



an Open Access Journal by MDPI

Experimental Characterization and Numerical Modelling of Materials Mechanical Behaviour

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 Catolica de Chile, Chile

Deadline for manuscript submissions: closed (29 February 2020)

Message from the Guest Editors

Dear Colleagues,

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.









an Open Access Journal by MDPI

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

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The iournal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites. advanced materials characterization, porous materials, manufacturing processes and svstems. 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 - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (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