



## Electrorefining in Sustainable Metals Production

Guest Editor:

**Dr. Jari Aromaa**

Aalto University, School of  
Chemical Engineering,  
Department of Chemical and  
Metallurgical Engineering, PO  
Box 16100, FI-00076 Aalto,  
Finland

Deadline for manuscript  
submissions:

**closed (30 September 2021)**

### Message from the Guest Editor

Dear Colleagues,

World faces growing demand of raw materials and non-ferrous as well as specialty metals. To make metals production more sustainable, it is necessary to use resources efficiently and at the same time develop processes that can treat both complex, low-grade primary materials as well as secondary materials.

Hydrometallurgy is often used for the production of non-ferrous, noble, and specialty metals, and in hydrometallurgical processes electrorefining is often the final step in the production. Electrorefining is efficient in the production of pure metals because only very small amounts of metallic impurities end up in the cathodes.

The general focus of this Special Issue of *Metals* is on papers related to the improvement of production rate, improvement of energy usage, and methods to ascertain product quality. Papers that address the challenges caused by the increasing use of secondary raw materials are encouraged. In this Special Issue, the concept of electrorefining is not limited to traditional aqueous systems, and papers on non-aqueous systems such as ionic liquids and molten salt electrolysis are very welcome.





an Open Access Journal by MDPI

## Editors-in-Chief

### Prof. Dr. Hugo F. Lopez

Department of Materials Science and Engineering, College of Engineering & Applied Science, University of Wisconsin-Milwaukee, 3200 N. Cramer Street, Milwaukee, WI 53211, USA

### Prof. Dr. Yong Zhang

Beijing Advanced Innovation Center of Materials Genome Engineering, State Key Laboratory for Advanced Metals and Materials, University of Science and Technology Beijing, 30 Xueyuan Road, Beijing 100083, China

## 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.

## 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), Inspec, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q2 (*Metallurgy and Metallurgical Engineering*) / CiteScore - Q1 (Metals and Alloys)

## Contact Us

---

Metals Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/metals](http://mdpi.com/journal/metals)  
[metals@mdpi.com](mailto:metals@mdpi.com)  
[X@Metals\\_MDPI](https://twitter.com/Metals_MDPI)