



Directional Solidification of Alloys and Advanced Wear-Resistant Materials

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Message from the Guest Editor

Dear Colleagues,

Directional solidification is a crucial process to acquire tailored microstructure and desired properties of alloys. Moreover, the heat treatment of directionally solidified alloys may result in particular precipitates. The directional alloys or coatings overlaid on directional solidification alloys can also generate properties or micro-interfaces, which may improve corrosion, oxidation, wear and lubrication performances.

Advanced directionally solidified alloys should demonstrate diversified functions during wear and corrosion conditions. Structurally achieved functions depend on directional solidification parameters and features. Functions in performance may cover strength, stiffness, thermal shock, etc. Both microstructures and properties of directionally solidified alloys as well as their relationships should be understood and revealed in detail.

This Special Issue aims at the microstructural characters and properties of directional solidification alloys and their wear resistance, including the worn surface and interfaces. The simulation works are also included in this field.





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Message from the Editor-in-Chief

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