Special Issue

Amorphous-Nanocrystalline Alloys: Synthesis, Properties and Applications

Message from the Guest Editor

This special Issue Will focus on research papers on the synthesis of bulk, thin films, powders based on light and ferromagnetic alloys with amorphous-nanocrystalline, quasicrystalline, amorphous and crystalline structure. Papers on structural mechanisms of plastic deformation, crystallization, the transition of an amorphous state to a crystalline state, the structure of amorphous-crystalline films will be considered. Papers involving structural, and functional analysis and applications are also included in so far as the mechanical, magnetic, electrical, thermal and corrosion properties and modeling. We invite you to contribute full papers, reviews or communications to this Special Issue. In all cases, the papers must demonstrate novelty and importance to the scope.

- Synthesis and methods for obtaining amorphous-nanocrystalline alloys
- Alloys based on light and ferromagnetic metals
- Crystalline, nanocrystaline, quasicrystalline, and amorphus materials
- Mechanical properties
- Electrical and magnetic properties
- Corrosion resistance
- Structural characterization
- Modeling of structure
- Thin amorphous-nanocrystalline films
- Surface treatment
- Tribological properties

Guest Editor

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Deadline for manuscript submissions

closed (31 March 2022)

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About the Journal

Message from the Editorial Board

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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manuscripts are peer-reviewed and a first decision is provided to authors approximately 18 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2025).

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