

## **ANNOUNCEMENT AND CALL FOR PAPERS for TMNN-2011**

### **The International Symposium on Thermal and Materials Nanoscience and Nanotechnology, TMNN-2011**

Dedeman Hotel, Antalya, Turkey  
May 29 - June 3, 2011

For further information, see: <http://www.ichmt.org/tmnn-11>

The International Centre for Heat and Mass Transfer (ICHMT) is pleased to announce the international symposium on Thermal and Materials Nanoscience and Nanotechnology, TMNN-2011 taking place in Dedeman Hotel Antalya, Turkey, during May 29 - June 3, 2011.

International Symposium on Thermal and Materials Nanoscience and Nanotechnology, TMNN-2011 will play a role in bridging the gap between chemistry, physics and engineering, it will attract papers in the areas of Thermal and Materials Nanoscience and Nanotechnology, and it will help advance developments in Heat and Mass Transfer Engineering. In addition, it will contribute to the goal of further understanding the wide diversity of length scales ranging from the nano- to macroscopic scales, while providing a new path to bridging the gap between them by discussing the validity of theories and/or mathematical and numerical models considered valid only within their respective domains. Attention will be given to how phenomena at the nanometer level impacts macroscopic heat and mass transfer processes, such as how electron, photon, and phonon transport and their interactions in micro/nanostructures affect the design of thermal systems, optical, and medical devices.

Although it is an engineering conference, it will attract numerous chemists, physicists, and material scientists from diverse fields in our efforts to promote translational, interdisciplinary research for Heat and Mass Transfer Engineering. The activities will foster networking opportunities between engineering experts, and they will allow participants to exchange ideas and explore new perspectives of fellow professionals from hundreds of different institutions and industries around the world. The participants will share and disseminate scientific knowledge and research results related to new technologies.

#### **CONFERENCE TOPICS**

Thermal and materials science papers including the most recent developments in the fields of nanotechnology particularly related to

- \* Photonics and Electronics,
- \* Micro/Nano Systems and Nanostructured Surfaces,
- \* Energy Generation,
- \* Harvesting and Storage of Energy,
- \* Multi-scale Modeling,
- \* Composite Materials and Diffusion,
- \* Microfluidics and Nanoparticles.

The meeting will be centered around recruited keynote speakers, **invited papers and panel discussions** presenting in several plenary sessions that will focus attention on program areas of current interest and future trends, and it will be followed by technical paper presentation and poster sessions providing additional discussion on recent progress of these topics. Other evening networking events and a panel discussion will occupy the remainder of the program throughout the week.

## **KEYNOTES**

- \* "Engineering at the Nanoscale: Route to Applications and Challenges", Pulickel M. Ajayan
- \* "Hierarchical Thermal Transport Modeling and Simulation in Semiconductors from Nano to Macro Scales", Cristina Amon
- \* "Pore-Scale Simulation of Single-Phase and Two-Phase Flows in Carbon Paper Porous Media with Micro-Structures", Ping Cheng
- \* "Advances in Micro and Miniature Passive Direct Methanol Fuel Cells", Amir Faghri
- \* "Using Inverse Analysis to Optimize Nanoscale Radiative Surface Patterns and Enhance Solar Cell Performance", Jack Howell
- \* "Nanoscale Thermopower Profiling Technique Using a Diamond Thermocouple Probe", Joon Sik Lee
- \* "Nano-Engineered Carbon Hybrid Systems", Beng Kang Tay

## **INTERNATIONAL SCIENTIFIC COMMITTEE**

- Pulickel AJAYAN, Rice University, USA
- Cristina AMON, University of Toronto, Canada
- Masud BEHNIA, University of Sydney, Australia
- Renato COTTA, Univ. Federal do Rio de Janeiro, Brazil
- Gian Piero CELATA, Inst. of Thermal Fluid Dynamics, Italy
- Ping-Hei CHEN, National Taiwan University, Taiwan
- Ping CHENG, Shanghai Jiao Tong University, China
- Minking K. CHYU, University of Pittsburgh, USA
- Vijay DHIR, Univ. of California, Los Angeles, USA
- Nilüfer, EGRICAN, Yeditepe University, Turkey
- Amir FAGHRI, University of Connecticut, USA
- Richard J. GOLDSTEIN, University of Minnesota, USA
- Kenneth GOODSON, Stanford University, USA
- Naomi HALAS, Rice University, USA
- Cila HERMAN, Johns Hopkins University, USA
- John R. HOWELL, University of Texas at Austin, USA
- Sadik KAKAÇ, TOBB Univ. of Economics & Tech., Turkey

