Special Issue

Featured Reviews on Quantum Materials

Message from the Guest Editor

In this Special Issue, we delve into the fascinating world of quantum materials, showcasing a series of comprehensive reviews from leading experts in the field.

- Superconductivity and Unconventional Phenomena: A review of the latest advancements in superconducting materials, exploring how quantum mechanics plays a vital role in their unique conductive properties.
- Topological Insulators and Quantum Computing: The implications for quantum computing and the development of next-generation electronic devices are thoroughly explored.
- Quantum Magnetism and Spintronics: An in-depth review delving into the future of data storage and advanced computing technologies.
- Two-Dimensional Materials and Beyond Graphene: A review discussing the unique electronic properties and potential applications of quantum materials in nanotechnology and material science.
- Emergent Phenomena Under Extreme Conditions: This section highlights new discoveries and the boundary-pushing experiments leading to them.
- Theoretical Advances and Predictive Modeling: This includes discussions on the role of machine learning and AI in predicting new materials and phenomena.

Guest Editor

Prof. Dr. Xinyu Liu

Condensed Matter Physics, University of Notre Dame, Notre Dame, IN, USA

Deadline for manuscript submissions

20 August 2025

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/197880

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

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)

MDPI