عنوان مقاله:

Application of nut shells for chromium removal from wastewater

محل انتشار:

اولین کنفرانس بین المللی تصفیه فاضلاب و بازیافت آب، فناوری ها و یافته های نو (سال: 1388)

تعداد صفحات اصل مقاله: 11

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خلاصه مقاله:

Adsorption capacity of Cr (VI) onto activated carbon, almond and apricot shells was investigated in a batch system by considering the effects of various parameters like contact time, initial concentration, pH, temperature, agitation speed, absorbent dose and particle size. Cr (VI) removal is pH dependent and found to be maximum at pH 2.0. The amounts of Cr (VI) adsorbed increased with increase in dose of both adsorbents and their contact time. A contact time of 30 min was found to be optimum. Experimental results show low cost biosorbent were effective for the removal of pollutants from aqueous solution. The Langmuir, Freundlich and Temkin isotherm were used to describe the adsorption equilibrium studies of agrowaste. Freundlich isotherm shows better fit than Langmuir and Temkin isotherm in the temperature range studied

كلمات كليدى:

Chromium, Low-Cost Biological Wastes, Adsorption, Biosorbent, Agricultural Solid Wastes

لینک ثابت مقاله در پایگاه سیویلیکا:

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