



*materials*



an Open Access Journal by MDPI

## Mechanical Behaviors of Materials: Modelling and Measurement (2nd Edition)

Guest Editor:

**Prof. Dr. Ming-Tzer Lin**

Graduate Institute of Precision  
Engineering, National Chung  
Hsing University, Taichung  
402204, Taiwan

Deadline for manuscript  
submissions:

**20 August 2024**

### Message from the Guest Editor

With advancements in modern materials, the relationship between mechanical behavior and novel material properties has become a critical issue in the field of engineering design and development.

Thanks to recent developments centered around computational power and data storage, multiscale modelling analysis has become available for the mechanical behavior study of material elements from macroscopic, microscale, and nanoscale approaches to the characterization of materials.

Moreover, novel developments of nondestructive, optical, acoustic, and image processing methods, etc., have actualized mechanical characterization and application endeavors in view of their ability to accurately measure displacements, strains, and stresses in real time and to gather full-field information without altering object conditions, making them fundamentally useful in complex fields, such as bioengineering, MEMS, high-precision metrology, etc.

This Special Issue aims to focus on multiscale advances in “Mechanical Behaviors of Materials: Modelling and Measurement”. The goal is to provide a forum on the state-of-the-art and frontier applications for modelling and characterization.



[mdpi.com/si/195378](https://mdpi.com/si/195378)

# Special Issue



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 - Q2 (*Metallurgy & Metallurgical Engineering*) / CiteScore - Q2 (*Condensed Matter Physics*)

## Contact Us

Materials Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/materials](http://mdpi.com/journal/materials)  
[materials@mdpi.com](mailto:materials@mdpi.com)  
[X@Materials\\_Mdpi](https://twitter.com/Materials_Mdpi)