

## Special Issue

# Development Characterization and Application of Biochar-Based Composites

### Message from the Guest Editors

Biochar-based fillers can now have new and attractive applications due to their low cost, large availability and smart properties. It is proven the biochar-based fillers can provide comparable characteristics to the matrix. Some examples are the successful use of biochar fillers for creating sensors based on biochar's electrical and piezoelectrical properties. Biochar-based composites have also shown very good mechanical properties that greatly enhanced matrix behaviour accordingly with the particular characteristic of the chosen filler, both in terms of resistance and friction. Biochar is a green and environmental friendly material and, since biochar is derived from biomasses pyrolysis, it is important to point out not only the properties of the final product but also to focus on standard production methods that tend to limit variation of properties due to different precursor feedstocks. In this Special Issue, the best researchers in the field will propose detailed discussions based on their experience, in order to bolster the interest around this new class of filler materials.

---

### Guest Editors

Dr. Massimo Rovere

Department of Applied Science and Technology, Politecnico di Torino,  
10129 Turin, Italy

Dr. Carlo Rosso

Department of Mechanical and Aerospace Engineering, Politecnico di  
Torino, 10129 Turin, Italy

---

### Deadline for manuscript submissions

closed (31 July 2023)



## Materials

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.2  
CiteScore 6.4  
Indexed in PubMed



[mdpi.com/si/92196](https://mdpi.com/si/92196)

*Materials*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[materials@mdpi.com](mailto: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)