Special Issue

Molecular Perspectives on the Synthesis and Application of Hydrogel Materials

Message from the Guest Editor

Hydrogels are a kind of three-dimensional and crosslinked polymeric networks with properties such as hydrophilicity, softness, porosity, tunability, and nonpareil mechanical properties, and often they are stimulus-responsive. In recent years, many different types of new hydrogels have been developed, and various techniques have been employed for hydrogel production, together with implications in the process design. With the progress of hydrogel development, they have been and are widely used in different fields, such as drug delivery systems, sealing, artificial snow, pharmaceuticals, and several other biomedical applications. Several hydrogels with special properties have been prepared, but the molecular basis of their formation and the deriving properties are still under study.

This Special Issue focuses on the molecular basis of the hydrogels formation and application, on the possible new methods to synthesize hydrogels, and on the development of additional new hydrogels with special properties or application performance. We will welcome original research articles, comprehensive reviews, and novel communications.

Guest Editor

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Message from the Editor-in-Chief

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