



water



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Thermal Management Based on Water: From Mechanism to Application

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Message from the Guest Editors

Thermal management plays an important role in numerous energy-related systems and industrial applications, while water is widely used as the working medium for thermal management due to its relatively high thermal conductivity and low viscosity. In addition to single-phase convective heat transfer, water has also been utilized in phase-change processes, including boiling, evaporation and condensation, for efficient energy transport. Despite the massive efforts of academic researchers and industry, the underlying mechanisms of water-cooling processes, especially those involving phase change, remain to be elucidated due to the vast complexity of the heat transport and potential phase-transition processes. Additionally, the promotion and further enhancement of thermal management applications based on water are worth studying. This Special Issue plans to provide an overview of the most recent advances in water-related thermal management applications in diverse areas and their theoretical mechanisms.

[...]

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Message from the Editor-in-Chief

In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

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