Special Issue

Recent Advances and Future Perspectives in Natural and Synthetic Porous Materials for Various Applications

Message from the Guest Editors

The last decade has seen significant breakthroughs in the design and processing of porous materials due to their high surface area and tunable pore size. The ability to adjust the order and functionality of these structures makes them ideal for applications in industries such as chemical, energy, environmental protection, medicine, and civil engineering. This Special Issue aims to highlight recent advances in preparation, characterization, property evaluation, and applications of both natural and synthetic porous materials. We welcome original research and reviews that address fundamental and applied topics, including high-performance material design, controlled fabrication, pore structure-property relationships, innovative approaches, and new applications. Relevant research areas include, but are not limited to:

- Microporous materials (zeolites, clays, metal-organic frameworks, porous polymers)
- Mesoporous materials (glass ceramics, aerogels, metal oxides, porous polymers)
- Macroporous materials (ceramics, glass ceramics, aerogels, porous polymers, cement)

Guest Editors

Dr. Oana Cadar

INCDO-INOE 2000, Research Institute for Analytical Instrumentation, 400293 Cluj-Napoca, Romania

Dr. Beata Kaczmarek-Szczepańska

Department of Biomaterials and Cosmetic Chemistry, Faculty of Chemistry, Nicolaus Copernicus University in Torun, Torun, Poland

Deadline for manuscript submissions

20 December 2025

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/210424

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)