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Preparation and Characterization of Chitosan / Polyacrylic Acid / Ag-nanoparticles Composite Membranes

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Abstract : Chitosan polyacrylic acid composite membranes were prepared by a bulk polymerization method in the presence of N, N'-methylene bisacrylamide (crosslinker) and ammonium persulphate as initiator. Membranes prepared from this copolymer in presence and absence of Ag nanoparticles were characterized by measuring mechanical and physical properties, water up-take and antibacterial properties. The results obtained indicated that the prepared membranes have antibacterial properties which increases with adding Ag nanoparticles.

Keywords : Ag nanoparticles , antimicrobial, Membrane, composites, mechanical properties, physical properties
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