

عنوان مقاله:

Synthesis, Characterization and Application of Fe₃O₄/κ-carrageenan Magnetic Nanocomposite for Efficient Copper(II) Ion Removal

محل انتشار:

اولین کنگره بین المللی شیمی و نانو شیمی از پژوهش تا فناوری (سال: 1397)

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خلاصه مقاله:

Magnetic κ-carrageenan nanocomposites have been synthesized on the basis of magnetite nanoparticles. These nanocomposites can be removed conveniently from water with the help of an external magnet because of their exceptional properties. Thenanocomposites were applied to remove copper ion from water because κ-carrageenan that is inactive on the surface of the magnetic nanoparticles is coordinated with them. The interaction between κ - carrageenan and copper ions is reversible, which means thatthose ions can be removed from κ-carrageenan in weak acidic deionized water with the assistance of mechanical shaking. On the basis of the reasons referred to above, synthesized magnetic κ-carrageenan nanocomposites were used as a useful recyclable tool for copper ion removal. .This work provides a potential platform for developing a unique route for heavy metal ion removal from wastewater

کلمات کلیدی:

Fe₃O₄, Cu(II), Magnetic K-carrageenan Nanocomposites, Copper Removal, Sorption

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