Special Issue

Modern Trends and Applications in Thermal Energy Storage

Message from the Guest Editors

Thermal energy storage (TES) is an important technology that enhances energy efficiency, improves renewable energy utilization, and mitigates the mismatch between energy supply and demand. By storing excess thermal energy for later use, TES enables more effective energy management in renewable energy systems, industries, buildings, and power grids. However, developing efficient TES systems requires the balancing of costs, performance, and environmental impact.

This Special Issue welcomes both experimental and theoretical studies on TES. Topics of interest include, but are not limited to, the following:

- Thermal energy storage systems;
- Application of TES in electric vehicles, electronic devices, buildings, and power systems;
- Thermal energy storage media and materials;
- Heat transfer mechanisms in TES systems;
- Enhancement techniques for improving TES efficiency;
- The integration of TES with other energy systems;
- Thermal energy management strategies using TES.

Guest Editors

Prof. Dr. Xiaolin Wang
School of Engineering, University of Tasmania, Hobart, TAS 7001, Australia

Dr. Eric Hu
School of Electrical and Mechanical Engineering, The University of Adelaide, Adelaide 5005, Australia

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

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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.

Editor-in-Chief

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

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