Special Issue

Hydrogel and Membrane Dressings for Antibacterial Applications

Message from the Guest Editors

Skin plays important roles in homeostasis and protects the body from microbial invasion. Bacterial infections on skin wounds cause significant pains and health issues. A wound dressing is commonly used to prevent bacterial infections and promote wound healing. An ideal wound dressing material should be biocompatible, can absorb fluid released from the wound, release various growth factors required for wound healing, and can act as a barrier to prevent further invasions by foreign microorganisms. Antimicrobial hydrogels and membranes are the most popular dressings, and have been widely used in clinical applications. This Special Issue on “Hydrogel and membrane Dressing for Antibacterial Applications” is dedicated to the recent developments of hydrogels or membrane dressings for wound healing. A broad range of subjects, including the structure of antibacterial dressings, the antibacterial behavior and antibacterial mechanisms of dressings, anti-inflammatory activity of dressings and effect of wound healing, will be discussed. Papers and reviews ranging from theoretical and fundamental aspects to fabrication, characterization, and applications are all welcome.

Guest Editors

Dr. Chao Zhou

Dr. Yang Liu

Prof. Dr. Xiubo Zhao

Deadline for manuscript submissions

closed (30 April 2024)

Gels

an Open Access Journal by MDPI

Impact Factor 5.3
CiteScore 7.6
Indexed in PubMed

mdpi.com/si/172602

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

mdpi.com/journal/gels

Gels

an Open Access Journal by MDPI

Impact Factor 5.3
CiteScore 7.6
Indexed in PubMed

mdpi.com/journal/gels

About the Journal

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.

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

Author Benefits

High visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Polymer Science) / CiteScore - Q1 (Organic Chemistry)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 12.5 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).

MDPI