- **IATP Executive**

1. Professor William A. Wakeham
2. Professor Marc J. Assael
3. Dr. Anthony Goodwin
4. Professor Alfred Leipertz
5. Professor Akira Nagashima
6. Professor Carlos A. Nieto de Castro
7. Professor Jan V. Sengers

- **IATP Members**

1. Professor Mikhail A. Anisimov
2. Dr. Scott Bair
3. Dr. Michael Bannish
4. Dr. Antoine Baylaucq
5. Dr. Robert F. Berg
6. Dr. Eckard Bich
7. Professor Christian Boned
8. Professor Fernando Caetano
9. Dr. John H. Dymond
10. Professor Joao M.N.A. Fareleira
11. Professor Josefa Fernandez
12. Professor Andreas Fröba
13. Dr. Peter Gaal
14. Dr. Guillaume Galliero
15. Dr. Ulf Hammerschmidt
16. Professor Ken R. Harris
17. Dr. Robert Hellmann
18. Dr. Marcia A. Huber
19. Dr. Arno Laesecke
20. Professor Maria José V. Lourenço
21. Dr. Kenneth N. Marsh
22. Dr. Jürgen Millat
23. Professor Yuji Nagasaka
24. Professor Carla Oliveira
25. Dr. Agilio A.H. Padua
26. Dr. Richard A. Perkins
27. Professor Sergio E. Quinones-Cisneros
28. Dr. Bernd Rathke
29. Dr. Michael H. Rausch
30. Dr. Nicolas Riesco
31. Dr. Fernando J.V. Santos
32. Professor Yusuro Sato
33. Dr. Daniela Stroe
34. Professor J.P. Martin Trusler
35. Professor Velisa Vesovic
36. Professor Dr. Eckhard Vogel
37. Professor Libor Vozar
38. Professor Stephan Will
39. Professor Jochen Winkelmann
40. Professor Jiangtao Wu
41. Dr. Kemal Tusat Yucel

## 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.cheng.auth.gr

2001 - 2013 Chairman: Professor Sir W. A. Wakeham
Secretary: Professor M. J. Assael

- **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 |
| 5. | 2005 | Bratislava, Slovakia |
| 6. | 2006 | Boulder, Colorado, U.S.A. |
| 7. | 2007 | Istanbul, Turkey |
| 8. | 2008 | Pau, France |
| 9. | 2009 | Boulder, Colorado, U.S.A. |
| 10. | 2010 | Santiago de Compostela, Spain |
| 11. | 2011 | Thessaloniki, Greece |
| 12. | 2012 | Boulder, Colorado, U.S.A. |

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

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

# 13th

# Meeting of the International Association for Transport Properties

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

July 6th, 2013

Gästehaus der Universität Bremen
Auf dem Teerhof 58, 28199 Bremen, Germany

## *Program*

Local Organising Committee

Dr. Bernd Rathke (brathke@uni-bremen.de)

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

## Friday July 5th, 2013

18:00 Meet at the lobby of hotel IBIS, walk to City Hall
19:00 Meet at "Roland" statue, in front of City Hall
19:30 Dinner

## Saturday July 6th, 2013

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

### Scientific Session A. Experimental

09:10 Simultaneous Determination of Mutual and Thermal Diffusivity in Liquids with Dissolved Gases by Dynamic Light Scattering (DLS)
*A. Heller, M. H. Rausch, A.P. Fröba (Germany).*

09:30 Accurate Determination of Binary Diffusion Coefficients for Gas Mixtures Using a Loschmidt Cell Combined with Holographic Interferometry
*T. Kugler, M.H. Rausch, A.P. Fröba (Germany).*

09:50 Viscosity Measurements on Solutions of Ionic Liquids in the vicinity of the Upper Critical Solution Point
*D. Saracsan, V. Vale, A. Butka, J. Koeser, A. Elshwishin, W. Schröer (Germany).*

10:10 Measuring the Viscosity of High-Viscosity Liquids
*S.K. Mylona, M.J. Assael (Greece).*

