

Special Issue

High-Entropy Alloys: Advancing Chemistry, Characterization and Computational Insights, 2nd Edition

Message from the Guest Editors

High-entropy alloys (HEAs) are transforming materials science through their unique multi-element compositions and exceptional properties. This Special Issue aims to highlight cutting-edge research in HEAs, encompassing alloy chemistry, experimental measurements, theoretical modeling and advanced characterization techniques. We welcome contributions that explore the fundamental mechanisms underlying the atomic-scale structures, phase transformations, and mechanical behaviors of HEAs, as well as studies demonstrating their diverse applications. More specifically, the Special Issue encompasses, but is not limited to, the following areas:

- Alloy chemistry and design.
- Atomic-scale structure and short-range ordering.
- Phase transformation kinetics in HEAs.
- Mechanical properties and deformation mechanisms.
- High-temperature behavior and thermal stability.
- Grain size effects and Hall–Petch relationships.
- Advanced characterization techniques for HEAs.
- Computational and theoretical modeling.
- Functional properties and emerging applications.
- Sustainability and alloy design for green applications.

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Deadline for manuscript submissions

30 June 2026



Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



mdpi.com/si/261870

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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