Special Issue

Progress of Computational Metal Science and Technology

Message from the Guest Editor

The investigation of metals and alloys has been carried out for hundreds of years. However, there are still many problems that warrant further study and attention. Adopting advanced computational methods to reconsider and reinvestigate the traditional problems in metals and designing high-performance metallic alloys has always been the focus of academic attention. This Special Issue will focus on computational progresses related to the science and technology of metals and alloys. Topics of interest include but are not limited to multi-scale computational methods bridging from first-principle density functional theory to macroscopic finite element computation; machine learning and big data applications in metals and alloys; computational design of new types of metal and alloy; systematically computational simulation of the relationship among composition–structure–properties–service of metals and alloys, and metal processing and forming simulation. Special attention will also be paid to the research of metal structure–function integration, high-entropy alloys, high-performance structural material, new metallic functional materials, etc.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

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.

Editor-in-Chief

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