

## Special Issue

# High-Efficiency and High-Quality Continuous Casting Processes

### Message from the Guest Editors

The focus of this issue is the theoretical and trial investigation of the steel continuous casting process, including high-quality steel casting, high-cleanliness casting, high-speed casting, continuous casting and direct rolling, near-shape continuous casting, and/or special casting for highly alloyed steel. Topics in this field relevant to our Special Issue include, but are not limited to, the following:

- Flow behavior in ladles and tundishes;
- Heat, momentum and mass transfer in a steel matrix from the SEN to crater end, as well as the electromagnetic field and reduction force;
- SEN geometry evaluation and clogging;
- Reaction between steel and slag, and development of mold flux;
- Design and testing of high-efficiency spraying systems in secondary zones;
- Steel solidification process and structure evolution;
- Microstructure and properties of the casting product;
- Defect control and improvement;
- Modeling and operating techniques;
- Trial testing and industrial engineering;
- Big Data approach for process analysis and control;
- Artificial intelligence and expert systems.

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### Deadline for manuscript submissions

closed (5 January 2023)



## Processes

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