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Oxygen Steelmaking Process

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Deadline for manuscript submissions:
closed (31 May 2022)

Message from the Guest Editor

Oxygen Steelmaking is the dominant process for producing steel. The technology around Oxygen Steelmaking has evolved greatly since pioneering work in Europe in the late 1940s. There have significant developments in lance technology, refractories, sensors and control systems over the last twenty years. This has been coupled with improved scientific understanding of the physical chemistry, kinetics, heat transfer and fluid mechanics of the system. There are still significant challenges in optimizing slag foaming, slag chemistry, scrap melting, post-combustion and control systems. The general shift towards lowering the environmental impact of metal production will also drive innovation in the evolution of the process. This issue will be focused on the most recent developments and examining both technological developments and the underlying scientific issues around these technological challenges. Papers from producers, suppliers and researchers would be most welcome.

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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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Journal Rank: JCR - Q2 (*Metallurgy and Metallurgical Engineering*) / CiteScore - Q1 (Metals and Alloys)

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