Special Issue

Multifunctional Conductive Polymer Gels: Synthesis, Properties, and Applications

Message from the Guest Editors

This Special Issue on “Multifunctional Conductive Polymer Gels: Synthesis, Properties, and Applications” is dedicated to recent developments from theoretical and fundamental aspects to the synthesis, characterization, and applications of conductive gels.

The advancement of soft materials has significantly driven progress in biomedical, electronics, and sustainable energy fields. Among these advancements, conductive polymer gels are pivotal for facilitating tissue regeneration, monitoring physiological information, enhancing human-machine interaction, and advancing self-powered sensing. However, several material-related challenges persist, and further understanding of the underlying mechanisms that enhance these properties is also needed. Additionally, we encourage innovative applications of these conductive gels, such as tissue regeneration, electrophysiological monitoring, mechanical sensing, sustainable energy harvesting, and thermal management, to be featured in this special issue.

We hope that these topics will inspire new research and discoveries in the field of conductive polymer gels.

Guest Editors

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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
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