

Special Issue

Experimental Characterization and Numerical Modelling of Materials Mechanical Behaviour

Message from the Guest Editors

Metal forming comprises industrially relevant manufacturing processes in which the characterization of the mechanical response of the materials involved in different engineering applications is a crucial task. This characterization may contribute to a more efficient use of the available resources by means of the enhancement of both the operating conditions and the process design. Therefore, this analysis encompasses not only experimental aspects but also theoretical modelling and numerical simulation, whose final goal is to achieve a realistic description of many of the usually complex physical phenomena present in these engineering problems. This Special Issue aims to collect the latest advances in modelling and numerical and experimental validation of the mechanical behavior of materials used in common engineering environments. Contributions are welcome from both academic researchers and their industrial peers, dealing with novel manufacturing applications.

Guest Editors

Prof. Dr. Diego Celentano

Departamento de Ingeniería Mecánica y Metalúrgica, Pontificia Universidad Católica de Chile, Av. Vicuña Mackenna 4860, Santiago de Chile 7820436, Chile

Dr. Antonio J. Sánchez Egea

Pontificia Universidad Católica de Chile, Chile

Deadline for manuscript submissions

closed (29 February 2020)



Materials

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/22089

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

[mdpi.com/journal/
materials](https://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](https://mdpi.com/journal/materials)



About the Journal

Message from the Editorial Board

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.

Editors-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

Prof. Dr. Yuguang Ma

State Key Laboratory of Luminescent Materials and Devices, South China University of Technology, Guangzhou 510640, China

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)