Special Issue

Flexible Gel Sensor: From Design to Application

Message from the Guest Editor

Flexible gel sensors represent an exciting advancement in materials science and sensing technology. Based on hydrogels and elastomers, these sensors can conform to curved surfaces, repeatedly stretch and deform, and detect stimuli such as pressure, strain, and humidity. Their flexibility and versatility make them well-suited for applications including wearable electronics, soft robotics, and health monitoring. However, designing and optimizing these sensors requires expertise across multiple disciplines including chemistry, mechanics, electronics, and manufacturing. This Special Issue aims to bring together the latest interdisciplinary research on the design, fabrication, characterization, and implementation of flexible gel sensors. Contributions will cover fundamental studies on gel chemistry and mechanics as well as applied research on integrating these unique materials into functional devices. By providing a comprehensive look at the current state and future potential of flexible gel sensor technology, this Special Issue will foster collaboration across fields and accelerate development of innovative new applications.

Guest Editor

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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

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