Special Issue

Design and Fabrication of Metallic Cellular Materials via Additive Manufacturing

Message from the Guest Editor

Additive manufacturing (AM) has revolutionized the fabrication of complex metallic structures, enabling the precise creation of cellular and architectured materials with controlled meso- and microscale features. We invite researchers to submit original research articles and reviews. Topics of interest include, but are not limited to, the following:

- **Design and optimization:** Novel methodologies for developing metallic cellular and architectured materials with superior functional and mechanical performance.
- **Process innovation:** Advanced AM strategies for improved structural integrity, material properties, and scalability of cellular materials.
- **AI and computational tools:** Application of machine learning, generative design, and simulation to streamline the development of metallic cellular materials.
- **Process–structure–property insights:** Experimental and theoretical studies investigating how AM parameters influence the microstructure and properties of cellular materials.
- **Bio-inspired designs:** Cellular structures inspired by natural systems, optimized for multifunctionality and sustainability.

Guest Editor

Dr. Guoying Dong

Department of Mechanical Engineering, University of Colorado, Denver, CO 80204, USA

Deadline for manuscript submissions

closed (31 May 2025)

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Metals
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
metals@mdpi.com

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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

Prof. Dr. Hugo F. Lopez
Department of Materials Science and Engineering, College of Engineering & Applied Science, University of Wisconsin-Milwaukee, 3200 N. Cramer Street, Milwaukee, WI 53211, USA

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Beijing Advanced Innovation Center of Materials Genome Engineering, State Key Laboratory for Advanced Metals and Materials, University of Science and Technology Beijing, 30 Xueyuan Road, Beijing 100083, China

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