Special Issue

Advances in Production and Refining of Metals

Message from the Guest Editor

Metals, and especially steel and aluminum, remain the basic materials for the development of today's industries. Metal production technology is governed by certain laws, the optimization of which is a basic prerequisite for increasing process efficiency. Even in the classical metallurgy of iron and steel production, constant innovative tendencies can be observed. These optimization interventions can be applied in the whole complex of metallurgical production—from the production of pig iron, to steel production by oxygen processes, steel production in electric arc furnaces, and especially in the field of secondary metallurgy for liquid steel processing to improve microcleanliness of steel and reduce gas content and other undesirable impurities. The aim of this Special Issue is to present current knowledge and trends in the field of metal production, especially pig iron, steel, and aluminum, technology of their production, the possibility of secondary processing of these metals in liquid state by blowing inert gases, vacuuming, synthetic slag, etc., including physical and numerical modeling of these processes.

Guest Editor

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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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