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Transport properties of silver ions in chitosan/fibroin membranes

Chitosan membranes incorporated with silver ions have potential applications in such areas as olefin/paraffin separation and controlled release of silver ions in wound dressing. Fibroin films loaded with silver ions are also applicable to wound healing. These materials also act as effective adsorbents of silver ions in wastewater treatment. In this study, the transport properties of silver ions in chitosan and/or fibroin membranes are evaluated and compared by determining the diffusivity coefficients, permeation coefficients and sorption uptake.