Special Issue

Advances in the Functional Performance of Low-to-High-Entropy Alloys: Corrosion and Tribological Perspectives

Message from the Guest Editors

This Special Issue explores the evolving landscape of functional properties in metallic systems. Spanning from conventional alloys to complex medium-/high-entropy systems, this Special Issue emphasizes integrated insights into the composition-process-microstructure-property paradigm to guide the design of metallic materials for next-generation applications.

Both corrosion and tribological performance are system-dependent. These properties are fundamentally tied to composition, processing, and microstructure. Thus, a deeper mechanistic understanding is essential to fully unlock the functional potential of these emerging materials.

This Special Issue invites original research, reviews, and short communications on metallic systems—ranging from conventional to entropy alloys—focused on tailoring corrosion and tribological properties through composition, manufacturing routes (including post-processing), and microstructural control. We look forward to your submissions.

Guest Editors

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About the Journal

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.

Editor-in-Chief

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