

Special Issue

Advanced Materials and Systems for Sustainable Energy Solutions

Message from the Guest Editors

This Special Issue aims to explore how material engineering—through the modulation of size, shape, composition, and strain—impacts the performance of nano- and microstructured materials across diverse energy-related applications. Topics include, but are not limited to, energy conversion mechanisms based on piezoelectric, thermal, magnetic, magnetoelectric, pyroelectric, electrocaloric, magnetocaloric, chemical, and hybrid functionalities. These materials are highly relevant for the development of efficient sensors, actuators, and transducers. Additionally, this Special Issue will cover advances in electrical energy storage technologies and innovative strategies to enhance their performance. Contributions are welcome in areas such as ferroelectric energy storage, electrode and electrolyte materials for batteries and supercapacitors, solid-state hydrogen storage systems, nanostructured solar cells, and heterogeneous catalysis. We invite your original research articles and comprehensive reviews that contribute to this rapidly evolving and impactful field.

Guest Editors

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Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in Sustainability, an international open access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. The journal publishes original research articles, reviews, conference proceedings (peer reviewed full articles) and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

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