

Special Issue

Advances in Research on Phase Change Materials for Thermal Energy Storage Applications

Message from the Guest Editors

Successful implementation of new technologies that rely on the use of renewable energy requires the use of thermal energy storage to reduce the mismatch between energy supply and demand. The use of phase change materials is an attractive option to achieve high energy storage density and near-isothermal power supply. Phase change materials can be used for thermal energy storage at different temperature levels in many applications, both in buildings and in industry. The proper design and implementation of the system, its economic feasibility, as well as the reliability of system control strategies are key aspects related to the use of thermal energy storage through phase change materials. This Special Issue aims to encourage researchers to submit innovative proposals and solutions to address one or more of the abovementioned aspects.

- thermal energy storage
- phase change materials
- renewable energy
- energy efficiency
- economic feasibility
- energy savings
- experimental analysis
- numerical simulations

Guest Editors

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Deadline for manuscript submissions

closed (15 December 2025)



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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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