Special Issue

Sustainable Catalytic Materials for Selective Oxidation and Energy Applications

Message from the Guest Editors

This Special Issue focuses on the development of sustainable catalytic materials for selective oxidation reactions in the context of an environmentaly-friendlier chemistry with lower energy consumption including synthesis of useful chemicals by selective oxidation from bio-derived sustainable feedstocks, liquid phase alcohols oxidation, carbon dioxide preferential oxidation, oxidative dehydrogenation and ammoxidation, etc., as well as their applications in relevant topics related to sustainable energy as for exemple: fuel cells, production of syngas, conversion of biomass to fuels, hydrogen energy, catalytic transformation of CO2 to fuels, and so on. This Special Issue welcomes the recent advances and trends in the development of novel sustainable catalytic materials for selective oxidation and energy applications, and is not limited to the above-mentioned challenging reactions. Kevwords

- heterogeneous catalytic oxidation
- new sustainable catalytic materials
- fuel cells
- green and sustainable energy

Guest Editors

Dr. Mihaela Florea

National Institute of Materials Physics

Dr. Florentina Neatu

National Institute of Materials Physics, Atomistilor 405A, 077125 Magurele, Romania

Deadline for manuscript submissions

closed (31 December 2021)



an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/26847

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

mdpi.com/journal/materials





an Open Access Journal by MDPI

Impact Factor 3.2 CiteScore 6.4 Indexed in PubMed





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

 Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
 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)