

Special Issue

Neutron Scattering Studies in Materials Science

Message from the Guest Editor

Neutron scattering is one of the most useful probes to analyze the properties of materials. Scattering both magnetic and nuclear is used for determining unknown structures. Neutron spectroscopy gives insight into the fundamental excitations of the underlying lattice. The high penetration of neutrons allows the construction of extreme sample environment allowing to probe materials at ultra-low temperatures, high magnetic fields, extreme pressures, high temperatures and sometimes a combination of them. The increase in flux brilliance on neutron sources combined with event mode collection further facilitates experiments in-situ and in-operando. Neutron scattering in materials sciences is and has been fundamental to understand structures of materials, their textures, the associated strains in bulk. In-operando techniques reveal the evolution of these over time and allow the informed design of improved materials. The special issue of Neutron Scattering studies in Materials Science aims to present state of the art applications for neutron scattering in materials science and an outlook into the future impact of neutron scattering in materials science using time-resolved techniques.

Guest Editor

Dr. Matthias D. Frontzek
Oak Ridge National Laboratory, Oak Ridge, TN, USA

Deadline for manuscript submissions

closed (20 March 2023)



Materials

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/127341

Materials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

[mdpi.com/journal/
materials](https://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](https://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)