Special Issue

Welding and Joining Processes of Metallic Materials

Message from the Guest Editors

The last two decades have seen an intensive improvement in material welding, joining and additive manufacturing methods, enabling the weight reduction and high functionalization of multi-material structures. Today, it is possible to fabricate large-sized and thin-walled structures made of different types of metallic alloys with a more complicated geometry of reinforcement, including nanoparticles or precipitated phases. The advanced welding, joining and additive manufacturing processes of complex structures allows for the development of new technologies, with recent advances in manufacturing techniques further maximizing functionality while retaining the original character of the structure. The main purpose of this Special Issue is to collect research on the advanced processes in material welding, joining and additive manufacturing aspects. The main content of this Special Issue includes, but is not limited to, arc welding, high-energy beam welding, friction stir welding, wire arc additive manufacturing, friction stir additive manufacturing, laser additive manufacturing and their modelling techniques.

Guest Editors

Prof. Dr. Xiaohong Zhan
College of Materials Science and Technology, Nanjing University of Aeronautics and Astronautics, Nanjing 211106, China

Dr. Jianfeng Wang
College of Materials Science and Technology, Nanjing University of Aeronautics and Astronautics, Nanjing 211106, China

Deadline for manuscript submissions

closed (20 August 2024)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/180489

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

mdpi.com/journal/materials

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/journal/materials

MDPI

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