



Structural and Functional Performances of Multi-Component Alloys

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Message from the Guest Editors

Multi-component alloys, which often contain multiple phases and elements, offer a wealth of opportunities for tailoring their mechanical, electrical, magnetic, catalytic, and other functional properties to meet the specific requirements of various applications.

Methods for the preparation of multi-component alloys vary widely, including casting, rolling, extrusion, and powder metallurgy. The selection of preparation methods depends on the desired microstructure and properties of the alloys. Heat treatment and surface treatment are also crucial processes that can significantly affect their mechanical and functional properties.

This Special Issue focuses on the latest research and developments in the field of multi-component alloys. We welcome articles on theories, techniques, devices, and simulation methods for the preparation, processing, forming, and failure of multi-component materials.

We believe that this issue will serve as a valuable reference for researchers and practitioners interested in preparing, processing, forming, and applying multi-component alloys. We hope that it will stimulate further research and developments in this rapidly advancing field.





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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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