**The International Association for Transport Properties**

- **The Aims**

The International Association for Transport Properties (IATP) is a non-profit grouping of scientists devoted to the advancement of the transport properties of materials. In particular, the association is engaged in the preparation of representations of the transport properties that are of value to engineering process design, and to the description of natural processes in the environment where international collaboration and agreement is specially significant. These developments will be carried out in the context of the underlying science and with the intention of improving understanding.

IATP was formerly known as the Subcommittee on Transport Properties of the International Union of Pure and Applied Chemistry (1981 - 2001).

Further info at : http://transp.eng.auth.gr

2001 - 2004 Chairman : Professor W.A. Wakeham

- **List of Scientific Meetings**

1. 2001 Chalkidiki, Greece
2. 2002 Imperial College, London, U.K.
3. 2003 Boulder, Colorado, U.S.A.
4. 2004 Pau, France

- **Books Published (as STP/IUPAC)**

1. *Experimental Thermodynamics. Vol. III. Measurement of the Transport Properties of Fluids.*
   Eds. A. Nagashima, J.V. Sengers and W.A. Wakeham.
   Blackwell Scientific Publications (1991).
2. *Transport Properties of Fluids. Their Correlation, Prediction and Estimation.*
   Eds. J.H. Dymond, J. Millat and C.A. Nieto de Castro.
   Cambridge University Press (1996).

# 5th

## Meeting of the International Association for Transport Properties

(former Subcommittee on Transport Properties of IUPAC Commission I.2: Thermodynamics)

September 9th, 2005

Faculty of Elektronics and Informatics
Slovak Technical University
Bratislava, Slovakia

## *Programme*

Local Organising Committee
Prof. Libor Vozar (vozar@nr.sanet.sk)

- All presentations are informal and are followed by a discussion period.

## Friday, 9th September 2005

09:00 Opening Remarks.
*W.A. Wakeham (UK).*

### Scientific Session

9:10 Thermal Conductivity of Molten Metals.
*W.A. Wakeham and Jarek Bilek (UK)*

9:30 Transient Hot-Bridge (THB): Uncertainty Assessment
*U. Hammerschmidt, V. Meier, R. Model (Germany)*

9:50 New Results on the Thermal Conductivity of Dry Air
*S.G.S. Beirγo, A.P.C. Ribeiro, and C.A. Nieto de Castro (Portugal)*

10:10 Molecular Structural Dependence of some Lubricating Properties of Pentaerythritol Esters
*A.S. Pensado, M.J. P. Comuñas, L. Lugo, and J. Fernandez (Spain)*

10:30 Coffee

11:00 High Pressure Viscosities, Conductivities, and Ionic Diffusion Coefficients for Liquid Butylmethylimidazolium Salts
*K.R. Harris, M Kanakubo, L.A. Woolf (Australia)*

11:20 On the viscosity of HFC liquid mixtures
*H.M.N.T. Avelino, J.M.N.A. Fareleira, C.M.B.P. Oliveira (Portugal)*

11:40 Viscous Properties of Ferrofluids
*S. Will, J. Patzke, and B. Rathke (Germany)*

12:00 Viscosity and Surface Tension of High-Viscosity Fluids from Surface Light Scattering (SLS)
*A.P. Froeba and A. Leipertz (Germany)*

12:20 Flow properties and behaviour of fresh concretes under pressure
*K. Yucel (Turkey)*

12:40 Discussion

13:00 Lunch.

### Business Session

16:00 Announcements.

- Concluded Collaborative Projects

  1. Recommended Values of the Viscosity of Molten Iron and Aluminium
     *M.J. Assael (Greece), W.A. Wakeham, J. Redgrove, P. Quested, K. Mills (UK), I. Egry (Germany), A. Nagashima, Y. Sato (Japan), M. Bannish (USA)*
     *Submitted to Journal of Physical and Chemical Reference Data*.

- Continuing Collaborative Projects

  2. Viscosity and Thermal Conductivity of Water & Steam
     *M.J. Assael (Greece), E. Vogel, J. Millat (Germany), A. Nagashima (Japan), D. Friend, J.V. Sengers (USA)*

  3. Investigation of a New High-Viscosity Standard
     *J.M.N.A. Fareleira, C.M.B.P. Oliveira (Portugal), M.J. Assael (Greece), A. Leipertz, H. Bauer (Germany), A. Nagashima (Japan)*

  4. On the Book on the Properties of Water, Air and Sea Water
     *A. Nagashima (Japan), M.J. Assael (Greece), J. Millat (Germany).*

  5. Feasibility Study on Properties of Ionic Fluids
     *E. Vogel (Germany), K. Marsh (New Zealand), A. Padua (France), J.M.N.A. Fareleira (Portugal)*

  6. Viscosity of $D_2O$
     *M.J. Assael (Greece), J. Millat (Germany), A. Nagashima (Japan), D. Friend, J.V. Sengers (USA)*

  7. Preliminary Investigation for Recommended Values for Viscosity and Density of Molten Metals.
     *M.J. Assael (Greece), Y. Sato (Japan)*

- Future Collaborative Projects: Proposals.
- Membership.
- Future Meetings.

Adjourn