

Scattering Methods for the Investigation of Polymers

Jaroslav Kahovec (symposium ed.)
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The 20th Discussion Conference on Scattering Methods for the Investigation of Polymers was organized as the 60th meeting in the series of the Prague Meetings on Macromolecules. The meeting was held under the auspices of IUPAC at the Institute of Macromolecular Chemistry, Academy of Sciences of the Czech Republic, from 9–12 July 2001.

The meeting aimed to provide a forum for scientists specializing in scattering methods, which are important tools for characterization of the structure and dynamics of polymers. Knowledge of the final structure and the structure evolution during the preparation and processing of polymeric materials is a prerequisite for understanding, predicting, and controlling their properties and functions. Rapid development of instrumentation for time-resolved scattering experiments has extended significantly the accessibility of such information.

The topics of the conference included various aspects of light, X-ray, and neutron scattering techniques, as well as applications of these methods to a variety of polymeric materials and systems. At the conference, 7 main lectures, 23 special lectures, and 41 posters were presented. The conference also included two interesting panel discussions organized and led by G. D. Wignall (USA), Progress in SANS Studies of Polymer Systems, and W. Burchard (Germany), Weighing Up New Possibilities of Scattering and Simulation Techniques for Determination of Structures and Chain Dynamics.

In this volume of *Macromolecular Symposia*, the papers based on the main lectures and special lectures are collected together with an article written by G. D. Wignall and S. King (UK) summarizing the main results of the panel discussion devoted to neutron scattering. In this paper, the present state of the art and prospects for future developments in the field are discussed and predictions made at the Neutron Scattering in the Nineties symposium held in the mid-80s are reviewed.



www.iupac.org/publications/macro/2002/190_preface.html

Acetonitrile Binary Systems

Valerii P. Sazonov, David G. Shaw, Nikolai V. Sazonov, Adam Skrzecz, and Nikolai I. Lisov
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The mutual solubilities and liquid-liquid equilibria of acetonitrile binary systems with different compounds are exhaustively and critically reviewed in this volume. The compounds include water, inorganic compounds, and a variety of organic compounds (hydrocarbons,

halogenated hydrocarbons, alcohols, carboxylic acids and esters, nitrogen, and sulfur compounds). A total of 353 systems reported in the primary literature through 2000 are compiled. For 25 systems sufficient data are available to allow critical evaluation. All data are expressed as mass and mole fractions as well as the originally reported units. Similar reviews of gas, liquid, and solid solubilities for other systems are published in the *Solubility Data Series*. This is the 78th volume of this series.



www.iupac.org/publications/sds/2002/78_abstract.html

Applications of Multiple Intelligences Theory to Chemistry Teaching and Learning

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There are two general views of intelligence—a view of intelligence as a trait, a more or less stable or “fixed” entity, or a view of intelligence as a quality that grows. Gardner’s theory of multiple intelligences is an example of the latter view of intelligence. This multiple intelli-

gences theory (MIT) was developed “as a contribution of psychology and, most especially, as a counterweight to the predominant notion of a single intelligence, that is putatively measured adequately by a single short answer instrument.” MIT assumes that intelligence is not a single fixed entity but is dynamic and multifaceted. It assumes each intelligence can be cultivated. It also assumes that all students have available, for stimulation, the entire array of human intelligences. This paper discusses the issues, implications, and applications of MIT in the context of chemistry teaching and learning.



www.iupac.org/publications/cei/vol3/0301x0an6.html