

Special Issue

Rare Earth and Actinide Materials

Message from the Guest Editors

Ancient Greek philosophers used the term “earth” to refer to all solid matter—materials—of the Universe. After two millennia, the term has survived in references to alkaline earth and rare earth (RE) groups of elements in the periodic table. The latter commonly includes lanthanides, yttrium, and (arguably) scandium. While most abundant RE elements (Sc, Y, La, and Ce) are indeed rarer than most abundant alkaline earth metals (Ca and Mg), rare earth are critical for the creation materials used by modern society. Indeed, they span the applications from permanent magnets and superconductors to catalysts, ceramics, and environmental barrier coatings. Among actinides, only thorium was widely used in material design outside of the nuclear field. The chemistry of rare earth elements and the structure of their compounds is often used as a guide to actinides; lanthanides are formed as fission products and play a role in the design and reprocessing of nuclear materials. This Special Issue is devoted to rare earth and actinides. Expert submissions related to experimental research and computations on rare earth and actinide materials will be considered for publication.

Guest Editors

Dr. Sergey V. Ushakov

Dr. Tamilarasan Subramani

Dr. Lei Zhang

Deadline for manuscript submissions

closed (10 May 2024)



Materials

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/157704

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)