

Special Issue

Energy-Efficient and Sustainable Metallurgical Processes: Towards Carbon Neutrality and Zero Waste

Message from the Guest Editors

Metals are the backbone of modern society and are present in everything from infrastructure to electronics. However, their extraction and processing come at a significant environmental cost, generating carbon emissions and large volumes of waste. As the world moves towards a sustainable future, achieving "zero carbon" and "zero waste" in the metals sector is crucial. This Special Issue requests submissions that address industry-specific challenges and propose solutions that drastically reduce energy- and/or process-related carbon emissions, as well as waste from metal extraction and processing. Original research and reviews in areas such as carbon-neutral extraction, waste minimization and valorization, perspectives on technical challenges and broader inorganic material-related technological challenges preventing the achievement of energy sustainability are also welcome. It is recommended to send a tentative title and a short summary of the manuscript to Energies Editor Ms. Cicilia .

Guest Editors

Dr. Fiseha Tesfaye

Dr. Minkyu Paek

Dr. Mykola Moroz

Dr. Abayneh Getachew Demesa

Deadline for manuscript submissions

25 March 2025



Energies

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 6.2



mdpi.com/si/220050

Energies

MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
energies@mdpi.com

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





Energies

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 6.2



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



About the Journal

Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

Editor-in-Chief

Prof. Dr. Enrico Sciubba

Department of Mechanical and Aerospace Engineering, University of Roma Sapienza, Via Eudossiana 18, 00184 Roma, 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, RePEc, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

CiteScore - Q1 (Control and Optimization)