

## Special Issue

# New Trends in Thermal Energy Storage and Its Applications

### Message from the Guest Editors

This Special Issue aims to explore new trends in thermal energy storage and its applications, highlighting innovative solutions for capturing, storing, and utilizing it effectively. It seeks to provide a platform for the dissemination of knowledge and discussions on advances in thermal energy storage technologies, materials, and applications, as well as to identify gaps and critical issues in current research toward improving the practicality of thermal energy storage systems. The topics of interest for publication include, but are not limited to, the following:

- Phase-change materials and their applications to thermal energy storage;
- Sensible heat storage media;
- Thermochemical heat storage systems;
- Hybrid thermal energy storage systems;
- Nano-enhanced materials for thermal energy storage;
- Underground thermal energy storage;
- Solar-thermal energy storage;
- Integration of thermal energy storage with renewable energy sources;
- Thermal management and efficiency improvements in thermal energy storage;
- Design and optimization of thermal energy storage systems;
- Practical applications of thermal energy storage.

### Guest Editors

Dr. Sai Liu

Dr. Emre Artun

Dr. Faras Al Balushi

### Deadline for manuscript submissions

30 November 2025



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Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[processes@mdpi.com](mailto:processes@mdpi.com)

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### Editor-in-Chief

Prof. Dr. Giancarlo Cravotto

Department of Drug Science and Technology, University of Turin, Via P. Giuria 9, 10125 Turin, Italy

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