

Preface

The Fourteenth Symposium on Thermophysical Properties was held at the University of Colorado, Boulder, Colorado, U.S.A., June 25–30, 2000. The Symposium was organized by the Standing Committee on Thermophysical Properties of the Heat Transfer Division of the American Society of Mechanical Engineers and was sponsored by the Physical and Chemical Properties Division of the National Institute of Standards and Technology.

The Symposium was the fourteenth in the well-established series of conferences held roughly every 3 years since 1959. It brought together leading international experts presenting papers on state-of-the-art research associated with the theoretical, experimental, and applied aspects of the thermophysical properties of gases, liquids, and solids.

Studies of the thermodynamic and transport properties of fluids and solids were broadly represented. In areas of great scientific and technological interest, experts were asked to organize special sessions, to propose key invited speakers, to encourage presentation of contributed papers, and to organize the review process for contributors in their respective areas. Special sessions for the Fourteenth Symposium covered the following topics: acoustic, optical, photothermal, and subsecond techniques of measuring thermophysical properties; materials of strong technological interest, namely, molten materials, natural gas, thin films, refrigerants, polymer solutions, aqueous systems, alternative solvents, and supercritical fluids; properties for chemical and metallurgical process design and environmental applications; fundamental topics such as molecular simulation of fluid behavior, critical behavior, properties in low gravity, optical and thermal radiative properties of materials, shear effects on property measurement, structure and behavior of complex fluid systems, and wetting and interfaces; and property data and correlations, including demonstrations of computerized databases. A special session was organized in honor of the Van der Waals Laboratory of the University of Amsterdam, whose history spans the 100 years of the 20th century. The Fourteenth Symposium featured the presentation of the Yeram S. Touloukian Award by the ASME Heat Transfer Division to Akira Nagashima, Keio University, Tokyo, Japan.

The Fourteenth Symposium had an attendance of more than 500 participants from more than 40 countries. More than 500 papers were presented; over half of them were from countries outside the United States, which reflects the truly international character of the symposium.

The Proceedings of the Symposium are being published as special issues of this journal, *Fluid Phase Equilibria*, and the *Journal of Chemical and Engineering Data*. This issue is the first in the series for the *International Journal of Thermophysics*; other papers presented at the Symposium will appear in subsequent issues. Selection of papers for publication is based on established journal policies of favorable independent reviews by referees. Approximately 320 manuscripts were submitted for publication in the Proceedings. A preprint volume of all manuscripts was prepared on CD-ROM and distributed to participants at the conference. Information on the Fourteenth Symposium is available at the Symposium website, <http://www.symp14.nist.gov/>.

It is a pleasure to acknowledge the expertise and dedication of the many individuals who contributed to the successful organization of the Symposium and to the preparation of the Proceedings. Among those are the authors and invited speakers, the chairs and organizers of the special and regular sessions (special session organizers listed on previous page), the referees of the papers, and the members of the Standing Committee on Thermophysical Properties of the ASME Heat Transfer Division. We acknowledge the support of the Physical and Chemical Properties Division of the National Institute of Standards and Technology. Special thanks are due Becky Stevenson, the Symposium Assistant, and Gary Hardin, the Symposium Webmaster and Editor of the CD-ROM volume, for their expertise, dedication, and energetic efforts, which played major roles in the success of the conference.

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Chairs of the 14th Symposium on Thermophysical Properties