Special Issue

Nuclear Materials and Their Derivatives: Synthesis, Structure, and Properties

Message from the Guest Editors

Nuclear materials and their derivatives are important for nuclear energy and related applications. Structure, phase transition, stability, mechanical and thermodynamic properties, lattice dynamic properties, neutron and charged particle radiation effects of the entire fuel cycle, actinides and their compounds under different external conditions need careful investigation. Many related synthesis methods and simulation techniques are in development. The deep physical insights and theoretical understanding have greatly promoted further developments and applications of nuclear materials. This Special Issue aims to provide a unique international forum for researchers working in nuclear materials to report their latest endeavors in advancing this field, including new pristine nuclear materials, methods used to improve nuclear materials and their performance, theoretical understanding and physical insights into nuclear materials and their derivatives, synthesis and structural characterization of nuclear materials, computational discovery of new nuclear materials, physical and chemical properties of nuclear materials, and so on.

Guest Editors

Dr. Bao-Tian Wang

Prof. Dr. Tao Gao

Dr. Jiangjiang Ma

Deadline for manuscript submissions

closed (20 March 2025)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/153470

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)