

IMPACT FACTOR 5.0





an Open Access Journal by MDPI

Advances in Cellulose-Based Hydrogels (2nd Edition)

Guest Editors:

Dr. Christian Demitri

Department of Engineering for Innovation, University of Salento, Via per Monteroni, 73100 Lecce, Italy

Dr. Laura Riva

Department of Chemistry, Materials and Chemical Engineering "G. Natta", Politecnico di Milano, 20131 Milano, Italy

Dr. Lorenzo Bonetti

Department of Civil Engineering and Architecture (DICAr), Università degli Studi di Pavia, 27100 Pavia, Italy

Deadline for manuscript submissions:

closed (20 November 2023)

Message from the Guest Editors

Dear Colleagues,

Cellulose is the most abundant natural biopolymer on Earth. With an estimated annual production of $\sim\!1.5\times1012$ tons globally, and the possibility of its extraction even from waste sources, it is considered an almost inexhaustible source of raw material capable to make up for the growing demand for environmentally friendly and biocompatible products.

Within this framework, cellulose-based hydrogels usually combine hydrophilicity, biodegradability, non-toxicity, and biocompatibility together with low costs and massive availability, which make them extremely attractive in both academic and industrial fields. Possible application fields include biomedical engineering, progress in smart systems and stimuli-responsive systems, the agricultural sector, and water purification.

This Special Issue aims to collect papers presenting the recent progress in cellulose-based hydrogels, including gels prepared from natural cellulose and its derivatives, cellulose graft co-polymers, and composite gels based on cellulose. We encourage submissions covering key aspects of cellulose-based hydrogels.

For more information, please visit mdpi.com/si/126856.













an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Esmaiel Jabbari

Biomimetic Materials and Tissue Engineering Laboratory, Department of Chemical Engineering, University of South Carolina, Columbia, SC 29208, USA

Message from the Editor-in-Chief

Gels (ISSN 2310-2861) is recently established international, open access journal on physical and chemical gel-based materials. The journal aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. General topics include but not limited to synthesis, characterization and applications of new organogels, hydrogels and ionic gels made either from low molecular weight compounds or polymers, composite and hybrid materials where a metal is by some means incorporated into the gel network, and computational studies of these materials in order to provide a better understanding of gelation mechanism. We cordially invite you to consider publishing with us and contribute with your own grain of sand to the advance in this fascinating field.

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, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q1 (Polymer Science) / CiteScore - Q2 (Polymers and Plastics)

Contact Us