

High Strength Polymeric Hydrogels with Improved Properties for Various Biomedical Applications [†]

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Abstract: The potential of hydrogels is actively explored for effective patient care. Current research is focused on applications such as Tissue engineering, bio-sensing, drug delivery, medical surgery. Comparing to other biomaterials, hydrogels have distinct properties that make them suitable for biomedical applications. However, there is a need to tailor the physical properties concerning a specific application. This review deals with high-strength polymeric hydrogels and various methods to modify their physical properties. The development of hydrogels with improved physical properties by maintaining biocompatibility and biodegradability will lead to medical advancement.

Keywords: hydrogels; biomaterials; high strength polymers; biomedical engineering.

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Conflicts of Interest

The authors declare no conflict of interest.