- Satish KANDLIKAR, Rochester Institute of Technology, USA
- Tay Beng KANG, Nanyang Technological University, Singapore
- Pawel KEBLINSKI, Rensselaer Polytechnic Institute, USA
- Joon Sik LEE, Seoul National University, South Korea
- Shigenao MARUYAMA, Tohoku University, Japan
- Pinar MENGÜÇ, University of Kentucky, USA
- Jayathi MURTHY, Purdue University, USA
- Pam NORRIS, University of Virginia, USA
- Bud PETERSON, Georgia Institute of Technology, USA
- Dimos POULIKAKOS, Swiss Federal Inst. of Technology, Switzerland
- Masahiro SHOJI, Kanagawa University, Japan
- Ajay SOOD, Indian Institute of Science, India
- Mauricio TERRONES, Penn State, USA
- Robert TZOU, University of Missouri, USA
- Anton VAN STEENHOVEN, Eindhoven Univ. of Technology, The Netherlands
- Brent WEBB, Brigham Young University, USA

## **PRESENTATIONS / PUBLICATIONS**

The Symposium will have both stand-up and poster presentations of contributed papers. All keynote lectures and other contributions will be available in the form of CD-ROM to the participants at the registration. Begell House will publish the presented submissions in a proceedings volume. A set of selected keynotes and contributed manuscripts will be invited by Professor Bayazitoglu, the chair of the conference to send their full manuscripts for publication in a special issue of the International Journal of Thermal Sciences (IJTS), an Elsevier publication.

The poster sessions will allow the researchers to discuss their most recent work in a relaxed atmosphere. The authors will be asked to submit their preference of a stand-up or a poster presentation while they submit their manuscripts. The conference chair will make the final decision.

All authors are expected to send their manuscripts in camera-ready format (in pdf or as a MS-Word document) electronically. The guidelines for preparing camera-ready manuscripts can be found on the Web site.

## **THE INTERNATIONAL JOURNAL (IJTS) EDITOR'S BEST PAPER AWARD**

An Award will be given by the International Journal of Thermal Science (IJTS) Editors to the best paper co-authored and presented by a graduate student or post-doctoral student as the first author (the co-authors could be senior). It is required that this paper is submitted to the special volume of the IJTS of TMNN-2011 conference. The Award will consist of 500 EU and a certificate.

## **SCHEDULE OF DATES**

15 February 2011 Electronic copies of Manuscripts

1 April 2011 Notification of acceptance of Manuscripts  
15 April 2011 Final, camera-ready Manuscripts  
15 April 2011 Registration Fee and accommodation room charges

## **CORRESPONDENCE**

Send your manuscripts to Yildiz Bayazitoglu, (Symposium Chair) and for more information about the Symposium, write to Faruk Arinç (ICHMT Secretary-General)

### **Symposium Chair:**

Professor Yildiz Bayazitoglu  
H.S. Cameron Chair Professor  
Rice University  
Mechanical Engineering & Materials Science Department - MS 321  
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### **ICHMT Secretary-General:**

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**PRELIMINARY APPLICATION FORM**

TMNN-2011, International Symposium on Thermal and Materials Nanoscience and Nanotechnology

Title: \_\_\_\_\_ Name, Surname: \_\_\_\_\_

Affiliation: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_

- I plan to attend the symposium       I plan to submit a paper

Tentative title of paper: \_\_\_\_\_  
\_\_\_\_\_

I shall be accompanied by \_\_\_\_\_

I am interested in the possibility of a post-conference tour in Turkey for \_\_\_\_ persons \_\_\_\_ to Istanbul \_\_\_\_ or to Cappadocia  
(Please indicate one or the other as the tours will be at the same time)

\* Please fill in and send this form by email to [ichmt@ichmt.org](mailto:ichmt@ichmt.org) or by fax +90 312 210 1429. Note that this is only a preliminary info. There will be a full registration form on the Web site, <http://www.ichmt.org>, later on.