

عنوان مقاله:

Preparation and characterization of a novel biopolymer chitosan-acrylamide-PAMAM dendrimer

محل انتشار:

یازدهمین سمینار بین المللی علوم و تکنولوژی پلیمر (سال: 1393)

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خلاصه مقاله:

Chitosan, a natural biodegradable polymer, is non soluble in water. It is necessary to modify chitosan in order to use in diverse applications. In this study, acrylamide was successfully grafted to chitosan via Michael reaction. In the next step, PAMAM dendrimer (G=-0.5) was attached to chitosan grafted with acrylamide. The prepared components were confirmed by FTIR, DSC and SEM analysis equipments. The results from FTIR, DSC and SEM indicated that the reactions among chitosan, acrylamide and dendrimer were occurred chemically. This component has a huge potential to be used in numerous fields, namely, biotechnology, dye removal applications, etc. to produce nanofibers which could be used in dye removal and biotechnology. Moreover, this component could be electrospun in order to produce nano fibrous structure

کلمات کلیدی:

Chitosan, Acrylamide, PAMAM dendrimer

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