

Special Issue

Design and Characterization of Energy Catalytic Materials

Message from the Guest Editors

The rapid growth of global energy demand has greatly promoted the utilization of various energy systems and the development and transformation of energy catalytic materials. Photocatalysis, electrochemical catalysis, thermal catalysis, and photo–electrochemical/thermal coupled catalysis systems offer potential routes to address the increasing environmental and energy-related issues. The Special Issue, Design and Characterization of Energy Catalytic Materials, will include a comprehensive overview and in-depth research paper addressing recent progress in energy catalysis. Studies of advanced characterization techniques and design methods in this field are highly encouraged.

Potential topics include, but are not limited to:

- Photocatalysis;
- Electrochemical catalysis;
- Photo-electrochemical/Photo-thermal catalysis;
- Carbon dioxide reduction;
- Hydrogen evolution;
- Nitrogen reduction;
- Fuel cells;
- Hydrogen peroxide production;
- Pollutants removal;
- Biomass conversion;
- Thermodynamics;
- In situ techniques;
- Fabrication methodology.

Guest Editors

Prof. Dr. Gang Cheng

Dr. Chao Han

Prof. Dr. Florian J. Stadler

Deadline for manuscript submissions

closed (20 November 2024)



Materials

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/154070

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)