

Announcement

FIFTEENTH SYMPOSIUM ON THERMOPHYSICAL PROPERTIES

**National Institute of Standards and Technology
Boulder, Colorado, U.S.A.**

June 22–27, 2003

This is the Fifteenth Symposium of the well-established series of conferences on thermophysical properties. The Symposium is concerned with theoretical, experimental, simulation, and applied aspects of the thermophysical properties of gases, liquids, and solids, including biological systems. Appropriate topics are:

- (1) **Thermodynamic Properties**, including equation of state, phase equilibria, p - v - T behavior, heat capacity, enthalpy, thermal expansion, sound speed, and critical phenomena.
- (2) **Transport Properties**, including thermal and electrical conductivity, viscosity, mass diffusion, thermal diffusion, non-Newtonian behavior, and thermal, thermoacoustic, and other diffusion waves.
- (3) **Optical and Thermal Radiative Properties**, including dielectric constant, refractive index, emissivity, reflectivity, and absorptivity.
- (4) **Interfacial Properties**, including solid–solid interfaces, surface tension, interfacial profiles, interfacial transport, and wetting.
- (5) **Data Correlation**, including data evaluation and prediction, standard reference data, databases, and storage and retrieval of thermophysical-property data.

In addition to more general sessions on *Experimental Techniques* and the *Theory and Modeling of Thermophysical Properties for Both Solids and Fluids*, SPECIAL FOCUS AREAS related to properties to be emphasized at the Symposium are:

- Biothermophotonic Diagnostics and Imaging
- Databases and Data Correlation
- Ionic Fluids and Other Solvents
- Inverse Problems in Thermophysics
- Molecular Simulation
- Non-Destructive Evaluation with Thermophysics
- Novel Instrumentation and Measurement Techniques
- Optical and Thermal Radiative Properties of Materials
- Phase Transitions/Metastable Fluids/Critical Phenomena
- Phenomena at Short Time/Length Scales, including Nano-Scale Materials and Subsecond Thermophysics
- Photothermal and Photoacoustic Techniques for Property Measurements
- Properties at Extreme Conditions, including in Low Gravity
- Properties for Chemical Process Design
- Properties for Environmental Applications
- Properties for Metallurgical Process Design
- Properties of Aqueous Systems
- Properties in Complex Systems, including Mesoscale Phenomena and Polymeric Systems
- Properties of Fuels, including Natural Gas Systems
- Properties of Working Fluids, including Refrigerants
- Thermophysical Properties of Biomaterials
- Thermophysical Properties of Thin Films and Interfaces

Abstracts of 200–300 words must be submitted by **December 6, 2002**. The abstracts should be submitted through the Symposium web page at <http://symp15.nist.gov>; further details will be posted at this site as they become available.

The content of the abstracts will be the basis for acceptance of papers for presentation at the Symposium.

It is anticipated that Poster Sessions may be held as part of the Fifteenth Symposium on Thermophysical Properties in order to limit the numbers of parallel sessions. Posters and oral presentations will receive equal recognition as Symposium contributions. Prospective authors will be asked to indicate whether a poster presentation or an oral presentation is preferred. The organizers will attempt to honor requests for each type of presentation, although assignment of sessions may necessitate changes. Information on this subject will be included in the acceptance letters to be sent in early 2003.

Manuscripts describing all work presented at the Symposium are encouraged, but not required. Manuscripts must be received by **April 18, 2003**; electronic submission of manuscripts will be mandatory. A preprint volume on CD-ROM will be available at the Symposium. The papers will be reviewed, and those accepted will be published in special proceedings issues of the *International Journal of Thermophysics* and other journals.

For further information, please visit the Symposium web site:

<http://www.symp15.nist.gov>

or contact the organizers at symp15@boulder.nist.gov

All technical sessions will be held at the University of Colorado, Boulder, Colorado, U.S.A. The Symposium is organized by the National Institute of Standards and Technology and the Committee on Thermophysical Properties of the Heat Transfer Division, American Society of Mechanical Engineers. The co-chairs of the Symposium are:

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