



Inclusion Metallurgy

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Message from the Guest Editors

The primary focus of this Special Issue is on recent advances in inclusion engineering that aim at controlling steel cleanliness and microstructure by modeling and experimental work. The particularly interesting research theme of the formation mechanism and evolution control methods of inclusions in the smelting process in laboratory and steel plants is welcomed. The study of the agglomeration and floatation of inclusions and the kinetics of slag adsorption in the process of refining and solidification are also potential themes of contribution.

Topics addressed in this Special Issue may include, but are not limited to, the following aspects:

- Formation/evaluation of inclusions during steel smelting/refining/solidification;
- Multiphase reaction of steel–slag–inclusion–refractory;
- Thermodynamics and kinetics prediction;
- Fundamentals on wettability, contact angle, and surface tension, as well as the related basic database;
- Inclusion metallurgy in clean steel.





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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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