Special Issue

Latest Advances of Multiphase Flow and Heat and Mass Transfer

Message from the Guest Editors

Multiphase flows, involving the simultaneous transport of multiple phases such as liquids, gases, and solids, play a pivotal role in various engineering and natural systems. Understanding the intricacies of multiphase flow phenomena is crucial for optimizing processes in diverse fields including aerospace engineering, chemical engineering, environmental science, energy systems, and biomedical engineering. The aim of this Special Issue is to highlight the latest advancements in the understanding, modeling, simulation, and experimental investigation of multiphase flow dynamics, as well as heat and mass transfer phenomena. We seek to gather contributions that explore novel methodologies, theoretical frameworks, numerical techniques, and experimental approaches to address key challenges in this interdisciplinary field. Topics of interest include, but are not limited to, the following:

- Multiphase flow and reactive flow with heat and mass transfers;
- Advances in multiphase flow modeling and high-fidelity simulation techniques;
- Heat and mass transfer enhancement;
- Applications of multiphase flows in aerospace, energy, environmental, and biomedical engineering;

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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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