Special Issue

Non-metallic Inclusions in Steelmaking

Message from the Guest Editor

It is well known that non-metallic inclusions in steel influence the performance of steel products. Therefore, the control of inclusions is one of the key tasks in the steelmaking process. Many researchers have investigated the formation, evolution, and removal behaviors of inclusions in steel according to laboratory and industrial experiments as well as numerical modeling. These studies have significantly helped us to improve our understanding of inclusions and further improved steel cleanliness.

This Special Issue aims to collect advances in the field of non-metallic inclusions in steelmaking. Experimental and numerical studies on the behaviors of inclusions in various steel grades, and characterization and control of inclusions in steel at different steelmaking stages, are within the scope of this Special Issue. Topics linked to thermodynamic fundamentals, metallurgical refractories, and alloys focusing on inclusion control in steelmaking are also covered. Both original research articles and reviews on (but not limited to) these topics are welcome. Your contribution to this Special Issue is highly appreciated.

Guest Editor

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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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