

## عنوان مقاله:

Biosynthesis and characterization of Ag nanoparticle decorated magnetic chitosan with potential biomedical applications

## محل انتشار:

سومین کنگره ملی شیمی و نانوشیمی از پژوهش تا فناوری (سال: 1399)

تعداد صفحات اصل مقاله: 8

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## خلاصه مقاله:

Biosynthesis of nanoparticles from plant extracts is receiving enormous interest due to their abundant availability and a broad spectrum of bioactive reducing metabolites. In this study, the reducing potential of Glycyrrhiza glabra roots extract was investigated for synthesizing silver and iron oxide nanoparticles without the addition of any external reducing and capping agent. The synthesized silver nanoparticles decorated magnetic chitosan were characterized by Fourier transforms infrared spectroscopy (FT-IR) analysis, field emission-scanning electron microscopy (FE-SEM), X-ray diffraction (XRD). The green synthesized nanoparticles presented effective antibacterial activity against Escherichia coli, klebsiella pneumoniae and streptococcus pyogenes. In conclusion, the results supported the advantages of employing a bio-green approach for developing silver nanoparticles decorated magnetic chitosan with antibacterial.

## کلمات کلیدی:

biosynthesis, Glycyrrhiza glabra extract, antibacterial, Ag nanoparticles, Iron oxide nanoparticles, chitosan

## لینک ثابت مقاله در پایگاه سیویلیکا:

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