

Minutes of the Joint ASME/AIChE Joint Committee on Thermophysical Properties

Sunday, 30 July 2006

3:00 – 4:30 p.m.

Room 4 – Coors Events Conference Center

University of Colorado, Boulder, CO

Members Present: Dan Friend, Jan Sengers, Clare McCabe, Ilja Siepmann, Steve Penoncello, John Kincaid, Mickey Haynes, Zhoumin Zhang, Richard Rowley, Marcia Huber, Jim Ely, Paul Mathias, Jim Holste, Richard Jacobsen, Rajiv Singh, Neil Wright

1. Neil called the meeting to order at 3:05 p.m.
2. Minutes of the November 11, 2005 will be posted on the K-7 website and committee members will be asked to approve these via email.
3. Dan Friend and Mickey Haynes presented an update of the status of the 16th Symposium. A copy of Dan's PowerPoint slides is attached which summarizes the current status of the Symposium.
4. Dick Jacobsen gave a summary of the Touloukian Award status. A single award winner has been selected and will be announced at the opening plenary session. The award winner is in the fluids area. There were no nominees from the solids area.
5. Zhoumin Zhang summarized the status of the K-7 sponsored Mini-symposium and sessions at the 2006 IMECE. Five sessions are being planned (a review of the 16th Symposium, three standup paper sessions, and poster presentations). The 2006 IMECE is in Chicago from November 5 – 10. The heat transfer sessions are earlier in the week.
6. Neil formally welcomed the three newest K-7 members, Marcia Huber, Clare McCabe, and Richard Rowley.
7. Neil presented the nomination of Samuel Graham (c.v. was circulated previously) It was moved by Dick Jacobsen, seconded by Jim Holste to approve this nomination. The motion passed unanimously. Samuel will be invited to the Friday meeting.
8. Neil reviewed important issues that the committee will address at the Friday meeting.
 - a. Elections for the Touloukian Award Committee – Andreas Mandelis is at the end of his second term this year.
 - b. Touloukian Rules of Award should be reviewed on the Friday meeting.
 - c. Elections for officers of the K-7 Joint Committee. Current officers are Neil Wright (Chair), Rajiv Singh (Vice-Chair), Steve Penoncello (Secretary/Webmaster).
 - d. Jan mentioned that he would be interested in having someone else take over the AIChE liaison duties. Several committee members attend the annual AIChE meeting, so there are some potential liaisons.

9. Neil presented a proposal from the IIR, Commission B1 that proposes a joint conference between the 17th Symposium and the IIR. Mark McLinden will be invited to the Friday meeting to discuss this proposal with the committee
10. There was no new business.
11. The meeting adjourned at 4:09 p.m.

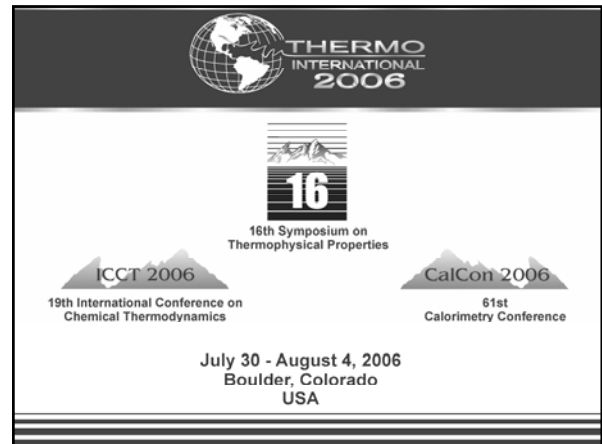
Respectfully submitted,
Steve Penoncello, Secretary

ASME/AIChE Joint Committee on Thermophysical Properties

Status of the 16th Symposium

D.G. Friend
W.M. Haynes

Sunday, 30 July 2006



Presentation Summary (1)

- About 1000 presentations
- About 750 individual speakers from 54 countries
- About 2000 authors from 62 countries

