Special Issue

Advances in Micro-/Nanoscale Flow and Phase-Change Heat Transfer

Message from the Guest Editors

This Special Issue aims to aggregate cutting-edge investigations into the fundamental mechanisms, numerical simulations, experimental methods, and practical applications of micro- and nanoscale flow and phase-change heat transfer, thus facilitating interdisciplinary collaboration to overcome existing limitations and outline future research avenues. The purview of contributions includes, but is not limited to, the following areas:

- Fluid dynamics in microchannels and nanochannels:
- Boiling, condensation, and evaporation in micro- and nanoscale confinements;
- Thermal properties of phase-change materials at diminutive scales;
- Interfacial effects and wettability impacts on heat transfer efficiency;
- Thermal management in microelectronics and MEMS/NEMS devices:
- Multiphase flow modeling and simulation at microand nanoscale levels;
- Innovative experimental methodologies for micro- and nanoscale thermal-fluid assessments;
- Applications in energy harvesting and cooling systems.

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Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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