

## **Introduction**

A Japan–United States Joint Seminar on Thermophysical Properties was held on October 24–26, 1983, in Tokyo, under the sponsorship of the Japan Society for the Promotion of Science and the United States National Science Foundation. The seminar brought together experts in thermophysical properties research from the two countries for the purpose of exchanging information, understanding research approaches and thrusts, and enhancing future cooperation in research and applications. The seminar organizers were K. Katayama (Tokyo Institute of Technology), I. Tanasawa (University of Tokyo), A. Cezairliyan (U.S. National Bureau of Standards), and J. V. Sengers (University of Maryland).

During the three-day seminar, 29 review papers, 21 from Japan and 8 from the United States, were presented. The papers covered a wide range of topics related to thermophysical properties of solids and fluids, and were grouped into six sessions. The papers in Session 1 dealt with the current status of thermophysical properties research in Japan and in the United States as regards to fluids, solids, and synthetic fuels. The importance of thermophysical properties data in both scientific and technological applications was stressed. The papers in Session 2 dealt with several transient techniques (resistive, laser pulse, stepwise heating, etc.) for the measurement of properties of solids, and also discussed the properties of nuclear fuel and reactor materials. Session 3 was concerned with properties of fluids with particular emphasis placed on the critical region and on measurements at high pressures. Session 4 covered high temperature liquids including properties of molten salts and measurements by the levitation technique. Session 5 dealt with several diverse areas including need for thermophysical properties in heat transfer research, status of research in radiative properties, properties of dispersed media, properties of ice and snow, and properties of biological materials. Session 6 highlighted several topics on reference materials, and collection and dissemination of thermophysical properties data.

In addition to immediate technical benefits, the joint seminar established a close relationship between the researchers from Japan and the United States and created channels for future contacts and cooperation

between the two countries. It is hoped that this cooperation will grow through special meetings, joint seminars, international conferences, publications, and other related activities in the thermophysical properties field.

In this special issue of the *International Journal of Thermophysics*, seven of the papers presented by the Japanese researchers at the joint seminar are published. Some other papers, including contributions from the participants from the United States, will be published in the next issue of the *Journal*. On behalf of the *Journal*, we acknowledge the excellent contributions by all the authors. We also wish to extend our appreciation to N. Seki of Hokkaido University for his invaluable help in coordinating the editing and submission of the papers from our colleagues in Japan.

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