

Special Issue

Advanced Refractory Alloys

Message from the Guest Editors

Advanced refractory alloys, in particular refractory intermetallic composites (RMICs), such as Nb-silicide in situ composites and Mo-silicide based alloys, refractory high entropy alloys (RHEAs), refractory complex concentrated alloys (RCCAs) and refractory complex concentrated superalloys (RSA), attract much attention as perspective structural materials for use at temperatures much beyond Ni-based superalloys. This special issue of Metals will publish original experimental and theoretical work, as well as review papers, related to the development, processing, and microstructure and property characterization of these advanced refractory alloys.

- advanced refractory alloys
- refractory intermetallic composites
- high entropy alloys
- complex concentrated alloys
- processing
- microstructure
- mechanical properties
- functional properties
- oxidation behavior
- high-temperature properties

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Deadline for manuscript submissions

closed (31 December 2021)



Metals

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.3



mdpi.com/si/60975

Metals

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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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manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.7 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the second half of 2025).