

## عنوان مقاله:

(Assessment of Heavy Metal Removal (Ni, Cr, Cd

## محل انتشار:

سومین همایش ملی نفت، گاز و پتروشیمی (سال: 1392)

تعداد صفحات اصل مقاله: 8

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## خلاصه مقاله:

The danger of heavy metal on human and environment is the serious and certain in the society. The presence of heavy metal in aqua sources is the importance problem of industrial countries. Bio absorbents is one of the technology which is effective in reducing this is kind of pollution. The aim of this study is the evaluation of the removed heavy metal (Ni, Cr, Cd) using *Avicenna marina*. These plants have been sampled from the different locations in Hara jungles at Asaloyeh and then after being placed in the pilot for a month with densities: 2/5, 5/15, 11/15, 15/1 ppm and  $Plt=4/5$  (similar to environment of plant) were studied separately and Combined with 5 Department of Chemical Engineering, Firoozabad branch, Islamic Azad University, Firoozabad, Fars, Iran, E-mail: mf\_fche@iauf.ac.ir, Tel.: +654126224523; fax: +654126224412. P.O. Box: 44415-114.elements. And in continuation, the results we achieved the remain density of involved metals in attendance solution from results by atomic spectrophotometry system In respect of empirical results increasing density in refinement of any element separately with increasing density in chrome and cadmium ions, leading to increase adsorption by plant. And about Nickel, with increasing density, the reduction of adsorption has been observed and in complexes state of elements in condition, with increasing of chrome and nickel ions adsorption but it was associated the total adsorption than separated state, In continuation, the research of the effect of time of contact indicated that the highest adsorption is being performed For 5 days by plant. For evaluating the effect of PH The Potential of adsorbing the plant was studied in PH, 2444645411 and in density 15 ppm From chrome ion For 4 days. Finally, according empirical results . The highest adsorption through this plant is chrome ion > nickel > cadmium in PH=5 and For 5 days. Finally, The plant which having the highest adsorption. Than chrome was concerned as a sample with taking apart. The different section (root, stem, leaf) in to a 5 mm part and then was die and transformed into ashes by furnace and digested by dense Nitric acid and chloride acid (41:31 % V) after being solvent, the densities of chrome stored in any tosses were studied, as result, the highest stored chrome .ion is 744, 722 and 71 in root, stem and leaf, respectively

## کلمات کلیدی:

heavy metal; removal; *Avicenna*; adsorption by plant; spectrophotometry

