metals

an Open Access Journal by MDPI

IMPACT FACTOR 2.5

CITESCORE 5.3

Aluminum Foams: Fabrication, Properties and Application

Guest Editor:

Prof. Dr. Jose Miguel Molina Jordá
Instituto Universitario de Materiales de Alicante, Departamento de Química Inorgánica, Universidad de Alicante, Ap. 99, E-03080 Alicante, Spain

Deadline for manuscript submissions:
closed (31 August 2023)

Message from the Guest Editor

Dear Colleagues,

Aluminum foams are versatile materials with an appealing combination of physical, mechanical, thermal, and acoustic properties. Their high specific stiffness and uniquely lightweight structure, resulting in low specific weight, make them particularly attractive for various industrial applications such as heat sinks, exchangers, chemical beds, scrubbers, filters, and mist eliminators. They are also employed in applications that require vibration and sound absorption. Their non-flammability, temperature stability and recyclability are significant benefits over other materials.

This Special Issue aims to collect the latest advances in the field of aluminum foams, covering their fabrication, characterization of properties and applications. We invite contributions on open and closed cell aluminum foams. In addition, cellular materials produced by the infiltration of preforms with liquid aluminum, with pore volume fractions ranging from 50% to 80%, are also considered aluminum foams and are therefore welcome. Particular advances in the fabrication and characterization of aluminum foams are welcome, especially if they lead to their use in new applications.

metals

IMPACT FACTOR 2.5

CITESCORE 5.3

an Open Access Journal by MDPI

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

Prof. Dr. Yong Zhang
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

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
High Visibility: indexed within Scopus, SCIE (Web of Science), Inspec, Ei Compendex, CAPlus / SciFinder, and other databases.
Journal Rank: JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Metals and Alloys)

Contact Us

Metals Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/metals
metals@mdpi.com
𝕏@Metals_MDPI