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Advances in the Solvent Extraction of Metals

Guest Editor:

Dr. Davide Ciceri
Department of Materials Science and Engineering, Massachusetts Institute of Technology, Cambridge, CA, United States

Deadline for manuscript submissions:
closed (31 December 2020)

Message from the Guest Editor

The extraction of metals from their ores is at the base of every civilization. Solvent extraction is an industrially relevant technique well-suited for the separation and purification of metals, on the laboratory bench as well as at large scale. With this technique, an aqueous solution containing a metal ion of interest is contacted with an organic solution containing a metal-selective extractant. Although it has been investigated for long time, solvent-extraction systems exhibit unique physicochemical properties which are particularly challenging to elucidate due to the presence of the aqueous/organic interface.

This Special Issue of *Metals* aims to present and discuss the latest advances in all aspects of the solvent extraction of metals. Reviews, articles, and short communications that focus on either fundamental or applied research are equally welcomed. A non-exhaustive list of topics of interest includes approaches to solvent-extraction intensification (energy, water, and chemicals reduction and improved extraction efficiency), interfacial and extractant chemistry, equilibrium and kinetic modelling, analytical techniques, and unit operations.

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Editor-in-Chief

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 Editor-in-Chief

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.

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Contact Us

Metals Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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mdpi.com/journal/metals
metals@mdpi.com
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