Special Issue

Heat and Mass Transfer in Microchannels

Message from the Guest Editors

The miniaturization of components in mechanical and electronic equipment and systems is becoming increasingly popular in recent decades. Heat and mass transfer processes, usually accompanied by multiphase flow, are crucial for the normal operation of such micro/nano equipment and systems and thus attract a great amount of attention. Great effort has been devoted to deepening our understanding of the complex heat and mass transfer processes and advancing the development of related applications in microchannels. For example, phase change (e.g., boiling and condensation), nanofluids, and micro-/nano-structured surfaces are applied to enhance heat transfer and achieve a potentially higher critical heat flux. The aim of this Special Issue is to present recent advances in heat and mass transfer in microchannels, including but not limited to the associated theoretical analyses, experimental measurements, numerical simulations, and practical applications.

Guest Editors

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Deadline for manuscript submissions

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