

Special Issue

Advances in Metallurgical Processing and Involved Separation Techniques

Message from the Guest Editor

- The insertion of metals into society through increasingly complex electronic equipment puts even greater pressure on extractive processes from primary sources. At the same time, the decrease in metal content in ores results in increased generation of mining waste, which can also be used as a secondary source of other critical metals.
- Metallurgical processes are important to supply critical metals. However, as residues become more complex, further research is necessary to develop new recycling approaches towards the circular economy and achieve the Sustainable Development Goals from the United Nations.
- This Special Issue aims to address the most recent developments in recycling processes to obtain critical and valuable metals from secondary sources by pyro- and hydrometallurgical techniques, which include pyrolysis, roasting, smelting, calcination, leaching (inorganic and organic acids and alkali), ion exchange separation (resins and solvent extraction), precipitation, ionic liquids, deep eutectic solvents, supercritical fluids, nanohydrometallurgy, and biohydrometallurgy. Moreover, research articles will focus on techniques/processes to achieve sustainable development goals.

Guest Editor

Dr. Amilton Botelho Junior

Department of Materials Science and Engineering, Massachusetts Institute of Technology, Cambridge, DC 02139, USA

Deadline for manuscript submissions

20 March 2026



Processes

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.5



mdpi.com/si/224331

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 5.5



[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))