Special Issue

Advances in Modelling and Simulation of Materials in Applied Sciences

Message from the Guest Editor

Advances in materials science and engineering, as well as in computer science, have opened new avenues for physicists and engineers to explore novel material processing and material characterization methods on macro-, micro-, and nanoscales; thus, modelling and simulation have become indispensable tools in this regard, complementing experimental measurements. This Special Issue is dedicated to exploring the recent advances in the modelling and simulation of materials within various applied sciences applications. Specific methods, fields of applications, and materials include, but are not limited to:

- Finite element method;
- Boundary element method;
- Finite difference method;
- Molecular dynamics;
- Multi-scale modelling;
- Coupled multiphysics problems;
- Ab initio modelling and simulations;
- Magnetohydrodynamics and hydrodynamics;
- Artificial intelligence and neural networks;
- Optimization methods;
- Acoustics, vibro-acoustics, sound, and vibration;
- Materials science and engineering;
- Material characterization and non-destructive testing;

Guest Editor

Dr. Evaggelos Kaselouris

Department of Music Technology and Acoustics, Hellenic Mediterranean University, 74133 Rethymnon, Greece

Deadline for manuscript submissions

closed (20 July 2025)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/202188

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)