

Special Issue

Process and Numerical Simulation of Oxygen Steelmaking

Message from the Guest Editors

Despite the fact that oxygen steelmaking is a well-established and dominant steelmaking technology for many years, it is difficult to fully understand this process due to the harsh environment and the extremely complicated physical and chemical phenomena which occur in the process (such as supersonic oxygen jet phenomena), its physical and chemical interactions with molten metal and slag, as well as the melting of scrap and flux, etc. This challenge also involves more precisely controlling and operating the oxygen steelmaking process. The present topic intends to promote research and understanding in the fields of process phenomena, as well as optimization and control of oxygen steelmaking, by employing conventional and innovative technology. The aim of the Special Issue is to present the latest achievements of theoretical, experimental, and numerical investigations, and to provide updates on the state of the art in this regard, providing readers with useful information on recent technologies. It is our pleasure to invite you to submit a manuscript to this Special Issue. Full papers, short communications, and reviews are all welcome for submission.

Guest Editors

Dr. Mingming Li

Dr. Guangsheng Wei

Dr. Chao Chen

Deadline for manuscript submissions

closed (15 April 2024)



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Metals
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
metals@mdpi.com

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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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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

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