Special Issue

Hydrogel Composites and Applications

Message from the Guest Editor

Hydrogels, polymers that swell in water, have tunable mechanical properties. They are widely used in smart wearable, sensing, energy storage, soft robotics, bioelectronics, tissue adhesion, and impact protection. Hydrogel composites can enhance the mechanical properties of hydrogels and functionalize them to expand their applications. We are publishing a Special Issue of Materials devoted to the synthesis. characterization, and application of hydrogels and their composites. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following: hydrogels; hydrogel composites; toughening mechanisms of hydrogel; energy dissipation of hydrogels; hydrogels for biological adhesion; new characterization and synthesis methods of hydrogels; sensors and monitoring technologies of hydrogels; energy storage hydrogels; hydrogel soft robotics, hydrogel bioelectronics, hydrogel tissue adhesion, and impact protection hydrogels. I/We look forward to receiving your contributions.

Guest Editor

Dr. Weizheng Li

College of Chemistry, Chemical Engineering and Materials Science, Soochow University, Suzhou 215123, China

Deadline for manuscript submissions

closed (20 June 2025)



an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/204954

Materials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

mdpi.com/journal/materials





an Open Access Journal by MDPI

Impact Factor 3.2 CiteScore 6.4 Indexed in PubMed





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

 Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
 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)