

Special Issue

Advancement in Phase Change Material Technologies

Message from the Guest Editor

This Special Issue primarily focuses on the advancement of the application of Phase Change Materials (PCMs) in systems for thermal energy management as well as for thermal energy storage. PCM is the key component for the development of sustainable solutions in engineering systems, and PCM technologies are an active scientific research field for innovation. Enhancement of the material properties of PCMs, synthesis of PCM-based novel composite materials, and enhancement of the efficiency of PCM-based systems are essential for the novel optimal design of energy systems. This Special Issue includes but is not limited to the following topics:

- Advanced phase change materials;
- Modeling aspects of phase change materials;
- Phase change materials in building components;
- Sustainable solutions with phase change materials;
- Micro/nano encapsulation;
- Passive cooling/heating;
- Multiscale modeling of phase change material-based composite materials;
- Phase change material-based smart composites;
- Physical/thermal/mechanical characterization of novel phase change materials;
- Design and optimization of advanced phase change material-based energy systems.

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Deadline for manuscript submissions

closed (30 June 2021)



Applied Sciences

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CiteScore 5.3



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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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