Special Issue

Energy Storage Systems and Conversion Processes

Message from the Guest Editors

Energy storage is a crucial element in the transformation and decarbonization of the world economy, especially power generation systems. The whole concept of a green deal and the increase of renewables in an energy mix depend on high capacity and reliable energy storage and conversion systems. While electricity is the most demanded and entropy free form of energy, its storage has not been solved on a mass scale. Energy storage and transformation processes are key elements in modern co- and tri-generation, electromobility, zero emission transport, production of “green” hydrogen, ammonia and methane. The critical issues are high energy density, efficiency of transformation, static and dynamic characteristics of loading and unloading processes, safe operation of energy magazines and environmental concerns.

This Special Issue aims to collect original research or review articles on different concepts of energy storage and transformation processes, both from a fundamental and an applied point of view. Different types of energy recovery, transformation and storage concepts and systems will be considered.

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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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