

Special Issue

Sustainable Management of Georesources: From Mining and Mine Tailings to Waste Recycling

Message from the Guest Editors

This issue aims to highlight cutting-edge research on the sustainable extraction, processing, and utilization of georesources, with a strong emphasis on reducing the material and carbon footprint of mining operations. It will encompass multidisciplinary research and innovations across the following areas:

Climate-smart mining practices and circular economy frameworks;

Sustainable extraction and processing of critical minerals and metals;

Geotechnical stability and seismic resilience of TSFs; Advanced monitoring, modeling, and risk assessment methods for TSFs;

Tailings reprocessing and valorization of mining waste; Integration of low-carbon technologies and energy-efficient solutions in mining;

Innovations in waste recycling, e-waste processing, and critical element recovery;

Digital technologies, automation, and AI applications in georesource management;

Life cycle analysis (LCA), techno-economic

assessments (TEA), and policy perspectives;

Sustainable mine closure, rehabilitation, and post-mining land use strategies.

We welcome contributions from researchers, engineers, and decision-makers to explore solutions that enable sustainable resource use and minimize environmental liabilities.

Guest Editors

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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. *Sustainability* publishes original research articles, review 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

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