

Special Issue

Exploration of Two-Dimensional Mixed Metal Oxide Nanocomposites for the Fabrication of High Energy Density Supercapacitors

Message from the Guest Editors

This open access Special Issue aims to compile original research, mini-reviews, research prospects, and comprehensive state-of-the-art studies on the latest advancements in supercapacitor technologies. The focus will be on novel synthetic approaches, innovative electrode materials, and unique device fabrication techniques for supercapacitor applications. The primary objective of this Special Issue is to present the most recent cutting-edge innovations in supercapacitor technologies and researchers are encouraged to submit their work related to the synthesis strategies and fabrication techniques of supercapacitors. **Topics covered:**

- Metal oxide/sulfide-based nanocomposites;
- Two-dimensional layered double hydroxide composites;
- Spinel perovskite nanocomposites;
- Polymer matrix nanocomposites;
- Carbon nanotube composites;
- Mixed metal oxide nanocomposites.

Guest Editors

Dr. Karthik Kannan

1. Department of Mechanical Engineering, Advanced Institute of Manufacturing with High-Tech Innovations, National Chung Cheng University, Chiayi 621301, Taiwan

2. Australian Center for Sustainable Development Research and Innovation (ACSDRI), Unit 36/21 South Tce, Adelaide SA 5000, Australia

Dr. Sriram Ganesan

School of Chemical Engineering, Yeungnam University, Gyeongsan 38541, Republic of Korea

Deadline for manuscript submissions

closed (10 January 2025)



Materials

an Open Access Journal
by MDPI

Impact Factor 3.7
CiteScore 7.0
Indexed in PubMed



mdpi.com/si/198525

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 3.7
CiteScore 7.0
Indexed in PubMed



[mdpi.com/journal/
materials](https://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)