

We are indeed delighted in bringing out this special issue highlighting some of the papers presented at the ASME Eighth International Conference on Nanochannels, Microchannels, and Minichannels, also known as ICNMM2010. The conference was hosted by the ASME in conjunction with the 3rd Joint US-European Fluids Engineering Summer Conference held at Fairmont Queen Elizabeth Hotel in Montreal, Canada during Aug. 1–5, 2010.

The conference offered truly an interdisciplinary research setting with participation by researchers from over 25 countries. Cutting edge research was showcased in diverse areas such as traditional heat and mass transfer, lab-on-chip, sensors, biomedical applications, micromixers, fuel cells, and microdevices. Selected papers in the field of heat transfer and fluid flow from this conference, along with some papers dealing with microchannels submitted directly to the *Journal of Heat Transfer* are included in this special volume.

There are ten papers included in this special issue. They relate to thermal transport across solid-solid interfaces, single-phase developing flows under H2 boundary condition and axial conduction effects in microchannels, Joule-Thompson micro-refrigerator, flow boiling and CHF in microchannels, gas microflows in the slip regime, jet impingement boiling, and heat transfer to suspensions of microencapsulated phase change materials. These papers represent some of the current advances made in this field of microchannels and are expected to provide guidance to researchers.

The guest editors for this special ASME *Journal of Heat Transfer* issue are thankful to all authors for participating enthusiastically in this conference series. Special thanks are due to the authors of the papers in this special issue. The authors have worked diligently in meeting the review schedule and responding to the reviewers' comments. These papers have undergone the thorough review process of the *Journal of Heat Transfer*. The reviewers have played a great role in improving the quality of the papers. The editors are thankful to them for their valuable contribution behind the scenes.

We would like to thank the Editor of the *Journal of Heat Transfer*, Terry Simon, for initiating the special issue and enthusiastically supporting this effort. Without his active support, this issue would not have been possible. Thanks are also due to Lesley Hancock for her diligent support during the extensive review process.

Satish Kandlikar
RIT, Rochester, NY

Moo-Hwan Kim
POSTECH, Pohang, South Korea

Peter Stephan
Technische Universitat Darmstadt, Germany