Special Issue

Heat and Mass Transfer Processes in the Different Scales and Fields Applications

Message from the Guest Editor

Understanding the thermal and mass transport phenomena that occur at interfaces enables the advancement of technologies related to energy conversion, the processing of materials, microfluidics, the cooling of electronics, and biomedical applications. Recent developments have significantly enhanced our ability to characterize, simulate, and manipulate interfacial transport mechanisms at the micro- and nano-scales. The insights emerging from theoretical models, numerical simulations, and experimental techniques have enabled the more precise control of energy and mass transport across interfaces, providing new opportunities for innovation in multiple areas of science and engineering. The scope of this Special Issue includes, but is not limited to, the following topics:

- Molecular-scale interfacial transport phenomena;
- Heat and mass transfer in micro/nano-fluidic systems;
- Thermodynamics and kinetics of interfacial phase changes;
- Interfacial transport mechanisms in energy storage and conversion systems;
- Enhanced heat and mass transfer by micro/nano-structured interfaces;
- Experimental characterization techniques for interface transport phenomena;

Guest Editor

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Message from the Editor-in-Chief

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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