Special Issue

Microstructure/Property Relationship in Metallic Powder Metallurgy

Message from the Guest Editors

Powder metallurgy (PM) is a continually and rapidly advancing technology including most metal and alloys. PM is a highly developed method of manufacturing reliable ferrous and non-ferrous parts with a homogeneous structure. The PM process enables manufacturers to make products that are more consistent and predictable in their behavior across a wide range of applications. Additionally, the PM process has a high degree of flexibility, allowing the tailoring of the physical characteristics of parts to suit specific property and performance requirements. This Special Issue seeks to provide a selection of original research focused on the microstructure/property relationship in metallic parts obtained by various PM routes. Papers dealing with new microstructures and specific properties of metal powders are also welcome, especially:

- Microstructure phenomena: porosity evaluation, microstructure variety, etc.;
- Press-and-sinter;
- Unconventional sintering processes;
- Unconventional PM processes;
- Post processing of PM;
- New PM materials and applications;
- Mechanical properties: fatigue, wear, plasticity mechanisms;
- Unconventional applications of PM products.

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Deadline for manuscript submissions

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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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JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Metals and Alloys)

Rapid Publication:

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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