materials

an Open Access Journal by MDPI

IMPACT FACTOR 3.1

Indexed in: PubMed

CITESCORE 5.8

Energy Field-Assisted Metal Forming

Guest Editors:

Dr. Siliang Yan
School of Material Science and Engineering, Hefei University of Technology, Hefei 230009, China

Dr. Tao Huang
School of Materials Science and Engineering, Henan University of Science and Technology, Luoyang 471000, China

Dr. Miao Meng
School of Material Science and Engineering, Hefei University of Technology, Hefei 230009, China

Deadline for manuscript submissions:
20 January 2025

Message from the Guest Editors

Dear Colleagues,

Metal forming is an important area in the field of modern engineering. By processing metallic materials, the shape, microstructure, and comprehensive properties of the material can be altered, enabling it to be more suitable for different engineering applications. Therefore, studying the forming of metals provides important guidance for the design and manufacturing of new high-performance integral components.

The recent thriving energy field-assisted forming technique, to activate unregular multi-scale effects during the plastic deformation process, has been found to be a promising methodology in driving directional microstructure evolution.

This Special Issue focuses on the energy field-assisted forming processes of metallic materials, including, but not limited to, the energy effect of materials, electrically assisted forming, ultrasonic vibration-assisted forming, electromagnetic forming, energy-assisted treatments such as electromagnetic shocking and coupled electromagnetic treatment, and the microstructure and property changes of materials during these processes. Research contributions and review articles in these fields are all welcome.

materials

IMPACT FACTOR 3.1 | Indexed in: PubMed | CITESCORE 5.8

an Open Access Journal by MDPI

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

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.

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*)

Contact Us

Materials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/materials
materials@mdpi.com
𝕏@Materials_Mdpi