

## عنوان مقاله:

Preparation and characterization of Fe<sub>3</sub>O<sub>4</sub>/SiO<sub>2</sub>/PVP for controlled release of drug

## محل انتشار:

اولین کنفرانس بین المللی فناوری های نوین در علوم (سال: 1396)

تعداد صفحات اصل مقاله: 5

## نویسندگان:

Taraneh Ehteshamzadeh - *Polymer engineering group, Faculty of technology and engineering, Golestan University, Gorgan, Iran*

Mehdi Ghaffari - *Polymer engineering group, Faculty of technology and engineering, Golestan University, Gorgan, Iran*

Saeed Kakaei - *NSTRI, Nuclear Fuel Cycle Research Institute, P.O. Box 11365/8486, Tehran, Iran*

Ali Reza Khanchi - *NSTRI, Nuclear Fuel Cycle Research Institute, P.O. Box 11365/8486, Tehran, Iran*

## خلاصه مقاله:

Magnetic drug delivery systems can be used in cancer treatment. In this study, magnetic nanocomposite hydrogels have been developed and demonstrated to be responsive to alternating magnetic fields. Fe<sub>3</sub>O<sub>4</sub> nanoparticles were synthesized by co-precipitation method. The synthesized nanoparticles are modified by (3-aminopropyl)triethoxysilane (APTES) and coated with polyvinylpyrrolidone (PVP). Modified nanoparticles characterized by FTIR, SEM, XRD and magnetic properties are determined by vibrating sample magnetometer (VSM). The results indicate that PVP coated iron oxide nanoparticles are promising for magnetically targeted drug delivery

## کلمات کلیدی:

Fe<sub>3</sub>O<sub>4</sub>; drug delivery; hydrogel; polyvinylpyrrolidone

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/673189>

