Special Issue

Nanomaterials as Photocatalysts: Synthesis, Characterization, and Applications

Message from the Guest Editors

This Special Issue delves into the intriguing field of nanomaterials as photocatalysts, focusing on their synthesis, characterization, and diverse applications. Nanomaterials, with their unique optical, electronic, and structural properties, are emerging as promising candidates for photocatalysis, which uses light energy to drive chemical reactions. This Special Issue highlights innovative synthesis methods to enhance photocatalytic efficiency and stability, alongside advanced characterization techniques that provide insights into their structural, electronic, and surface properties. It examines applications ranging from environmental pollutant remediation to hydrogen production and carbon dioxide conversion. By showcasing cutting-edge research in nanomaterials for photocatalysis, this Special Issue aims to deepen the understanding of fundamental principles and practical challenges, paving the way for novel solutions to global energy and environmental issues. It is my pleasure to invite you to submit a manuscript for this Special Issue. Full papers, communications, and reviews are all welcome.

Guest Editors

Prof. Dr. Maraísa Gonçalves

Science and Technology Institute, Federal University of São Paulo, São José dos Campos 12231-280, SP, Brazil

Prof. Dr. Raquel Aparecida Domingues

Science and Technology Institute, Federal University of São Paulo, São José dos Campos 12231-280, SP, Brazil

Deadline for manuscript submissions

20 May 2026

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/213435

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 Editorial Board

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.

Editors-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

Prof. Dr. Yuguang Ma
State Key Laboratory of Luminescent Materials and Devices, South China University of Technology, Guangzhou 510640, China

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)

MDPI