Special Issue

Emerging Trends in Phase Change Materials for Energy Storage and Conversion

Message from the Guest Editors

Phase Change Materials (PCMs) have garnered significant attention in recent years due to their remarkable ability to store and release energy during phase transitions. This Special Issue aims to provide a platform for researchers and experts to share their latest findings, breakthroughs, and innovations in the realm of PCMs.

Topics include, but are not limited to, the following:

Novel synthesis methods and characterization techniques for PCMs;
Advanced applications of PCMs in thermal energy storage systems;
PCM-enhanced heat transfer fluids for industrial processes;
PCMs in solar thermal energy storage and concentrated solar power;
PCM-based energy storage for sustainable building technologies;
PCMs in advanced cooling technologies for electronics;
PCMs in renewable energy conversion systems;
PCMs for thermal regulation in smart textiles;
PCM applications in energy-efficient data centers;
Bio-based and environmentally friendly PCMs for energy storage. We invite researchers to submit their original research articles, reviews, and short communications that contribute to the progress of PCM technologies for energy storage and conversion.

Guest Editors

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Deadline for manuscript submissions

closed (20 March 2024)

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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