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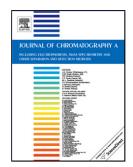
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Providing Hyper-Branched Dendrimer conjugated with β-cyclodextrin based on Magnetic

Nanoparticles for the Separation of Methylprednisolone Acetate

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Highlights

Efficient method for the extraction of the anti-inflammatory drug by nano-sorbent

Representing excellent linearity, recovery, LOD and RSD by SPE technique with HPLC

Developed method for dendritic β -CD in order to obtain high sorption capacity

Abstract

This study introduced a developed approach for dendritic β -cyclodextrin (β -CD) in order to obtain high

sorption capacity. Synthetic strategy exploits the reactivity between acrylic acid and allyl glycidyl ether for

high-yielding assembly via grafting on to the magnetic nanoparticles that are modified using 3-

mercaptopropyltrimethoxysilane for various building branches and host–guest molecules of β-CD. The

methodology has been applied for the preparation of a series of β-CD conjugated magnetic nanoparticles

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