Special Issue

Recent Developments in Phase Change Materials for Energy Storage Applications

Message from the Guest Editor

The development of society is closely related to the generation and use of energy. However, the main drawbacks of conventional energy sources, such as fossil fuels, are polluting emissions and environmental problems. For this reason, a transition towards renewable energies, which exploit natural resources to produce clean energy, is promoted by different scientific communities and governments. In particular, the use of Thermal Energy Storage (TES) systems is attracting considerable attention. TES systems can be classified into two different categories: sensible and latent heat storage. While in the former, the stored energy is related to the temperature difference undergone by the storage medium, in the latter, the energy storage depends mainly on the latent heat of Phase Change Materials (PCMs). Hence, latent heat-based systems provide a major capability of energy storage density. In this spirit, this special issue aims to provide an overview of the most recent advances in PCMs for energy storage systems.

Guest Editor

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