Presentation Summary

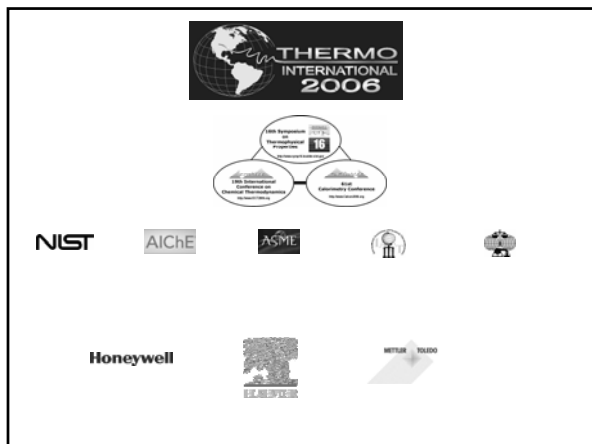
- 1104 Presentations in DB
- 75 Duplicates/Withdrawn/Rejected
- 17 Plenary, 2 Exhibition, 7 TRC
- 14 Software Demos
- 46 Late Withdrawals
- 418 Posters
- 182 Manuscripts
- 145 Sessions

Registration Summary

- 635 As of 7/28

Program Revisions

- Copies of revision document will be distributed at registration.
- Contains withdrawals (46), time changes, chair changes.
- Will be updated daily—in conference rooms and at Kitteridge



Session Summary

- **16th SYMPOSIUM SESSIONS**
- **Fluid Property Measurements** Rakesh Srivastava, *Dow*
- **Instrumentation and Measurement Techniques** Tom Bruno, *NIST*
- **Inverse Problems and Non-Destructive Evaluation** Roberto Li Voi, *University of Rome*
- **Optical and Thermal Radiative Properties of Materials** Zhuomin Zhang, *Georgia Tech*
- **Photoacoustic and Photoacoustic Techniques** Gerald Dabolt, *Brown University*
- **Properties at the Nanoscale** Andreas Mandelis, *University of Toronto*
- **Properties for Metallurgical Process Design** Pamela Norris, *University of Virginia*
- **Properties for Sustainable Development** Robert Stevens, *Rochester Inst. Tech.*
- **Properties of Aqueous Systems** Tony Overfelt, *Auburn University*
- **Properties of Fuels, Including Natural Gas Systems** Ivan Egly, *German Aerospace Center*
- **Properties of Mesoscopic, Self-Assembled, and Strongly Fluctuating Systems** Anthony Rutz, *INL*
- **Properties of Polymers** Paul Wichtlitz, *INL*
- **Properties of Solids, Including Refrigerants** Allan Harvey, *NIST*
- **Property Needs in Biothermophotonics** Ilya Sepmann, *University of Minnesota*
- **Subsecond Thermophysics** Jim Holste, *Texas A&M University*
- **Theory of Thermophysical Properties, Including Statistical Mechanics** Ken Hall, *Texas A&M University*
- **Wetting, Interfaces, and Membranes** Mikhail Anisimov, *University of Maryland*
- **Wetting, Interfaces, and Membranes** Chad Snyder, *NIST*
- **Wetting, Interfaces, and Membranes** Atangji Karim, *NIST*
- **Wetting, Interfaces, and Membranes** Andreas Mandelis, *University of Toronto*
- **Wetting, Interfaces, and Membranes** Mark McLinden, *NIST*
- **Wetting, Interfaces, and Membranes** Rajiv Singh, *Honeywell*
- **Wetting, Interfaces, and Membranes** Andreas Mandelis, *University of Toronto*
- **Wetting, Interfaces, and Membranes** J.J. Avarado-Gil, *CINVESTAV IPN*
- **Wetting, Interfaces, and Membranes** Gernot Pottlacher, *TU-Graz*
- **Wetting, Interfaces, and Membranes** John Kincaid, *SUNY - Stony Brook*
- **Wetting, Interfaces, and Membranes** Marcus Müller, *Georg-August-University*

Session Summary (2)

