

Special Issue

Sustainability and Innovation in Phase Change Materials for Efficient Thermal Energy Storage

Message from the Guest Editors

This Special Issue seeks to highlight the latest innovations and developments in phase change materials for thermal energy storage. By gathering cutting-edge research and review articles, we aim to provide a comprehensive overview of the field, offering insights into novel material designs, system integration strategies, and real-world applications. Potential topics include, but are not limited to, the following:

- Development of new PCMs for enhanced thermal energy storage;
- Nanocomposites and hybrid materials for PCM applications;
- Advanced encapsulation techniques for PCMs;
- Improving thermal conductivity and phase transition properties;
- Long-term performance and reliability of PCM-based systems;
- Environmental and sustainability assessments of PCM technologies;
- Integration of PCMs in buildings, industrial processes, and renewable energy systems;
- Economic analysis and scalability of PCM thermal energy storage;
- Case studies and real-world applications of PCM technologies;
- Regulatory frameworks and policies for PCM deployment.

Guest Editors

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Prof. Dr. Khadija Choukairy

Deadline for manuscript submissions

closed (31 December 2025)



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About the Journal

Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in Sustainability, an international open access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. The journal publishes original research articles, reviews, conference proceedings (peer reviewed full articles) and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Editor-in-Chief

Prof. Dr. Steve W. Lyon

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