Special Issue

Progress and Challenges of Advanced Metallic Materials and Composites

Message from the Guest Editor

This Special Issue aims to present a series of featured articles and reviews exploring the latest advancements in the field of metallic materials and composites. Metallic materials and alloys have been traditionally used since the bronze age and have been constantly under development up to this age of semiconductors. They find applications in various industries, including, but not limited to, aerospace, automotive, biomedical, jewelry, tooling, and structural engineering. This Special Issue aims to compile key developments in the advancements of metallic materials and composites. especially their alloy strategy, processing, structureproperty correlations, strengthening and failure mechanisms, sustainability and circular economy aspects, recycling, and modeling and simulation of materials and their properties. By combining theoretical insights and experimental observations with practical applications, this Special Issue aims to foster a deeper understanding of the potential of metallic materials and composites, guiding future research and development initiatives.

Guest Editor

Prof. Dr. Prashanth Konda Gokuldoss

Department of Mechanical and Industrial Engineering, Tallinn University of Technology, 19806 Tallinn, Estonia

Deadline for manuscript submissions

30 December 2025



an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/226701

Materials
Editorial Office
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 3.2 CiteScore 6.4 Indexed in PubMed





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

 Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
 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 - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Condensed Matter Physics)