Special Issue

Big Data of Steel and Low Carbon Intelligent Smelting

Message from the Guest Editors

This Special Issue focus on the analysis of state data and image/video streams in the metallurgical reaction process using intelligent algorithms to extract characteristic data and explores the best practice to obtain useful information from the data to strengthen the metallurgical reaction process. With the help of machine vision and other means, research on the metallurgical reaction process has gradually shifted its focus from qualitative, descriptive and local research to precision, quantification and integration. This Special Issue's scope not only includes studies on molecular, atomic and microscopic mineral phase analysis, but also those on the overall development law of the metallurgical reaction process. Theoretical breakthroughs or new ideas for low-carbon metallurgy driven by dual carbon goals are of particular interest. We also welcome research on: 1. intelligent low-carbon ore blending of iron ore powder; 2. integrated treatment of multi-pollutants in sintering flue gas; 3. intelligent ore blending driven by sintering big data; 4. the evolution law of iron ore mineral phase characteristics, etc.

Guest Editors

Dr. Jie Li

Dr. Zhenggen Liu

Dr. Hangyu Zhu

Dr. Hao Liu

Prof. Dr. Chunying Zhang

Prof. Dr. Aimin Yang

et al.

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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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