

**Minutes of the  
Joint ASME-AIChE Committee on Thermophysical Properties**

**Friday June 25, 2004  
8 AM - 3 PM  
NIST, Boulder, Colorado**

**Members Present:** Dan Friend, Mickey Haynes, Jim Holste, Dick Jacobsen, Paul Mathias (by teleconference), Jan Sengers, Rakesh Srivastava, Rajiv Singh, George Thomson, Neil Wright

**Members Absent (Excused):** James Ely, Peter S. Kezios, John Kincaid, Andreas Mandelis, Jim Olson, Tony Overfelt, Steve Penoncello, Martin Schiller, J. Ilja Siepmann, Zhoumin Zhang

1. **The meeting was called to order** at 9:00 am by the committee chair Neil Wright
2. **Review of the minutes of June 2003.** Motion to approve minutes by George Thomson was seconded by Dick Jacobsen. Motion carried unanimously.
3. **Welcome** was extended to the two new members, Rakesh Srivastava and Martin Schiller. By the chair on behalf of the committee.
4. **Special Recognition** was extended to the retiring member, George Thomson, by the Chair for his contributions to the formation and functioning of this committee (see Appendix 1). The chair also extended his gratitude to Dick Jacobsen for his efforts in maintaining the high standards for this committee and informed that a more formal recognition will follow from the Heat Transfer Division of the ASME.
5. **Report of the AIChE liaison.** Jan Sengers reported on the need to keep Area 1a chair informed of our activities. Jan will be our liaison until 2006 and has kept AIChE informed of last year's actions of the committee. There was discussion about K-7 having some of its meeting at the National Heat Transfer Conference. *Action Item:* Neil Wright to discuss this with K-5 to see what options are available for meeting at the National Heat Transfer Conference.
6. **Next meeting of the committee** will be in Boulder on Friday June 24<sup>th</sup> 2005 at 9 a.m. The symposium committee (Friend, Haynes, Mandelis and Frenkel) will be asked to present plans for the next symposium. Paul Mathias volunteered to host a trial web meeting on 22<sup>nd</sup> November 2004 to talk about the 2006 meeting flyer. Jim Holste asked if web meetings are available from Qatar. More electronic meetings could be held if this test meeting works out well. Paul Mathias will run a test with Neil Wright, prior to the Nov 22<sup>nd</sup> web meeting. [Post meeting note: Paul is changing positions and will be unable to host the web meeting.]
7. **The 2006 Joint Conference with ICCT** was discussed by Mickey Haynes and Dan Friend. Mickey reported on the logistics of the conference. It is difficult to get ICCT to focus on the 2006 conference as they involved in planning their 2004 conference in Beijing. Still, the ICCT meeting is structurally similar to the Thermophysics conference, with Plenary sessions, opening sessions and award lectures (Rossini & Huffman, in the case of ICCT). Expected attendance for the joint conference is

between 800 and 1000. The venue for the Plenary sessions was discussed. University of Colorado has two venues that could accommodate the Plenary sessions. It was recommended that both the ICCT and Thermophysics conferences start and stop at the same time. There was some discussion on a common name for the Joint Conference. Thermo 2006 is not available due to another European conference. **Jan Sengers proposed, seconded by George Thomson, to suggest to ICCT the joint name “Thermophysics and Thermochemistry 2006”. The motion carried 9-0-0.**

There was some discussion on the format of the Joint Conference, the number of Plenary talks, etc. It was concluded that Thermophysics Plenary speakers should not be in competition with ICCT’s Plenary speakers. In this vein, Mickey reported that he is working on the premise of having one Awards reception and one Cookout for both the conferences. The Thermophysics Symposium flyer and website format will remain same as the old, with an extra line saying “Joint with ICCT”. Dick and Jan agreed to help Dan with mailings. Dan may ask other members for help as needed. Dan will work with Mickey on the registration fee issue but the fees for the ICCT and the Thermophysics meetings will be approximately the same. The committee members discussed possible speakers for the plenary lectures.

8. **15<sup>th</sup> Symposium update** was provided by Dan Friend. The attendance was healthy at 450 from 40 countries. Some 689 papers were accepted, with 1,500 authors from 49 countries. About 150 papers will appear in IJT. There was no information available on the number of papers appearing in FPE. [Post meeting note: Jim Ely notes that there were a total of 48 papers submitted to FPE from the 15<sup>th</sup> with 43 being accepted. The papers are either published or will be so in the next few weeks. The references are in vol 222-223C.] Dan Friend proposed that we stick with these two journals while keeping the flexibility to also go to “High Temperature-High Pressure”. The budget has a slight surplus, sufficient only for sending out the 2006 flyers. Some presenters from certain countries were unable to come due to Visa issues. The poster session and computer database demonstrations went well, even though some poster presenters did not show up. What went well: Invited Speakers, Abstract book, etc. The sentiment was that an Abstract book for the future meetings might not be necessary, due to its expense and weight. Kiosks with web access were available for looking up abstracts in this meeting, but need to be better publicized.
9. **Ideas for 16<sup>th</sup> Symposium focus areas** were requested by Dan Friend. The 15<sup>th</sup> Symposium announcement was reviewed to aid the discussion on Special sessions. There was agreement to emphasize the Nano- and Bio- areas. Jan and Neil will be associated with Bio- area. Zhoumin will be contacted for the Nano-area. Jim Holste suggested that we should participate in investigating property needs for a Hydrogen Economy. Jan Sengers pointed out that Phase Equilibria/Properties in Complex Fluids and Mesoscopic Fluids is a very active area, and so bulk properties of polymers should be separated from those with mesoscopic structure. General agreement, after some discussion, was reached on the following ideas for Special sessions of the 16<sup>th</sup> Symposium. The titles of the sessions that need to be changed (from the 15<sup>th</sup> symposium) are
  - Change title to Property Needs.
  - Combine Databases and Data Collections with Properties for Process Design.
  - Keep “Inverse Problems” session.

