Special Issue

Recent Advances in Green Metallurgy

Message from the Guest Editors

BOF steelmaking slag is the major by-product of the converter steelmaking process and contains large quantiles of valuable components. With the depletion of natural resources and the deterioration of the environment, the recovery of valuable elements and heat from BOF steelmaking slag is attracting more and more attention. The comprehensive utilization of BOF steelmaking slag has become an urgent problem that must be solved for a low-carbon and sustainable steelmaking process. In recent years, promising technologies for utilizing BOF steelmaking slag have been studied and developed, such as heat recovery from molten slag, phosphorus recovery, recycling as flux agents, slag fertilizer, and the rehabilitation of coastal environments. In this Special Issue, we welcome articles that focus on the current state-of-the-art ideas. methods, technologies, equipment, and theories for the efficient utilization of BOF steelmaking slag. It is aimed to promote the development of a circular economy and improve resource utilization efficiency in steel plants.

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Deadline for manuscript submissions

closed (31 October 2023)



Metals

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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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