Special Issue

Advances in the Thermal Hydraulics of Reactor Engineering and Reactor Safety Analyses

Message from the Guest Editors

The most crucial factor for fission nuclear energy is reactor safety. Thermal hydraulics continues to be an important area of exploration when it comes to comprehending the safety operation and design of nuclear systems. In addition, the technology for reactor accident (flow boiling crisis, flow instability, and loss of coolant accidents) mitigation and prevention is necessary for the system's optimization and safety assessments of nuclear power plants. The reliability of thermal-hydraulic computer codes in predicting consequences of severe accidents and the specification of appropriate accident management strategies are main challenges in mitigating potential severe accidents in nuclear safety analyses. This Special Issue invites all researchers from nuclear reactor academia and industry to share their latest important results to advance the fields of thermal hydraulics and reactor safety. Topics of interest include but are not limited to Nuclear thermal hydraulics; Nuclear safety analysis; Thermodynamics; Fluid mechanics; Heat transfer; Flow boiling crisis; Flow instability; Loss of coolant accident; Computational fluid dynamics; Severe accident analysis.

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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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