

Meeting Minutes HTD K-15 Committee
Transport Phenomena in Manufacturing and Materials Processing
Tuesday, November 13, 2007, 4:00 – 5:30 pm
Sheraton Seattle Hotel, Seattle, WA

Attending: Jamil Khan, Junling Hu, Guo-Xiang Wang, Yuwen Zhang, Roop L. Mahajan, Adrienne Lavine, Sunil Kumar, Costas Grigoropoulos, Ben Li, Wilson K. S. Chiu.

Email addresses are provided in Attachment.

1. Tim Tong – Report from the Executive Committee

- Total of 465 papers sponsored by HTD, 86 sessions organized.
- Healthy custodial fund - approximately \$130K compared to \$25K in 5-6 years ago.
- EC would like to support UG students attending conferences, and welcome proposals to support other heat transfer activities.
- IMECE07 problem with unauthorized moving of papers across sessions/tracks is very pronounced.
- EC feels that they are forced to make drastic, but necessary, changes. Proposing to organize separate heat transfer winter meeting; collocate with IMECE.
- IMECE08 will have individual Heat Transfer track.
- Technical committees need to send session topics and session chair info to IMECE08 TPR (Van Carey) by Dec 1, 2007.

K-15 response to IMECE07 problems:

- Propose to return to original IMECE format. First 2 days are for HTD session; Third day will be interdisciplinary coordinated initially with AMD. This interdisciplinary coordination can rotate annually with other technical divisions.
- K-15 would like control of sessions, while maintaining current structure. EC should identify where the problems are, then create a solution from the bottom up.

2. Report from 2006 IMECE (KCR: Yuwen Zhang)

- 5 topics, 16 papers:
 1. *Transport Phenomena in Materials Processing and Manufacturing* (Wang): Two sessions to be held Thursday.
 2. *Thermal Processing of Nanostructured Materials* (Bergman, Xu): 4 abstracts, 1 reject, 3 presentations.
 3. *Laser Applications in Manufacturing and Materials Processing* (Li, Hu): 5 papers, 5 presentations.
 4. *Ultrafast Laser Processing* (Tsai): 2 abstracts, 1 paper, moved to Topic 3.
 5. *Transport Phenomena in Biomaterials Processing* (Ma): 0 abstracts received.
- ASME was very strict - needed 5 papers per session.

3. Sessions for the SHTC08 (Jacksonville, FL)

- KCR: Yuwen Zhang
- 4 topics proposed:
 1. *Transport Phenomena in Materials Processing and Manufacturing* (Ronggui Yang, Mahajan)
 2. *Heat and Mass Transfer in Nanomanufacturing* (Li)
 3. *Transport Phenomena in Nanostructured Wicks* (Majid Charmchi)
 4. *Materials Processing Issues in Energy Systems* (Chiu)
- Mahajan: Proposed new topic *Transport Phenomena in Extreme Processing* for consideration and future discussion.

4. Topics for IMECE08 (Boston, MA)

- TPR (Van Carey) requests K-15 to appoint chair/co-chair to be technical committee representative (previously KCR).
- K-15 Representative: Wilson Chiu.

- Proposed Subtopics:
 1. *Transport Phenomena in Materials Processing and Manufacturing* (Wang)
 2. *Materials Processing Issues in Energy Systems* (Wang, Chiu)
 3. *Laser Applications in Manufacturing and Materials Processing* (Hu)
 4. *NSF Workshop on Advanced Thermal Processing* (see below)

5. NSF Workshop on Advanced Thermal Processing

- K-15 is planning to hold a multi-session symposium during the 2008 ASME IMECE in Boston, MA during November 2-6, 2008. Outside experts will be invited from industry, research labs, and academia to present the latest challenges and opportunities in materials processing.
- Speakers will be invited to contribute to an *ASME Journal of Heat Transfer* Special Issue to be published after the workshop.
- Currently seeking sponsorship from the NSF and the Heat Transfer Division Executive Committee for speaker travel expense and conference registration.
- Please send Speaker suggestions to Wilson Chiu (wchiu@engr.uconn.edu).

6. Mission statement and K-15 Web

- Committee approves mission statement.
- Committee thanks Junling Hu for her effort in setting up and maintaining the K-15 Web Page.

7. K-15 Membership and Attendance

- There is a noticeable decline in committee meeting attendance in recent years, especially during the summer conferences.
- Possible explanation includes funding and individual interest. Such events may be cyclic.
- Propose that each member invite a potential new member to our next committee meeting.

Submitted by Wilson Chiu.

ATTACHMENT

HTD K-15 Committee Meeting November 13, 2007 Attendees

Name	Email Address
Jamil Khan	Jamil.Khan@sc.edu
Junling Hu	jjhu@bridgeport.edu
Guo-Xiang Wang	gwang@uakron.edu
Yuwen Zhang	zhangyu@missouri.edu
Roop L. Mahajan	mahajanr@vt.edu
Adrienne Lavine	lavine@seas.ucla.edu
Sunil Kumar	skumar@poly.edu
Costas Grigoropoulos	cgrigoro@me.berkeley.edu
Ben Li	benqli@umich.edu
Wilson K. S. Chiu	wchiu@engr.uconn.edu