

Special Issue

Advanced Thermal Energy Systems for Industrial Decarbonization

Message from the Guest Editors

Industrial decarbonization is recognized as one of the most important challenges in the global energy transition. While significant progress has been achieved in the decarbonization of electricity generation, industrial sectors still account for a substantial share of global energy consumption and greenhouse gas emissions, largely due to their dependence on thermal energy processes. Consequently, the development and deployment of advanced thermal energy systems are essential to improve energy efficiency, reduce fossil fuel consumption, and support the transition toward low-carbon industrial production. This Special Issue aims to provide a platform for researchers, engineers, and industry experts to present the latest developments in advanced thermal energy systems for industrial decarbonization. Contributions addressing both fundamental research and practical applications are welcome, including experimental investigations, numerical simulations, system modeling, optimization studies, and real-world industrial case studies.

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Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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