

## عنوان مقاله:

Graft Copolymerization of a Reactive  $\beta$ -Cyclodextrin and Acrylic Acid onto the Cellulosic Fibres

## محل انتشار:

دهمین سمینار بین المللی علوم و تکنولوژی پلیمر (سال: 1391)

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## خلاصه مقاله:

Cyclodextrins (CDs) are macrocyclic compounds composed of six to eight D-glucose units linked together by  $\alpha$ -(1,4)-glycosidic bonds [1]. Due to the hydrophilic exterior and hydrophobic interior of these compounds, CDs can incorporate a variety of hydrophobic compounds in their cavities, via host-guest complexation. A large number of cyclodextrin derivatives have recently been introduced with compounds capable of reacting with their hydroxyl groups [2-3]. Among these derivatives, some reactive cyclodextrins have also been applied in textile industries [4] because natural or synthetic polymers containing nucleophilic groups can react with these derivatives by forming a covalent bond [5]. In our previous studies, a reactive derivative was provided in which the  $\beta$ -cyclodextrin was modified with a bifunctional compound containing carboxyl and vinyl groups via the esterification reaction. The structural information of synthesised cyclodextrin itaconate was characterised, and the grafting copolymerisation of this reactive cyclodextrin on cotton fabric was studied [6, 7]. In this research, the new cyclodextrin reactive was applied with acrylic acid on the surface of cellulosic fibres to improve the performance of fabrics.

## کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا:

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