

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

Friday, 4 August 2006

1:30 – 3:30 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, Mickey Haynes, Zhoumin Zhang, Marcia Huber, Jim Ely, Paul Mathias, Jim Holste, Richard Jacobsen, Neil Wright, Samuel Graham, Rakesh Srivastava

Guests: Piotr Domanski, Mark McLinden

1. Neil Wright called the meeting to order at 1:30 p.m.
2. Neil Wright formally introduced Samuel Graham and welcomed him to the committee.
3. Piotr Domanski and Mark McLinden were in attendance to discuss the possibility of combining with the International Institute of Refrigeration (IIR) Commission B1 Conference (Thermophysical Properties and Transfer Process of Refrigerants) with the 17th Symposium in 2009. A copy of Piotr's slide presentation is attached to these minutes. Richard Jacobsen moved approval of this co-conference with the idea that a joint committee would be appointed to work out the detail. Jim Holste seconded the motion. The motion passed unanimously.
4. The minutes of the K-7 committee meetings of November 11, July 30, and today (August 4), will be distributed electronically and approval will be requested electronically
5. The committee considered the election of officers of the joint committee.

Richard Jacobsen nominated Neil Wright to continue as chair of the K-7 Committee for a second term. Mickey Haynes seconded the motion. The motion passed unanimously.

Neil called for nominations for the Vice-Chair of the K-7 Committee. Richard Jacobsen nominated Rajiv Singh to continue as Vice-Chair of the committee for a second term. Ilja Siepmann seconded the motion. The motion passed unanimously.

Neil called for nominations for Secretary/Webmaster for the K-7 Committee. Jan Sengers nominated Steve Penoncello to continue for a second term. Jim Ely seconded the motion. The motion carried unanimously.

Jan Sengers nominated Ilja Siepmann to replace Jan Sengers as AIChE liaison. Dan Friend seconded the motion. The motion carried unanimously.

6. The committee considered the election of members to the Touloukian Award Committee. Neil turned the meeting over to Richard Jacobsen, current Touloukian Award Chair to conduct this part of the meeting. Richard reviewed some of the issues related to the Touloukian Award Committee and its current members. Andreas Mandelis has served one term and has requested that he be replaced on the

Touloukian Award Committee. The current makeup of the committee is shown in the table below (taken from the K-7 website).

| Name | Year Appointed | End of Term | Past Terms Served |
|--------------------|----------------|-------------|-------------------|
| Richard T Jacobsen | 1997 | 2009 | 1 |
| Andreas Mandelis | 2000 | 2006 | 1 |
| Mickey Haynes | 2003 | 2009 | 0 |

Jan Sengers nominated Zhouman Zhang to replace Andreas Mandelis. Samuel Graham seconded the nomination. The motion passed unanimously.

Richard Jacobsen had previously offered to leave the committee at the end of the 16th Symposium. However, after some discussion, it was decided that Dr. Jacobsen would remain on the committee since his term officially does not expire until 2009.

Jan Sengers nominated Richard Jacobsen as chair of the Touloukian Award Committee. Jim Holste seconded the motion. The motion passed unanimously.

Jan Sengers nominated Mickey Haynes as vice-chair of the Touloukian Award Committee. Dan Friend seconded the motion. The motion passed unanimously.

7. The committee discussed the 17th Symposium.

The committee considered the selection of a Chair and vice-chair for the 17th Symposium. Richard Jacobsen nominated Dan Friend to Chair the 17th Symposium. Marcia Huber seconded the motion. The motion carried unanimously.

Mickey Haynes suggested that we consider a co-chair to help on the fluids side. Richard Jacobsen suggested that we appoint a conference chair with two vice chairs (one on the fluids side and one on the solids side).

Dan Friend nominated Marcia Huber as a vice-chair on the fluids side. Jan Sengers seconded the motion. The motion passed unanimously.

Dan Friend nominated Zhoumin Zhang as a vice-chair on the solids side. Jan Sengers seconded the motion. The motion passed unanimously.

By consensus of the committee, Dan Friend will be working with the IIR organizing committee in organization of the 17th Symposium/IIR joint conference in 2009.

The 17th Symposium will be held June 21 – 26, 2009, in Boulder, CO.

8. Dan Friend gave a preliminary review of the 16th Symposium. Dan asked that each of the K-7 members send an email symp16@nist.gov with critique of the symposium and suggestions for the 17th Symposium.

9. The committee discussed several items concerning the 16th symposium.

- a. Richard Jacobsen carried a message from several attendees that a session or sessions on multi-parameter correlation of equations of state should be separate from the database sessions.

