

Special Issue

Sustainable Thermal Management, Energy Storage, and Renewable Energy Conversion for a Sustainable AI-Driven Era

Message from the Guest Editors

With the advent of the AI era, global energy demand is undergoing unprecedented growth, driven not only by the expansion of data centers, high-performance computing facilities, and intelligent manufacturing systems, but also by the continuous transformation of industrial, transportation, and residential sectors. This rapid escalation in energy consumption amplifies the urgency of developing sustainable, efficient, and adaptable technologies for heat management, energy storage, renewable energy utilization, and energy-saving applications. Against this backdrop, this Special Issue of *Sustainability* will focus on innovative research that addresses the intertwined challenges of thermal regulation, multi-form energy storage (thermal, cooling, electrical), renewable energy conversion, and advanced energy efficiency strategies.

Guest Editors

Dr. Zengguang Sui

Dr. Jiaqiang Wang

Dr. Zhixiong Ding

Dr. Yunren Sui

Deadline for manuscript submissions

31 August 2026



Sustainability

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 7.7



mdpi.com/si/251261

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

[mdpi.com/journal/
sustainability](https://mdpi.com/journal/sustainability)





Sustainability

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 7.7



[mdpi.com/journal/
sustainability](https://mdpi.com/journal/sustainability)



About the Journal

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.

Editor-in-Chief

Prof. Dr. Steve W. Lyon

School of Environment and Natural Resources, Ohio State University,
Columbus, OH 43210, USA

Author Benefits

Open Access:

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

High Visibility:

indexed within Scopus, SCIE and SSCI (Web of Science), GEOBASE, GeoRef, Inspec, RePEc, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Environmental Studies) / CiteScore - Q1
(Geography, Planning and Development)