

Special Issue

Materials for a Sustainable World: Gas Sorption, Energy Storage, and Green Chemical Transformations

Message from the Guest Editors

The increasing demand for clean energy technologies and effective environmental management has intensified the need for advanced materials that support sustainable development. This Special Issue focuses on the design, synthesis, and application of sustainable materials—particularly those contributing to gas capture, separation, storage, and conversion, as well as environmentally friendly nanomaterial synthesis.

We invite contributions that explore materials and processes relevant to gas sorption and storage, including, but not limited to, carbon dioxide (CO₂) capture and conversion, ammonia (NH₃) sorption, hydrogen (H₂) storage, and the reduction of nitrogen oxide (DeNOx) systems. Research on porous materials such as MOFs, COFs, zeolites, nano carbon materials including graphene, and stability under practical conditions are particularly welcome. Focusing on the following key topics:

- Sustainable materials
- Clean energy and energy storage
- Gas sorption
- Green chemistry and transformations
- Nanomaterials
- Recyclability of materials
- Life-cycle assessments (LCA)

Guest Editors

Dr. Ivana Mitar

Department of Chemistry, Faculty of Sciences, University of Split, 21000 Split, Croatia

Dr. Zhejian Cao

Department of Life Sciences, Chalmers University of Technology, SE-41296 Gothenburg, Sweden

Deadline for manuscript submissions

31 January 2027



Sustainability

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 7.7



mdpi.com/si/261187

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)