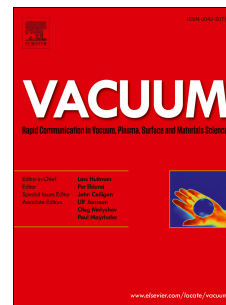


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Recent Progress in Gelatin Hydrogel Nanocomposites for Water Purification and Beyond

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Abstract

Innovative characteristics of hydrogels such as swellability, modifiability and hydrophilicity make them materials of choice for water treatment and other applications. Hydrogels have shown excellent adsorptive performance for different types of water pollutants comprising toxic dyes, nutrients and heavy metals. Among different types of hydrogel based materials, hydrogel-nanomaterials combination represent a highly viable method to further improve the properties of hydrogel for numerous applications. The combination of hydrogel and nanomaterials leads to the development of hybrid hydrogel with multifunctional network. This novel combination gives synergistic effect to the newly formed novel hydrogel materials. In this article, we briefly review the recent progress in gelatin based hydrogel nanocomposites with particular emphasis on wastewater treatment along with biomedical applications.

Keywords: Gelatin; hydrogel; nanocomposite; water treatment; biomedical applications.

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