780 papers in 156 journals and his works have more than 16,000 citations. In fact, John has been a prolific contributor to *AIChE Journal*. Four of the top five most-cited Journal articles were contributed by John and his coworkers.

John Prausnitz has received many honors. Most prominently, he was presented the US National Medal of Science in 2005. He has been elected to the National Academy of Sciences, National Academy of Engineering, and American Academy of Arts and Sciences. He has received multiple Society-wide awards from all of the relevant professional societies: American Institute of Chemical Engineers, American Chemical Society, American Society for Engineering Education, and International Union of Pure and Applied Chemistry. John has four honorary doctorates.

This tribute issue contains contributions from a coterie of John's former and current colleagues, students, academic offspring, collaborators, and other distinguished faculty from throughout the world. The breadth and depth of its topics reflects the extraordinary and enduring impact of John M. Prausnitz on the Chemical Engineering profession.

Please enjoy and find inspiration in this Tribute to Professor Prausnitz.

Yours sincerely,



Peter Cummings
Associate Editor, *AIChE Journal*
Professor of Chemical and Biomolecular
Engineering
John R. Hall Chair in Chemical Engineering
Vanderbilt University



John O'Connell
Professor Emeritus of Chemical
Engineering
University of Virginia



Michael P. Harold
Editor-in-Chief, *AIChE Journal*
Professor of Chemical and Biomolecular
Engineering
University of Houston