







an Open Access Journal by MDPI

# Design, Structure, and Performance of Novel Composite Materials for Sustainable Energy Applications

Guest Editors:

### Prof. Dr. Huaiun Fan

College of Chemical Engineering, Sichuan University Science and Engineering, Zigong 643000, China

#### Dr. Mirza Galib

Department of Chemistry, Howard University, Washington, DC, USA

## Dr. Jianping Shang

College of Chemistry and Chemical Engineering, Sichuan University of Science and Engineering, Zigong 643000, China

Deadline for manuscript submissions:

20 October 2024

## **Message from the Guest Editors**

This multidisciplinary Special Issue aims to explore the intersection of material science and sustainable energy solutions. Researchers and experts are invited to submit papers that delve into, but are not limited to, the innovative use of composite materials to address the challenges of advancing sustainable energy technologies, the design principles behind these novel composite materials, and analyzing their underlying structures at various scales from polymer, metal, ceramic, and biobased composites. Submissions could focus on the synthesis techniques, manufacturing processes. characterization methodologies, or properties such as efficiency, durability, overall viability, and more.

Ultimately, this Special Issue aims to foster a deeper understanding of the intricate relationship between composite material design, its structural attributes, and its pivotal role in driving sustainable energy advancements. By sharing insights and discoveries, the academic community endeavors to accelerate the development of materials that can reshape the landscape of renewable energy for a more sustainable future.













an Open Access Journal by MDPI

## **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

## **Message from the Editor-in-Chief**

Materials (ISSN 1996-1944) was launched in 2008. The iournal covers twenty-five comprehensive biomaterials, energy materials, advanced composites. advanced materials characterization, porous materials, manufacturing processes and systems. 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.

## **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 & Metallurgical Engineering*) / CiteScore - Q2 (*Condensed Matter Physics*)

#### **Contact Us**