- b. Jim Ely suggested that we consider soliciting symposium attendees to get feedback. Dan Friend suggested that Jim Ely and Clare McCabe modify FOMMS 2006 meeting feedback form and send it to Dan for distribution electronically.
- c. Jan Sengers commented that the NCAR banquet is very good and should continue to be an integral part of the meeting.
- d. Jan Sengers suggested that some of the sessions were physically quite far apart and difficult to get to.
- e. Jim Ely said that he had heard several comments that the introductory session was perhaps too long (in particular, the introductions) and that the auditorium was uncomfortable.
- f. Jim Ely felt that the deadline for manuscript submission was not well advertised.
- g. Jan Sengers suggested that we consider more female invited speakers. Clare McCabe raised a concern about some of the invited speakers and how they ended up being 'invited'.
- h. Steve Penoncello thanked Richard Jacobsen for his introduction of Anneke Sengers for the Touloukian award.
- i. Steve Penoncello suggested that the K-7 committee consider whether or not the Symposium should formally adopt a policy on attendees taking digital pictures of the presentations. Rakesh Srivastava suggested that slides may be made available at the conference or on the Symposium web site where they can be downloaded.
- j. Jan Sengers suggested that we consider having the Touloukian award winner deliver the Touloukian Award Lecture. The committee discussed this issue and the consensus was that it should be left as is.
- k. Marcia Huber brought up a concern about a lack of attendance at sessions directly after the poster sessions. The suggestion was that perhaps the posters should be moved to a time that will not interfere with subsequent sessions.

Many of these items will be part of committee discussions at future K-7 meetings.

10. Jan Sengers acknowledged Dan Friend and Mickey Haynes for all of their work in the organization of the joint meeting. Jan suggested that the Joint Committee adopt the following formal resolution: *The Joint ASME-AIChE Committee on Thermophysical Properties recognizes and appreciates the exceptional effort of Dan Friend and Mickey Haynes who worked to make the 16th Symposium on Thermophysical Properties at Thermo International 2006 a success.* The committee unanimously approved this resolution.

11. Dan Friend acknowledged the many people who played key roles in making the 16th Symposium the success that it was. Dan suggested that the Joint Committee adopt the following formal resolution: *The Joint ASME-AIChE Committee on Thermophysical Properties expresses its appreciation to the members of THERMO International 2006 Board, the organizers of the 16th Symposium and Joint sessions conference, Virginia Schultz from CU, and in particular, Gary Hardin, Marcia Huber, Eric Lemmon, Joe Magee, Chris Muzny, Jason Widegren, and Marilyn Yetzbacher from NIST.* The committee unanimously approved this resolution.
12. The committee considered new business.
 - a. The next meeting of the K-7 meeting will be held on June 29, 2007 in Boulder. Dan will check on the status of web-based capability for those who cannot travel to Boulder.
13. Jim Holste moved adjournment. Richard Jacobsen seconded the motion. The motion passed unanimously. The meeting adjourned at 3:18 p.m.

Respectfully submitted,
Steve Penoncello, Secretary

International Institute of Refrigeration (IIR)

- Intergovernmental organization
- 61 Member Countries



International Institute of Refrigeration

Mission of the IIR

To promote expansion of knowledge and dissemination of information on all refrigeration technologies and their applications

- Conferences
- IIR website; 7000 visits per month
- Newsletter; sent to 5000 people
- International Journal of Refrigeration; 120000 paper downloads per year
- E-Bulleting of the IIR
- Books
- Training courses

International Institute of Refrigeration

IIR Sections and Commissions

| | | | | |
|-----------|--|----------|--------------------------------------|----|
| E1 | Air conditioning | E | Heat pumps, energy recovery | E2 |
| D1 | Refrigerated storage | D | Refrigerated transport | D2 |
| C1 | Cryobiology, cryomedicine | C | Food science and engineering | C2 |
| B1 | Thermodynamics and transfer processes | B | Refrigerating equipment | B2 |
| A1 | Cryophysics, cryoengineering | A | Liquefaction and separation of gases | A2 |

International Institute of Refrigeration

Commission B1 Conferences

- 2001; Paderborn, Germany
- 2005; Vicenza, Italy

We are proposing

- 2009; Boulder, CO, USA

Thermophysical Properties and Transfer Processes of Refrigerants IIR Conference
as a joint conference with the
17th Symposium on Thermophysical Properties

International Institute of Refrigeration

Joint Conference Concept

| | | | | | |
|--|--------|---------|-----------|----------|--------|
| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday |
| 17th Symposium on Thermophysical Properties | | | | | |
| IIR Conference | | | | | |
| 100 papers / 20 sessions 130-150 participants | | | | | |

Participants allowed to attend any technical session
Joint social events (evening socials, conference dinner)
Joint printed conference program
Jointly-sponsored sessions on refrigerant properties
Separate review processes; papers on refrigerant properties to be directed to the IIR conference
Separate proceedings CDs
Different registration fees prorated based on the length of the conferences and incurred expenses

International Institute of Refrigeration

IIR Conference Schedule

Tuesday:
Registration starts at 13:00
The Touloukian Award presentation and reception available to early IIR arrivals
Evening Social

Wednesday:
Registration
Opening Ceremony/Keynote
Technical Sessions
Evening Social

Thursday:
Keynote Presentation
Technical Sessions
Joint Conference Dinner/BBQ

Friday:
Technical Sessions (half day)
Closing Ceremony

Topics

Thermophysical Properties (30 %)
Heat and Mass Transfer, Natural Refrigerants, Heat Exchangers (60 %)
Other (10 %)

International Institute of Refrigeration