Special Issue

Nuclear Energy Power: Innovations in Nuclear Reactor, Fuel Cycles, and Waste Management

Message from the Guest Editor

The life-cycle greenhouse gas emissions of nuclear power plants are very close to those of hydropower and wind, making it a sustainable and clean source of energy that can supply the needs of industry and achieve climate goals. Like all electricity generation technologies, including renewable energy, nuclear energy generates waste. This Special Issue will present research on innovations in nuclear reactors, fuel cycles and waste management, as well as discuss advanced reactors' energy efficiency and safety. Topics of interest for publication include, but are not limited to, the following:

- The role of new-generation reactors in future electricity generation;
- The key chemical and engineering aspects related to the development of Generation III+ and IV reactors;
- Chemical and engineering aspects related to SMR development;
- The safety of the advanced nuclear fuel cycle;
- The challenges associated with reprocessing fuel used in advanced reactors;
- novel strategies for radioactive waste management;
- The advanced protection of the radioactive waste in disposal and storage;
- Challenges associated with the management of radioactive waste generated by SMRs.

Guest Editor

Dr. Katarzyna Kiegiel

Centre for Nuclear Technology Applications, Institute of Nuclear Chemistry and Technology, 16 Dorodna, 03-161 Warszawa, Poland

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

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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.

Editor-in-Chief

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

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