

**Call for**  
***Opinion Papers & Original Research Articles***  
**to be published in a special issue of**  
***Nanoscale and Microscale Thermophysical Engineering (NMTE)***

***Introduction***

Traditionally, meetings in the US-Japan series have been followed with a workshop report and original research articles published in *Nanoscale and Microscale Thermophysical Engineering (NMTE)*. Usually the workshop report summarizes all sessions and is a single long article (typically 25 authors and 25 pages).

For the 2014 meeting, we are aiming for a more critical perspective on selected topics which are part of the US-Japan meeting. Therefore, after discussions with the Editor-in-Chief of *NMTE*, Prof. Li Shi, we are soliciting both *Opinion Papers* and *Original Research Articles* to be published in a special *NMTE* issue to highlight the research topics discussed in the 8<sup>th</sup> US-Japan joint seminar.

***Scope and Coverage***

*Opinion Papers or Topical Reviews:* These are forward-looking reviews of timely and important research topics. These reviews often contain some significant aspect of the authors' own analysis and opinions, so that they are essentially opinion papers. Each article should offer a critical perspective, and should *not* be restricted to purely summarizing some number of conference presentations. The articles can comment on the themes of research and what was presented, but also other related work outside of the conference.

*Original Research Papers:* Related to work presented at the US-Japan meeting, or on similar topics, are also invited.

***Peer Review***

All articles will undergo peer review prior to publication in *NMTE*.

***Publication Timeline & Rapid Dissemination***

*October 1* is the targeted submission date for all manuscripts, to enable rapid publication in early 2015.

To promote rapid and broad dissemination, *NMTE* has implemented an accepted manuscript online (AMO) publication model of Taylor & Francis, the publisher of *NMTE*. It now takes less than 4 months between original manuscript submission and AMO publication for papers that do not require significant

changes from the authors' side. The publisher now offers free open access to noteworthy articles specified by the *NMTE* Editorial Board, and allows authors to post the authors' version of the accepted manuscripts on other websites as long as the DOI of the accepted paper is included. In addition, the *NMTE* Editorial Office can help the authors to send a free electronic copy of the published paper to the email addresses of up to fifty other researchers identified by the authors.

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## ***Examples of Possible Themes***

*These are just a few ideas, and interested authors are specifically encouraged to propose any topic or set of topics they are most interested in.*

### Conduction

- Modeling advances (1st principles, MD, BTE, ...)
- MFP Spectroscopy: Modeling and Experiments
- 1D (NW, CNT)
- 2D (graphene and beyond)
- Nanobulk
- Polymers / Hybrids
- Interfacial Effects
- Spin & Magnon Effects (beyond electrons & phonons)
- Coherence Effects

### Radiation Heat Transfer

Nanofluidics, Nanofluids, Phase Change

Biology and Nanoscale Transport

Reacting Systems. Fuel cells, etc.

### Measurement Advances

- Scanning probe microscopy
- Mean free path spectroscopy
- Calorimetry

Translation of academic advances into practical applications

### Technology Drivers

- Energy Conversion (PV, TE, ...)
- Information Technology (HAMR, Transistors, Phase Change Memory, ...)

Historical perspective on the US-Japan seminar series