- “N.T. Evaluations” may be blended with Inverse Problems, if Andreas Mandelis agrees.
  - Jim Holste suggested dropping “Novel” in Instruments and Measurements session since it is redundant.
  - Change “Critical Properties” to “Fluctuation Induced Properties of Fluids”.
  - Change “Ultra-short Length-scale” to “Properties at Nanoscale”
  - Keep “Photothermal & Photoacoustic Techniques”
  - Sponsor a session jointly with ICCT on “Properties for Sustainable Development”.
  - Ask Tony Overfelt if a session on Metallurgy is appropriate.
  - Keep session on Aqueous Properties.
  - Add a session on Properties for a Hydrogen Economy.
  - Keep “Properties of Fuels”.
  - Change the name of “Properties of Polymers and Complex Fluids” to “Properties of Mesoscopic Fluids”.
  - Add “Fluctuation-Induced Properties of Fluids”
  - Keep “Properties of Solids” for the time being.
  - Keep “Refrigerants and Working Fluids”.
  - Keep “Subsecond Thermophysics”.
  - Keep “Theory and Modeling of Thermodynamics”.
  - “Thin Film Properties” session did not work out very well with both lubricant and electronics papers. The suggestion was made to separate it into “Properties for Microelectronics” and “Wetting, Interfaces, and Membranes”.
  - Paul Mathias suggested a joint session with ICCT on “Properties for Pharmaceutical Applications”.
  - A session was suggested on “Computational Methods in Thermodynamic Calculations”.
  - Another session was suggested on “Properties of Nuclear Materials”. Dick Jacobsen volunteered to find a suitable organizer.
10. Dick Jacobsen outlined **the reorganization of ASME** that will be in place by July 2005. The K-7 committee is in the Knowledge and Community group and will continue to report to the Chair of the Heat Transfer Division. The reorganization is to reduce the cost of running the Society. Dick’s expectation is that the committee will continue as before. He recommended that this committee become the point of Peer Review for Thermophysical Properties. We have reasonable hopes of keeping custodial accounts and also raising some money by publishing, for which we can use the ASME name. There was some discussion about the Touloukian Award, which is an ASME custodial account. The discussion centered on whether these funds can also be used for the Touloukian Lecture. It was agreed that the rules might be changed if needed in the future, but there was no need to do so currently.

Dick circulated the Rules for the Touloukian Award. The nominations are due on September 1, 2005, but it is preferred that they be in by spring of 2005. Anyone can make nominations but if not enough are nominated, then the Chair of the Award Committee is responsible for reminding people to submit nominations. The current

members of the Award committee are Jacobsen (Chair, term expiring 2006), Haynes (should become an ASME member, term expiring 2009) and Mandelis (term expiring 2006). Dick requested the Chair to consider his replacement. Jan Sengers proposed that Mickey Haynes be appointed Chair in 2006. Dick Jacobsen recommended that one committee member change at each symposium, in this way institutional memory will be maintained.

11. **Membership:** Some discussion occurred on what is the right number of members. Neil Wright suggested we should keep K-7 at 20 to 25 members. Rakesh Srivastava will check if Jim Olson will continue. If not, the committee owes him a vote of thanks. Neil Wright, George Thomson, and Jan Sengers suggested potential members. Mickey Haynes and Dan Friend stated that they might not be available for the 2009 Symposium. It was thought proper, therefore, to have an additional NIST person on the committee. **Action Item:** *Dan Friend will look into nominating someone from NIST by 2005.*
12. **New Business:** Neil Wright was asked to announce at the ASME National meeting the “Thermophysics and Thermochemistry 2006” Symposium and also to ask the ASME K-5 committee to approve this meeting. Dick Jacobsen asked for suggestions of a way to archive the historical files of the committee including those related to the Touloukian award. Jan Sengers suggested appointing a member as Historian of the Committee. Neil Wright suggested scanning the documents. Archiving at NIST was also suggested. Jan Sengers discussed future sessions at ASME meetings, noting the importance of participation in the HTD. It was suggested that the agenda for the November web meeting include efforts to get papers for ASME/HTD meetings (e.g. on the Hydrogen Economy). Neil Wright will check with ASME as when we have to commit the promised session. Jan Sengers suggested that we put an article, first in ASME and HTD newsletters, recognizing the long service of Dick Jacobsen and citing Neil Wright as the new chair. This article should also announce the Joint AIChE/ASME Committee, the 16<sup>th</sup> Symposium and include an abstract on the Touloukian Award. Neil Wright is to write this, with input from Jan and Dick. The same article should also be sent to AIChE Extra.
13. **A motion to adjourn was moved by Dan Friend, with George Thomson seconding.** The motion was approved 9-0-0.

## **Appendix 1**

In recognition of his years of dedicated and faithful service as a member of the ASME K-7 Standing Committee on Thermophysical Properties, and more recently the ASME-AIChE Joint committee on Thermophysical Properties; for his valuable support in the formation of the Joint Committee; and for his well-recognized influence in the development of Thermophysical Properties Data for use in engineering systems, the ASME-AIChE Joint Committee on Thermophysical Properties gratefully acknowledges the efforts of George Thomson on its behalf on this day June 25, 2004 at its annual meeting in Boulder, Colorado.