

Special Issue

Gel-Based Materials for Biomedical Engineering

Message from the Guest Editors

Gels, or hydrogels, are colloidal systems composed of two or more phases commonly used in biomedical applications and usually consist of three-dimensional polymer networks and solvents. Due to their inherent biocompatibility, high water content, porosity, flexibility, and low immunogenicity, hydrogels have been widely used in biomedical fields. Examples of its application include contact lenses, biosensors, drug delivery systems, wound healing and tissue engineering. In addition, by modifying the polymer network with stimuli-responsive groups or them compounding with functional components, we can obtain “smart” hydrogels. These are distinguished by their responsiveness to different types of stimuli including thermal, light, magnetic field, chemical reagents, ultrasound and pH. The potential applications of these hydrogels in biomedical engineering need to be further explored. This Special Issue, entitled “Gel-Based Materials for Biomedical Engineering,” aims to further explore the composition, structure, performance and biocompatibility of gels, providing the latest research progress into gel-based materials in biomedical applications.

Guest Editors

Dr. Daihua Fu

National Engineering Research Center for Biomaterials, Sichuan University, Chengdu 610064, China

Dr. Jieyu Zhang

National Engineering Research Center for Biomaterials, Sichuan University, Chengdu 610065, China

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

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About the Journal

Message from the Editorial Board

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.

Editors-in-Chief

Prof. Dr. Esmail Jabbari

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

Prof. Dr. Chuanliang Feng

State Key Lab of Metal Matrix Composites, School of Materials Science and Engineering, Shanghai Jiao Tong University, Shanghai 200240, China

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