

Special Issue

Advanced Tundish Metallurgy and Clean Steel Technology

Message from the Guest Editors

Tundish has been widely used in the continuous casting of steel, aluminum, and copper. In the early 1980s, the concept of tundish metallurgy was put forward by Heaslip and McLean. The tundish metallurgy has developed with the evolution and demand of continuous casting as well as clean steel production. Extensive physical and mathematical model studies on tundish have been carried out. Even larger tundish volume, long refractory service life, stable performance for high-speed casting, uniform temperature control by heating technologies, and flexible flow control for casting speed adjustment are new demands and technologies for tundish. Clean steel production is a systematic and complicated project throughout the whole steel production process. Raw material (ferroalloys), secondary refining, tundish, and continuous casting are all key issues for clean steel production.

In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) tundish metallurgy, secondary refining, continuous casting, clean steel technologies, refractories, converter and electric arc furnace steelmaking, and metallurgical equipment development.

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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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