Special Issue

Research Status and Development of Magnetic Alloys

Message from the Guest Editors

Metamagnetic martensitic transformation, as a classic topic in the field of materials science, has attracted considerable attention for a long time. The use of such transformation not only allows a substantial enhancement in the mechanical properties of structural materials, but also induces some fascinating behaviors to magnetic functional materials. Especiall, the discovery of some related functional activities, such as metamagnetic shape memory effect, magnetocaloric effect, and magnetoresistance, has significantly promoted research progress. This Special Issue aims to provide a dedicated platform for sharing results concerning past accomplishments and future directions in the field of magnetic phase transformation, magnetic functional properties, and magnetic structure of advanced materials. We welcome review papers and original research articles on materials design, microstructural characterization, and property tuning of functional alloys, either by experimental techniques or theoretical approaches.

Guest Editors

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Deadline for manuscript submissions

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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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