

Special Issue

Biomedical Hydrogels: Synthesis, Design and Applications

Message from the Guest Editors

Natural, synthetic, and composite hydrogels have received great attentions for wide biomedical applications. The advances have been achieved in both physically or chemically crosslinked hydrogels. In physically crosslinked hydrogels, the interactions between polymers chains in amphiphilic block and graft copolymers are established by ionic or hydrophobic interactions. In chemically crosslinked hydrogels, the covalent bonds are formed between polymer chains. The crosslinks hydrogels can be generated by radical polymerization, chemical reaction of complementary groups and enzymes. To explore novel biomedical functions, composite hydrogels were widely designed and developed. In this special issue, we will discuss and review recent progress in synthesis, design and applications of varying types of biomedical hydrogels for drug delivery, cell encapsulation, tissue engineering and varying aspects of biomedical applications including self-healing properties.

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