

Chitosan based films. synthesis and crystalline properties of nanocomposites with amine propyl siloxane

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The sol-gel treatment of equal amounts of chitosan and partially hydrolyzed aminopropylsiloxane (APS) leads to the formation of transparent, flexible films indicating high compatibility at the molecular level of the components. X-Ray diffraction and thermal analysis of the products indicate the formation of a new phase with a structure which in light of its FTIR spectrum appears to be similar to that of the form I of the pristine chitosan.