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Deformation of High Entropy Alloys under Extreme Conditions

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Deadline for manuscript submissions:
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Message from the Guest Editors

As a novel class of materials, high-entropy alloys (HEAs) usually exhibit excellent mechanical properties, being significantly promising for structural applications. HEAs process much more metastable states compared with conventional dilute alloys, and thus, broader tailorable mechanical properties are available. In particular, under extreme conditions, outstanding resistances and large tolerances to external sufferings can be realized in HEAs. Therefore, understanding the fundamentals of the outstanding performance of HEAs under extreme conditions is critical for the further alloy development, production, and application.

It is our pleasure to invite you to submit a manuscript to this Special Issue, which will focus on the deformation of HEAs under extreme conditions, including low/high temperatures, high-speed loading, irradiation, corrosion, wear, high pressure, hypergravity. But it is not limited to the above topics. The scope will cover fundamental research and all other aspects of alloy development, synthesis, heat treatment, component manufacturing, computer simulation and engineering application are also considered.

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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.

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