Special Issue

Phase Change Materials and Storage Applications

Message from the Guest Editors

Thermal energy storage (TES) has been proven to be a technological solution to decrease energy consumption and CO2 emissions towards NetZero policies. TES can overcome the temporal and geographical mismatch faced by other technologies. Among TES technologies, latent heat TES, which uses phase change materials (PCMs), can store and deliver heat at a quasi-isothermal temperature. For decades, different PCMs (organics, inorganics, eutectics) have been developed, studied, and tested under operational conditions. However, recent advances have shown improved thermophysical properties and heat transfer behaviour following different strategies such as including the use of fins, dispersion of nanomaterials, or encapsulation. This Special Issue aims to provide up-to-date studies on the integration of PCMs in different storage applications, where PCM development has improved the system performance. Original research articles (experimental or numerical) and reviews are welcome. We look forward to receiving your contributions.

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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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