Special Issue

Sustainable Metallurgical Processes for Metallic Waste Valorization

Message from the Guest Editors

Metallurgical processes and metal waste recovery are necessary and useful, yet they have a significant impact on greenhouse gas (GHG) emissions and therefore on global climate change. Can we process metals and recover metal wastes in a more sustainable way? We are searching for authoritative reviews or reports on new developments relating to but not limited to the following topics:

- Sustainable metallurgical processes;
- Zero waste valorization of metallic residues;
- Technologies for metal waste recovery;
- Bio-sourced materials as combustibles for metallurgical applications;
- Bio-sourced materials as reducing agents for metallurgical applications;
- Thermal conversion processes for the production of bio-sourced materials (torrefaction, pyrolysis, hydrothermal carbonization, gasification,);
- Characterization of carbon-based materials (XRD, FTIR, ATG, SEM-EDX,);
- Environmental and economic assessments: Life cycle assessment and life cycle cost analysis of metallurgical processes.

Authors contributing to this Special Issue are encouraged to present their content also as a webinar that will be part of the DIGISER++ webinar series.

Guest Editors

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Prof. Dr. Stefaan Cottenier

Deadline for manuscript submissions

closed (30 June 2022)

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About the Journal

Message from the Editorial Board

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

Editors-in-Chief

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JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Metals and Alloys)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 18 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2025).

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