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Advances in Two-Phase Heat Transfer Enhancement Technologies and Applications

Guest Editors:

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Deadline for manuscript submissions:
closed (20 May 2022)

Message from the Guest Editors

Heat transfer enhancement has always been an area of active research due to its importance in improving the performances of macro- and micro-devices, its contribution to energy conservation and its role in sustnability. One branch of heat transfer that has received significant interest recently involves the use of two-phase flow as a mechanism for heat transfer enhancement, including but not limited to gas–liquid (bubbly) flow, condensation heat transfer, flow boiling in channels and thermal energy storage. A substantial number of cooling systems that rely on two-phase flow techniques can be found in the industry today, such as in heat exchangers, solar power plants, chemical processes, aeronautics, nuclear and power generation plants, the petroleum industry, microchannels, food processing industries and many more.

In this Special Issue of *Applied Sciences*, we invite submissions exploring recent advancements in heat transfer enhancement technologies that covers all aspects of two-phase heat transfer techniques. We welcome both experimental and theoretical studies, as well as comprehensive reviews.

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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