

Special Issue

Waste and Mineral-Derived Functional Materials for CO₂ Capture, Catalytic Remediation, and Metal Recovery

Message from the Guest Editors

The Special Issue "Waste and Mineral-Derived Functional Materials for CO₂ Capture, Catalytic Remediation, and Metal Recovery" aims to showcase cutting-edge research combining material engineering, environmental chemistry and sustainable resource processing. We warmly encourage submissions on functional materials derived from waste and minerals, with a particular interest in exploring synergies, kinetic modeling and process optimization. Topics include, but are not limited to:

- Carbon dioxide capture materials derived from industrial waste and minerals
- Artificial mineral carbonation of metal slag and industrial by-products
- Natural mineral-based catalysts for wastewater treatment and antibiotic degradation
- Green leaching and key metal recovery from electronic waste using deep eutectic solvents
- Porous carbon materials derived from low-grade coal and solid waste for energy storage
- Functional materials for energy applications, such as electrochromic and photovoltaic materials
- Dynamics, mechanisms and modeling of the value-added and material transformation processes of waste
- Synergistic strategies for improving the stability, durability and performance of functional materials

Guest Editors

Prof. Dr. Mei Zhang

School of Metallurgical and Ecological Engineering, University of Science and Technology Beijing, Beijing 100083, China

Dr. Xiangtao Huo

School of Metallurgical and Ecological Engineering, University of Science and Technology Beijing, Beijing 100083, China

Deadline for manuscript submissions



Processes

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.7



mdpi.com/si/281991

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

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





Processes

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.7



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



About the Journal

Message from the Editor-in-Chief

You are invited to contribute either a research article or a comprehensive review for consideration and publication in *Processes* (ISSN 2227-9717). *Processes* is published in open access format – research articles, reviews, and other content are released on the internet immediately after acceptance. The scientific community and the general public have unlimited, free access to the content. As an open access journal, *Processes* is supported by the authors and their institutes through the payment of article processing charges (APCs) for accepted papers. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. Giancarlo Cravotto

Department of Drug Science and Technology, University of Turin, Via P. Giuria 9, 10125 Turin, Italy

Author Benefits

Open Access:

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

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, AGRIS, and other databases.

Journal Rank:

CiteScore - Q2 (Chemical Engineering (miscellaneous))