Special Issue

Advances in Nuclear Energy: Recent Progress on Thermal Hydraulics in Nuclear Reactors Multiphysics Applications and Coupling Schemes

Message from the Guest Editors

The accurate prediction of nuclear thermal hydraulics behaviour is a fundamental, but important issue for nuclear reactor design and safety analysis. Comprehensive high-fidelity thermal hydraulics modelling is a powerful numerical tool for detailed analysis of current and advanced reactor designs. Moreover, thermal hydraulics usually couples with other physical fields, such as neutronics, mechanics, chemistry, etc., leading to a comprehensive large-scale nonlinear system. This is still a challenging task in the nuclear engineering community. With the development of computational capability, there has been exponentially growing interest in topics related to advanced numerical methods and tools in thermal hydraulics modelling and its coupling problems to pursue a realistic description of the physical behaviour without conservative assumptions. This Special Issue invites all researchers on nuclear reactors to share their latest and significant achievements and promote development in the area of thermal hydraulics and multiphysics coupling modelling.

Guest Editors

Dr. Han Zhang

Prof. Dr. Annalisa Manera

Prof. Dr. Raad Issa

Deadline for manuscript submissions

closed (31 March 2023)

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/si/130714

Energies
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
energies@mdpi.com

mdpi.com/journal/energies

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/journal/energies

About the Journal

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.

Editor-in-Chief

Prof. Dr. Enrico Sciubba
Department of Mechanical and Industrial Engineering, University Niccolò Cusano, 00166 Roma, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, RePEc, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

CiteScore - Q1 (Control and Optimization)

MDPI