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گواهی ثبت مقاله در سیویلیکا
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عنوان مقاله:

Removal of heavy metal ions from aqueous solutions using Xanthium Pensylvanicum

محل انتشار:

چهارمین کنفرانس بین المللی مهندسی و علوم انسانی (سال: 1395)

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خلاصه مقاله:

The hazardous ill effects of heavy metals on the environment and public health is a matter of serious concern. Biosorption is emerging as a sustainable effective technology. Heavy metals in water resources are one of the most important environmental problems of countries. The intensification of industrialactivity and environmental stress greatly contributes to the significant rise of heavy metal pollution in water resources making threats on terrestrial and aquatic life. The toxicity of metal pollution is slow and interminable, as these metal ions are non bio-degradable. The adsorption capacity of XanthiumPensylvanicum towards metal ions such as Pb2+, Cu2+, Zn2+, Cd2+, Ni2+, Co2+ and Fe3+, was studied. Theadsorption capacity was performed by batch experiments as a function of process parameters (such assorption time and pH). Experimental results showed that the removal percentages increasing of metalions at pH=4, initial concentration of metal ions 10 mg/L, and after 90 min of shaking was: Zn2+ < Cd2+< Cu2+ .+< Pb2+ < Ni2+ < Fe3+ < Co2

کلمات کلیدی:

Xanthium pensylvanicum, Heavy metals, Removal of metals, Absorption

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