10:30 Portable Transient-Hot Wire Instrument for Solids
*S. Tsiglifisi, K. Antoniadis, S.K Mylona, J.A.M. Assael, M.J. Assael (Greece), J.T. Wu (P.R. China)*

10:50 Coffee

### Scientific Session B. Theoretical

11:10 The General Phase Behavior of $C_n$mim$NTf_2$ / *n*-Alkylalcohol Systems
*X. Shao, W. Schröer, B. Rathke (Germany).*

11:30 The Viscosity of Alkane Mixtures: Predictions Using the VW Method and its Use in Data Assessment
*N. Riesco, V. Vesovic (U.K.).*

11:50 On the Diffusion of Particles under Confinement of a Porous Glass
*B. Over, B. Rathke, S. Will (Germany).*

12:10 Calculation of the Transport Properties of a Dilute Gas Consisting of Lennard-Jones Chains
*R. Hellmann (Germany), N. Riesco, V. Vesovic (U.K.).*

12:30 Recent developments and applications of the kinetic theory of dilute gas mixtures
*E. Bich, R. Hellmann, B. Jäger (Germany).*

12:50 Lunch

### Scientific Session C.

14:20 Ethane: a Viscosity Surface Correlation Convenient for Engineers
*E. Vogel, S. Herrmann (Germany).*

14:40 Reference Correlation of the Thermal Conductivity and Viscosity of *n*-Hexane
*S.K. Mylona, E. Michailidou, M.J. Assael (Greece), M. Huber, R. Perkins (U.S.A.).*

15:00 The Frits-Riddle - The Solution
*U. Hammerschmidt (Germany)*

### Business Session.

15:20 Announcements.

- Projects Concluded
  1. Density and viscosity of liquid metal eutectics (Al+Sii, Pb+Bi, Pb+Sn).
     *M.J. Assael, I.J. Armyra (Greece), W.A. Wakeham (UK), S. Stankus (Russia), J. Brillo, A Thess (Germany), J.T. Wu (P.R. China), E. Kaschnitz (Austria), M. Banish (USA)*.
     Paper published in,
     *J. Phys. Chem. Ref. Data,* **41**: 033103 (2012)
- Continuing Collaborative Projects
  2. Reference correlations for the viscosity and thermal conductivity of fluids over extended temperature and pressure ranges.
     *S.K. Mylona, E.K. Michailidou, M.J. Assael (Greece), M.L. Huber, R.A. Perkins (USA)*
  3. High-temperature, high-pressure viscosity standards.
     *J.M.N.A. Fareleira, F. Caetano (Portugal), W. A. Wakeham, J.P.M. Trusler (UK), A.P. Froba, A. Leipertz, B. Rathke (Germany), K. Harris (Australia), A.R.H. Goodwin, A. Laesecke (USA), J. Fernandez (Spain), K. Schmidt (Canada), Chr. Boned (France)*
  4. Three new volumes on experimental thermodynamics series published under the auspices of IUPAC.
     *W.A. Wakeham - Coordinator, V. Vesovic (UK), A. Goodwin, M. Huber, J. Sengers (USA), M.J. Assael (Greece)*
  5. Round Robin project on ionic liquids viscosity, and thermal conductivity measurements.
     *J.M.N.A. Fareleira, C.A. Nieto de Castro (Portugal), A. Leipertz, A. Fröba, U. Hammerschmidt, B. Rathke (Germany), J. Fernandez (Spain), R. Perkins (USA), and K. Harris (Australia).*
  6. Mexico research perspectives in the rheology of heavy oils.
     *S.E. Quiñones-Cisneros (Mexico)*

16:30 Coffee

- Future Collaborative Projects: Proposals
- Membership
- Future Meetings

17:00 Meeting Adjourn

17:40 Meetings of Project Committees

20:00 Dinner

## Sunday July 7th, 2013

Walk through city center and/or city hall, or boat trip on the river Weser. The museum of art, Kunsthalle Bremen, is also close by.