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Deformation Mechanisms in High Entropy Alloys

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

High-Entropy alloys (HEAs) have allowed us to "map" previously unexplored regions in multidimensional composition phase-space. This extraordinary access to the phase-space provides exciting opportunities to not only engineer novel microstructures but also manipulate deformation mechanisms that directly impact the strength-ductility trade-off. Examples of such mechanisms include twining-induced plasticity (TWIP), transformationplasticity (TRIP), interfacial strengthening induced mechanisms. stacking faults, precipitate/dislocation interactions, dislocation/dislocation interactions, etc. Even the structure of dislocation cores in a multielement environment is being revisited, because the notion of Peierls stress for single elements needs to be adapted to multicomponent systems.

The purpose of the Special Issue "Deformation mechanisms in High-Entropy Alloys" is to provide an international forum for such ground-breaking studies. We welcome scientific contributions involving experimental, theoretical, and computational studies on deformation mechanisms in HEAs.

Dr. Deep Choudhuri

Guest Editor









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Editor-in-Chief

Prof. Dr. Alessandra Toncelli Department of Physics, University of Pisa, 56126 Pisa, Pl, Italy

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