

Special Issue

Lignin Hydrogels: From Fundamental Research to Application

Message from the Guest Editors

Lignin hydrogels represent an exciting field of study, merging the unique properties of lignin, a complex natural polymer found in plant cell walls, with the versatile characteristics of hydrogels. This Special Issue aims to explore the latest advancements in the synthesis, characterization, and applications of lignin-based hydrogels. The focus is on understanding the fundamental properties of lignin, its interactions within hydrogel matrices, and how these properties can be harnessed for various applications, including biomedicine, environmental remediation, and sustainable material development. Research articles, reviews, and case studies addressing the design strategies, mechanical properties, biodegradability, and biocompatibility of lignin hydrogels are encouraged. Additionally, this Special Issue seeks contributions that explore innovative applications, such as drug delivery systems, tissue engineering scaffolds, and responsive materials. This Special Issue aims to bridge the gap between fundamental research and practical applications, fostering the development of greener, more sustainable technologies utilizing lignin hydrogels.

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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. Esmail Jabbari

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