

Special Issue

News Trends in Powder Metallurgy: Microstructures, Properties, Durability

Message from the Guest Editors

Elaboration of sintered metallic alloys is currently one of the main ways of developing structural parts, compared to traditional methods of casting or plastic deformation processes. In this Special Issue, we propose a review of the scientific advances in this field, covering all the areas concerned, especially (though non-exhaustively):

- Powder properties, nanostructuration, mechanical alloying, and aging;
- Additive manufacturing by powder bed melting processes;
- Mechanical properties: fatigue, creep, plasticity mechanisms;
- Physical properties: magnetism, electrical conduction;
- Damage, fracture, effect of the environment: oxidation, electrochemical corrosion.

This Special Issue seeks to provide a selection of original research on the impact of the microstructure on the mechanical and functional properties of metallic alloys obtained by sintering and additive manufacturing routes. Submissions dealing with new microstructures and specific properties of metal powders are also welcome. As of this Special Issue, we invite you to submit your work, which will be peer-reviewed, to be accepted for publication in *Metals*.

Guest Editors

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Deadline for manuscript submissions

closed (1 May 2021)



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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.

Editors-in-Chief

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.5 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 2024).