Special Issue

Green Metallurgy and High-Temperature Process Control: Innovations in Sustainable Techniques

Message from the Guest Editors

The precise, intelligent, and environmentally conscious control of high-temperature processes is now recognized as the key enabler for Green Metallurgy—a paradigm shift towards resource-efficient, low-emission, and economically viable production. This Special Issue, titled “Green Metallurgy and High-Temperature Process Control: Innovations in Sustainable Techniques,” aims to capture the forefront of this transition. We move beyond a focus on material properties to delve into the process innovations, control strategies, and systemic methodologies that make sustainable metallurgy a reality. We welcome contributions that demonstrate significant novelty in process technology, control methodology, or system-level integration. Papers should clearly articulate how the proposed innovation contributes to the core tenets of Green Metallurgy: enhanced process efficiency, reduced environmental impact, and improved economic sustainability.

Guest Editors

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Message from the Editor-in-Chief

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.

Editor-in-Chief

Prof. Dr. Yong Zhang
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