

Special Issue

Enhanced Heat and Mass Transfer in Process Systems and Oil and Gas Pipelines

Message from the Guest Editor

The theme of the paper may relate to theoretical, experimental or numerical studies investigating phenomena related to heat and mass transfer. Target topics include single-phase and multiphase flows in pipes, mixers, cyclones, and other separators, as well as open channels, with heat transfer in these applicable systems.

Novel instrumentation and computational fluid dynamics (CFD) of these systems based on standard techniques (e.g., PIV and RANS modelling, respectively) will be of immense interest to readers. CFD work with commercial software should include deep analysis of the results, and studies using open-source codes are encouraged.

Works that examine phenomena in renewable energy systems are also strongly encouraged.

We welcome review papers or regular papers based on applied or fundamental studies. Physical and mathematical modelling including machine learning is of interest, as well as field case studies. For example, understanding the mechanisms of boundary layer interaction with a functional surface and the optimisation of a pipeline for heavy oil transport or the design of novel channels which have important environmental applications.

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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