



an Open Access Journal by MDPI

Materials for Thermochemical Energy Storage

Guest Editor:

Dr. Vincenza Brancato

Consiglio Nazionale delle Ricerche—Istituto di Tecnologie Avanzate per l'Energia "Nicola Giordano", 98126 Messina, Italy

Deadline for manuscript submissions: closed (20 April 2022)

Message from the Guest Editor

Dear Colleagues,

Nowadays, the reduction of greenhouse gas emissions is a priority in the energy research field and the substitution of fossil fuels with renewable energy sources seems to be crucial. Nevertheless, the mismatching between the solar energy supply and the demand must be overcome using energy storage systems. The storage technology can be based on sensible, latent or thermochemical heat. Thermochemical energy storage (TCS) uses the reaction enthalpy of reversible chemical reactions and this technology offers higher advantages compared to the others. It provides much higher storage capacities per mass or volume compared to sensible or latent heat storage and can store the heat for infinite time without insulation, also permitting heat transport. In such a scenario, studies on thermochemical storage materials are the priority. The optimized material permits increasing the volumetric energy storage capacity and improving the performance of the storage system. The aim of this Special Issue is to collect the best papers on the development, improvement and enhancement of materials for thermochemical storage.

Dr. Vincenza Brancato









an Open Access Journal by MDPI

Editor-in-Chief

Message from the Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy 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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), Inspec,

CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q1 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

Contact Us

Applied Sciences Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/applsci applsci@mdpi.com X@Applsci