Special Issue

Novel Insights into Steelmaking Processes

Message from the Guest Editor

The focus of this Special Issue will be on the actual status and development of the numerical and validation methods and techniques applied to steelmaking processes, and new insights into ongoing technologies will be discussed. Our Special Issue will address a range of relevant topics, including the following:

- Raw materials selection based on modeling approaches for analyzing decarbonization routes;
- Raw materials preparation, sintering, blast furnace and shaf furnace modeling (statistical, continuous, and discrete approaches) focusing on alternatives for the decarbonization of the process;
- Modeling and optimization techniques applied to steelmaking processes;
- CALPHAD and kinetic modeling approaches to steelmaking processes;
- Big Data approaches to process analysis and control;
- Artificial intelligence and expert systems for steelmaking process control;
- New alternative fuels and gases for steelmaking process decarbonization;
- Industrial trials aimed at sustainable developments in the steelmaking process chain.

We look forward to receiving your contributions.

Guest Editor

Prof. Dr. Jose Adilson De Castro

Industrial Metallurgical Engineering School, Federal Fluminense University, Volta Redonda, Rio de Janeiro 27255-125, Brazil

Deadline for manuscript submissions

closed (30 June 2024)

Metals

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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.

Editors-in-Chief

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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