

**PROFESSOR JOHN M. PRAUSNITZ**  
**On the occasion of his 70th birthday**



This year is of great importance for the broad community of the chemical engineers and chemists who used the invaluable achievements of Thermodynamics, since 1999 marks the anniversary of the 70th birthday of Professor John M. Prausnitz, University of California at Berkeley.

Professor Prausnitz is regarded as the father of Molecular Thermodynamics, having played a crucial role in the continuous development of this field and contributed to its broad interdisciplinary nature.

The influence of Professor John M. Prausnitz to our Faculty has two directions. Firstly, his ingenious ability to present in an extraordinarily attractive manner the subject

matter in his numerous books was permanent inspiration for us to develop the curriculum in the field of Thermodynamics, over a longer period of time, at both undergraduate and graduate level at the University of Belgrade. The courses:

- Chemical Engineering Thermodynamics,
- Computer Calculation for Vapor-Liquid and Liquid-Liquid Equilibria,
- Molecular Thermodynamics of Fluid Phase Equilibria,
- Thermodynamics of Fluid Phase Equilibria and
- Equilibrium Properties of Fluid Systems,

were developed under the strong influence of his books: "Molecular Thermodynamics of Fluid Phase Equilibria" (1969, 1986), "Computer Calculations for Multicomponent Vapor-Liquid Equilibria" (1967), "Computer Calculations for High Pressure Vapor-Liquid Equilibria" (1968), "Computer Calculations for Multicomponent Vapor-Liquid and Liquid-Liquid Equilibria" (1980), "The Properties of Gases and Liquids" (1977, 1989), "Regular and Related Solutions" (1970).

These books have formed a crucial basis for numerous diploma works, as well as master and doctoral thesis, at the Faculty of Technology and Metallurgy of the University of Belgrade.

Secondly, an important field of thermodynamic investigation, dealing with various theories of polymer solutions (the Prigogine-Flory theory, the Chang free volume theory, the perturbed hard-chain equation), carried out in the Department of Chemical Engineering of our Faculty, was significantly supported by material kindly sent to us by Professor Prausnitz. This enabled a number of our research articles to appear in well known international journals. Some of these are mentioned here: *Chemie Ingenieur Technik* (1980), *Fluid Phase Equilibria* (1981), *Industrial and Engineering Chemistry Process Design and Development* (1985) and *Journal of Applied Polymer Science* (1984, 1990 and 1994). Numerous results were also presented at national and international conferences. It is also worth mentioning the series of our papers, based on the theoretical concepts which Professor Prausnitz developed and applied to polymer solutions. Up to now, this series consists of twelve parts published over a longer period of time (1984–1997), in the present journal.

The knowledge we gained by studying the scientific work of Professor Prausnitz enabled our activities in solving practical problems including analysis and design of equipment, as well as simulation of diverse processes in the oil and petrochemical industry.

We are convinced that Professor Prausnitz, with his great honor and authority, will continue to inspire others to reach higher levels of knowledge and achievement in their own fields.

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