Special Issue

Dynamic Behavior of Advanced Materials and Structures (Second Edition)

Message from the Guest Editors

The dynamic behavior of materials and structures is a vibrant branch of mechanics and materials science that has an important application background in aerospace, traffic engineering, and many other industry fields. With the rapid development of manufacturing technology in recent years, a series of advanced materials and structures with excellent properties have emerged, and their nonlinear mechanical behavior and multiscale failure mechanism under impact loads have attracted extensive attention. The scope of this Special Issue includes theoretical, numerical, and experimental research on the dynamic mechanical behavior of additively manufactured metamaterials, high-entropy alloys, amorphous alloys, and some other advanced engineering materials and structures within a wide range of strain rates. The issue's scope also includes investigations on multiscale design for protective properties of materials and structures under intense loading.

Guest Editors

Prof. Dr. Weidong Song

Dr. Lijun Xiao

Dr. Xianfeng Yang

Deadline for manuscript submissions 20 December 2025



an Open Access Journal by MDPI

Impact Factor 3.1 CiteScore 5.8 Indexed in PubMed



mdpi.com/si/212102

Materials MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 materials@mdpi.com

mdpi.com/journal/ materials





an Open Access Journal by MDPI

Impact Factor 3.1 CiteScore 5.8 Indexed in PubMed



materials



About the Journal

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. Materials provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

Editor-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada 2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

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), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank:

JCR - Q1 (Metallurgy and Metallurgical Engineering) / CiteScore - Q2 (Condensed Matter Physics)