- **19th ICCT/61st CALCON SESSIONS**
- **Colloid and Interface Science** Margarida Bastos, *University of Porto*
- **Electrolyte and Non-Electrolyte Solution Thermodynamics** Watson Loh, *State University of Campinas*
- **New Experimental Techniques** Jean-Pierre E. Grolier, *Blaise Pascal University*
- **New Materials** Emmerich Wilhelm, *University of Vienna*
- **Phase Equilibrium, Supercritical Fluids, and Separation Technologies** Tooru Akae, *Tokyo Inst. Technol.*
- **Thermochemistry and Molecular Energetics** Anthony R.H. Goodwin, *Schlumberger*
- **Thermodynamic Frontiers and Education** Ramón Burriel, *University of Zaragoza*
- **JOINT SESSIONS** Rüdiger N. Lichtenthaler, *University of Heidelberg*
- **Ionic Liquids** Theodor W. De Loos, *Delft University of Technol.*
- **Molecular Modeling, Including Simulation** Ulrich Dettler, *University Cologne*
- **Properties and Processes for a Hydrogen-based Economy** Juliana Boerio-Goates, *Brigham Young University*
- **Databases, Data Systems, Software Applications and Correlations** Manuel A.V. Ribeiro da Silva, *University of Porto*
- **Thermodynamics and Properties in the Biological, Medical, Pharmaceutical, Agricultural, and Food Sectors** Trevor M. Letcher, *University of Natal*
- **Posters** Ron D. Weir, *Royal Military College*
- **Software Demonstrations** Andreas Heintz, *University of Rostock*
- **Exhibits** Ken Marsh, *University of Canterbury*
- **Exhibits** Ray Mountain, *NIST*
- **Exhibits** Susumu Okazaki, *Inst. Molecular Science*
- **Exhibits** Richard Jacobsen, *University of Idaho*
- **Exhibits** Marcia Huber, *NIST*
- **Exhibits** Andy Johns, *Software Products TUV NEL*
- **Exhibits** Mike Henzl, *University of Missouri*
- **Exhibits** David Remeta, *Rutgers University*
- **Exhibits** Neil Wright, *Michigan State University*
- **Exhibits** Joseph Magee, *NIST*
- **Exhibits** Jason Wieggen, *NIST*
- **Exhibits** Marcia Huber, *NIST*
- **Exhibits** Rob Chirico, *NIST*

- ### Program Summary (3)
- Properties for Microelectronics
 - Properties of Nuclear Materials
 - Molecular Modeling, Including Simulation (12)
 - Thermodynamics and Properties in the Biological, ... (8)
 - Ionic Liquids (8)
 - Instrumentation and Measurement Techniques (7)
 - Properties of Working Fluids, Including Refrigerants (7)
 - Properties and Processes for a Hydrogen-based Economy (1)
 - Properties for Sustainable Development (2)

CONFERENCE INFORMATION

Award Ceremony, Lectures, and Reception (Touloukian, Rossini and Huffman): The award lectures and ceremony will be held on Tuesday, August 1, in the UMC Ballroom beginning at 1:45 p.m. A reception will follow in the UMC Courtyard.

Banquet: The conference banquet will be held on Thursday, August 3, 6:00–10:00 p.m. at the National Center for Atmospheric Research (NCAR). Buses will be available on Regent Drive near the Fiske Planetarium, and will leave starting at 5:45 p.m. Admission to the banquet is included in your registration. Tickets for guests are available at conference registration.

Breaks: All morning and afternoon breaks will be on the patio of the Mathematics Building and at the Coors Events Conference Center.

Conference Office: The main office will be located in the Engineering Center, Room 133 (303-492-7220).

Emergencies: In case of an emergency, call the Kirtledge Office at 303-492-7002 or the University Police at 303-492-6666. In case of medical or other serious emergencies, dial 911.

Fax, E-Mail, and Copies: Fax and copy services are available from local vendors or Kirtledge Commons (303-492-4507). There is a charge for fax and copy services. Internet and e-mail are accessible through campus computers. To logon, the conference user name is confther and the password is 1184a523.

Health: Boulder Community Hospital (303-440-2273) is available for serious medical attention. For urgent care and minor injuries or illnesses, the Wardenburg Student Health Center (303-492-5101), on campus, is available to conference participants. Wardenburg hours are 8 a.m. – 5 p.m. Monday – Friday, and 9 a.m. – 1 p.m. Saturday. Wardenburg is closed on Sunday.

Meal Hours: All meals will be served in the Kirtledge Commons dining room during the following hours: Breakfast: 7:00–8:30 a.m.; Lunch: 11:00 a.m. – 1:30 p.m.; Dinner: 5:00–6:30 p.m. Dinner on Tuesday evening has been extended until 7:00 p.m. following the award reception.

Meal Packages: Meal packages for those not staying in campus housing can be purchased at registration for \$96.65. However, meal tickets for individual meals can be purchased at the Kirtledge front desk at any time. The package includes lunch daily on Monday – Friday, and dinner daily on Sunday – Wednesday. (Thursday dinner will be a banquet – see above.)

