

## Special Issue

# Biopolymers for Potential Applications

### Message from the Guest Editor

In addition to specific viscoelastic and mechanical properties that these biopolymers have, many biopolymers also have a more fascinating set of electromagnetic, photonic, and optical properties; furthermore, due to the underlying presence of quantum phenomena (such as quantum tunneling), in addition to the abovementioned properties, some of these biopolymers can be useful in the creation of flexible devices where higher and potentially metal-like electrical conductivity is desired. This Special Issue of *Materials* (ISSN 1996-1944) on "Biopolymers for Potential Applications" aims to focus on the recent progress in the development and design of various biopolymers, including (but not limited to) biopolymers, conductive biopolymers, composite biopolymers, biomimetic materials, biopolymers for flexible devices, biopolymers for neuroprosthetics, biopolymers with optical properties, semiconducting biopolymers, biophotonics, and advanced biopolymers for spintronics applications. Original manuscripts that focus on the elastic properties and the nanodesign of these biopolymers for the abovementioned applications are particularly welcome.

### Guest Editor

Dr. Federico Cerrone

School of Biomolecular and Biomedical Science, University College  
Dublin, Dublin, Ireland

### Deadline for manuscript submissions

closed (10 November 2022)



## Materials

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.2  
CiteScore 6.4  
Indexed in PubMed



[mdpi.com/si/67547](https://mdpi.com/si/67547)

*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)