Special Issue

Design of High-Entropy Alloys

Message from the Guest Editors

High entropy alloys (HEAs) and complex, concentrated alloys (CCAs) have resulted from new approaches to alloy design, which emerged 16 years ago. HEAs/CCAs suggest the usage of multiple (at least 3–5) principle elements taken in close to equiatomic proportions with the possible presence of minor components. Due to such a complex chemical composition, the alloys can have unique structures and properties. Moreover, in addition to alloys, high entropy ceramics and coatings have recently emerged and already demonstrated remarkable properties.

Special Issue on the Design of High Entropy Alloys welcomes submissions on topics within the abovementioned scope. Works on fundamental aspects like phase formation and transformations, strengthening and deformation mechanisms, as well as diffusion are welcome. Investigations of functional properties of HEAs and non-metallic high-entropy materials are also eagerly anticipated. We hope paper published in the Special Issue will advance our understanding of composition-structure-properties relationships in HEAs and contribute to the design of new materials with unprecedented properties for future applications.

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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