

## عنوان مقاله:

Removal of chromate ions from aqueous solution by natural hydroxyapatite

## محل انتشار:

اولین طرح تعاملی صنعت با دانشگاه: همایش سالانه پژوهش های کاربردی در علوم مهندسی و پایه (سال: 1393)

تعداد صفحات اصل مقاله: 11

## نویسندگان:

Faezeh tadjik - Student of Master of science at department of Materials Science and Engineering, School of Engineering, Semnan University, Semnan, Iran

Omid Mirzaee - Department of Materials Science and Engineering,, School of Engineering, Semnan University,, Semnan, Iran

.Homeira Ebrahimzadeh - Department of chemistry, Shahid beheshti university, Tehran, Iran

## خلاصه مقاله:

The removal of Cr(VI) from aqueous solution by natural HAP was investigated .natural HAP is an inexpensive material that uptake large amounts of various heavy metals like Cr (VI).a simple method for providing natural hydroxyapatite is introduced. Natural HAP (N-HAP), extracted from bovine cortical bone ash, is a good choice for substitution of commercial HAP. Some different experiments were done to investigate the sorption capacity of Cr(VI) onto N-HAP in various initial concentrations, pH and reaction times. In this study, the sorption of chromate ions from a Cr solution onto HAP at three initial pH values of 2.00, 3.00 and 7.00 was studied. The experimental results showed that better performance was obtained through lower pH values. The experimental data were analyzed using Langmuir, Freundlich , and kinetic studies. The analysis showed a maximum adsorption at a pH of 2.00. A pseudo-second order kinetic model has been proposed to correlate the experimental data.. and differences between sorption sites in the N-HAP before and after Cr adsorption identified from Fourier transform infrared spectra

## کلمات کلیدی:

Natural Hydroxyapatite ; Heavy metal ions

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/412126>

