

## عنوان مقاله:

Preparation of homogenous chitosan/tragacanth gum composite films

## محل انتشار:

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

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## خلاصه مقاله:

In the past decade, a good many of studies have been performed on alloying of biocompatible polymers for medical uses. Among numerous studies on polymers, chitosan has attracted a lot of attention while tragacanth gum has not. Chitosan is a polysaccharide with animal origin and tragacanth gum has herbal source. Obtaining composite films of these two polymers seems to be achievable due to the hydrophilic properties of the both natural polymers. However, dissolving less acidic solution of tragacanth gum in higher acidic chitosan solution without intermediary agent is impossible and the mixture is completely biphasic. In this study, we offer an approach to make a homogeneous mixture of these two polymers, i.e. chitosan and tragacanth gum, which in normal conditions phase separate. In this method, adding an optimum amount of alkaline media would increase deacetylation of chitosan which in turn leads to the more uniform microstructure of the composite film. The proposed method reduces the mixing time to less than 5 minutes. Then, swelling behavior of composite film is measured in distilled water and potential of application of the composite films in drug delivery systems would be assessed

## کلمات کلیدی:

Chitosan-Tragacanth Gum-Swelling behavior-Drug delivery

## لینک ثابت مقاله در پایگاه سیویلیکا:

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