



Applications of Phase Change Materials (PCM) in Concrete Structures: Latest Advances and Prospects

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Message from the Guest Editors

Dear Colleagues,

Nowadays, the building sector is one of the most dominant energy consumers. It is critical to enhance the energy efficiency of buildings to mitigate global warming. In the last decade, advances in thermal energy storage (TES) techniques using phase change material (PCM) have gained much attention among researchers, mainly to reduce energy consumption and to promote the use of renewable energy sources such as solar energy. PCM technology is one of the most promising technologies available for the development of high performance and energy-efficient buildings and, therefore, considered to be one of the most effective and ongoing fields of research.

This Special Issue aims to cover recent advances in the development and application of phase change materials in concrete structures and deliberate over what can best be done to leverage the opportunities.

Proposed Topics:

- PCM composites;
- PCM integration methods;
- PCM-based thermal energy storage systems;
- PCM application in cement-based materials;
- PCM energy geostructures;
- Reliability of PCM performance;
- Simulation and modeling;
- Economic and environmental evaluation.





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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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