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.

Guest Editors

Dr. Jose I. Prado
CINBIO, Grupo GAME, Departamento de Física Aplicada, Universidade de Vigo, 36310 Vigo, Spain

Dr. M. Elena Navarro Rivero
Birmingham Centre for Energy Storage, School of Chemical Engineering, University of Birmingham, Birmingham B15 2TT, UK

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Materials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

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Message from the Editorial Board

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.

Editors-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Prof. Dr. Yuguang Ma
State Key Laboratory of Luminescent Materials and Devices, South China University of Technology, Guangzhou 510640, China

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