Messages: Message boards will be located in the Kirtledge Commons. You may use the Kirtledge office number (303-492-7002) as your contact number for phone messages. Messages will then be placed on the message boards.

Parking: Parking permits for the week of the conference are available from the registration web site for a cost of \$19.00. They will also be sold at the Kirtledge Front Desk for the duration of the conference. Permits for parking on campus are required, and tickets are issued if proper permits are not displayed.

Plenary Sessions: Plenary sessions will be held at the University Memorial Center (UMC). Buses will circulate between the Kirtledge Complex and the UMC for 30 minutes before, during, and for 30 minutes after the plenary sessions. Additional stops can also be made on these circuit routes, e.g., at the Engineering Center, Math Building, etc.

Registration: On-site registration and pickup of Conference materials will be in the UMC Ballroom from 4:00–8:00 p.m. on Sunday, July 30th. Registration will continue on Monday morning at the UMC Ballroom. Starting with Monday afternoon, registration will be located in the Engineering Center, Room 133. Advance registration is available through the conference web site. The cost is \$475 for advance registration through June 30th, and \$525 thereafter.

Session Locations: Sessions will be held in the Engineering Classroom Building, Benson Earth Sciences Building, Coors Events Conference Center, the Mathematics Building, the Stadium Club at Folsom Field, and the University Memorial Center, as indicated in the program.

Socials: The social area will be located in the Hardrive Café in the Kirtledge Commons, and will be open from 8:00–11:00 p.m. on Sunday and Tuesday. On Monday and Wednesday the social area will be open from 9:00–11:00 p.m. due to later evening sessions. Beverages and light snacks will be provided. There will be no social area on Thursday because of the banquet.

Tours: There will be four tours offered as a part of THERMO International 2006: (1) Flatiron Crossing Shopping, Monday, July 31, 10:00 a.m. – 3:00 p.m.; (2) Welcome to the Mile High City (Denver), Tuesday, August 1, 10:00 a.m. – 1:00 p.m.; (3) Discover Gold at Phoenix Gold Mine, Wednesday, August 2, 10:00 a.m. – 3:00 p.m.; (4) A Day of Wings and Things in the Springs (Colorado Springs), Friday, August 4, 1:30 p.m. – 10:30 p.m. The tours will start from the UMC building unless otherwise indicated on your ticket in the registration package.

Transportation: Boulder is 27 miles northwest of Denver via U.S. 36. The airport serving Denver is Denver International Airport (DIA). Boulder is approximately 45 miles northwest of the airport. Several forms of surface transportation are available from DIA to Boulder.

Plenaries

- Registration Reception
- Welcome/opening
- Awards
- Joint Sessions (Bio/Data)
- Banquet

THERMO International 2006 Plenary 2

Chair: W.M. Haynes, D.G. Friend, and M. Frenkel

- **Mickey Haynes**, President
Executive Board of THERMO International 2006
- **Dan Friend**, Chair
Sixteenth Symposium on Thermophysical Properties
- **Michael Frenkel**, Chairman
Nineteenth International Conference on Chemical Thermodynamics (ICCT)
Program Chair
- **Mirek Gruszkiewicz**, Chairman
Sixty-First Calorimetry Conference (CalCon)
- **Jean-Pierre Grolier**, President
International Association on Chemical Thermodynamics
- **Neil Wright**, Chair
ASME/AIChE Joint Committee on Thermophysical Properties

THERMO International 2006 Plenary 2

Chair: W.M. Haynes, D.G. Friend, and M. Frenkel

- **Mark Ruzzin**, Mayor
City of Boulder
- **G.P. "Bud" Peterson**, Chancellor
University of Colorado at Boulder
- **Zelda Chapman Bailey**, Director
NIST Boulder Laboratories
- **Willie May**, Director
Chemical Science and Technology Laboratory (CSTL), NIST

Announcements:

- **Tetsuya Baba**
Eighth Asian Thermophysical Properties Conference (ATPC)
- **Antoine Baylaucq**
Eighteenth European Conference on Thermophysical Properties (ECTP)

Social Functions

- **Hardrive Café:**
 - 8 -11 PM (S, T)
 - 9 – 11 PM (M, W)
- **Banquet: Thursday (NCAR)**
- **Award Reception (Tuesday)**
- **Breaks: AM and PM**