Special Issue

Cellular Metals: Fabrication, Properties and Applications

Message from the Guest Editors

Cellular solids and porous metals have become the most promising lightweight multifunctional materials, being used in a wide range of commercial, biomedical, industrial and military applications. This is due to the superior combination of properties derived from their porous cellular structures together with the excellent properties of the metals. In contrast with other cellular materials, the cellular metals are non-flammable, recyclable, extremely tough and are excellent energy absorbers. This Special Issue is focused on:

- recent advances in novel manufacturing methods of cellular metals,
- design of new or improved performances of the cellular structures,
- geometrical characterization and determination of physical properties,
- experimental testing, numerical simulations and optimization methods,
- applications.

We welcome contributions, including review manuscripts from experimentalists, theorists, and computational scientists in this research field.

Guest Editors

Prof. Dr. Isabel Duarte

Prof. Dr. Matej Vesenjak

Prof. Dr. Thomas Fiedler

Prof. Dr. Lovre Krstulović-Opara

Deadline for manuscript submissions

closed (31 May 2020)

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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 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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