Special Issue

Recovery of Valuable Metals from Industrial By-Products

Message from the Guest Editors

Recovery of metal from industrial by-products is one of essential issues for the sustainability of human society. Therefore, the sustainable management of metal resources is critical for addressing many societal challenges we are facing. In recent decades, there have been many efforts to develop novel processes of metal recovery from industrial by-products; however, in actuality, the recovery rates of various metals are much lower compared to our researchers' efforts. This may be caused by a shortage of economic feasibility, the various phases and compositions, and the lower content of valuable metals in the by-products. Even though we are faced with technical and economic issues for the recovery of metal resources, further research is needed on the recovery of valuable metal from industrial by-products based on thermodynamics.

This Special Issue invites research that contributes to the recovery of valuable metals from industrial by-products integrated with critical experiments or aided by novel process. In particular, thermodynamic applications, including pyrometallurgy, extractive metallurgy, and electrochemical processes, are encouraged.

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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.

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