

Special Issue

Sustainable High-Efficiency Solar Utilization and Integration Technologies

Message from the Guest Editors

Dear Colleagues:

Solar energy is vital for global sustainability and carbon neutrality, but its intermittency and distribution limit efficient utilization and large-scale integration, requiring both technology advances and systematic integration strategies. This Special Issue, “Sustainable High-Efficiency Solar Utilization and Integration Technologies,” showcases recent advances in solar utilization and its integration into complex energy systems, focusing on efficiency, flexibility and sustainability. Relevant fundamental and applied research is welcome. Key topics include (but are not limited to):

- High-efficiency solar conversion technologies
- Solar in integrated/hybrid energy systems
- Solar-assisted heating, cooling and heat pump systems
- Solar integration with storage and other renewables
- Modelling and optimization of solar-integrated systems
- Operation and management of solar-based systems

We welcome original research and reviews focusing on theory and practice, emphasizing sustainability and system integration, to promote collaboration and advance solar technologies for a sustainable energy future.

Guest Editors

Dr. Yikai Wang

School of Renewable Energy, Hohai University, Nanjing 211098, China

Dr. Jialing Xu

School of Sustainable Energy and Resources, Nanjing University, Suzhou 215163, China

Deadline for manuscript submissions

14 February 2027



Sustainability

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 7.7



mdpi.com/si/272113

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)