

Preface

The 20th International Conference on Chemical Thermodynamics (ICCT 2008) was held in Warsaw, Poland, 3–8 August 2008. It was organized jointly by the Institute of Physical Chemistry of the Polish Academy of Science, both Faculties of Chemistry of the Warsaw University of Technology and the Warsaw University, the Polish Chemical Society, and under the auspices of the International Association of Chemical Thermodynamics (IACT). This conference was significant in a line of traditional meetings gathering biennially chemical thermodynamists from all over the world. Almost 300 participants from 39 countries presented 153 oral presentations and 174 posters, among the former ones 12 plenary and 27 invited lectures were given by distinguished researchers.

The culminating event was the Rossini lecture given by Prof. Jürgen Gmehling from the University of Oldenburg in Germany, entitled “Present status and potential of group contribution methods for process development”. Prof. Gmehling was awarded the prestigious Frederick D. Rossini Award, which has been given biennially to contemporary chemical thermodynamics for an outstanding contribution.

Five 2008 IACT Junior Awards were awarded to young scientists for notable achievements presented during the conference in the form of an oral communication.

The conference program was grouped into the following symposia:

- Molecular simulations of fluid and statistical thermodynamics
- Phase equilibria, supercritical fluids, and separation techniques
- Electrolyte solutions and non-electrolyte mixtures including reactive chemical systems
- Thermodynamics and properties in the biological, medical, pharmaceutical, agricultural, and food sectors
- Nanosystems, nanodevices, and advanced materials
- Thermochemistry, calorimetry, and molecular energetics
- Ionic liquids
- Surface and colloid chemistry
- Industrial thermodynamics and databases
- Thermodynamics frontiers and education
- Modulated and oscillation temperature techniques
- Environmental thermodynamics

This issue of *Pure and Applied Chemistry* presents 16 papers selected from the plenary and invited lectures delivered at ICCT 2008 with an emphasis on industrial thermodynamics and thermochemistry. We hope that this selection will provide insight into the scientific program of the conference.

The 21st International Conference on Chemical Thermodynamics will be held in Tsukuba, Japan, 1–6 August 2010.

Tadeusz Hofman
Conference Editor