عنوان مقاله:

Removal of heavy toxic metal ions from waste products by using chitosan

محل انتشار:

پنجمین کنگره بین المللی مهندسی شیمی (سال: 1386)

تعداد صفحات اصل مقاله: 4

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خلاصه مقاله:

The majority of cations of heavy toxic metal pollutants are waste pollutants of industrial and metallurgical processes. Demand for an advantage technique to efficiently remove this toxic contaminant without giving any hazardous residue after treatment is the challenge for researchers. Most methods employ chemical agent that normally need further treatment. A biopolymer material, which is more inert and do not produce harmful side effects to the environment has been developed and tested in the present study. Chitosan has been selected due to the excellent adsorbent characteristics to investigate chitosan efficiency in adsorbing three types of heavy metal ions in wastewater, namely lead, cadmium and mercury. The finding of the study show that lead and cadmium are successfully adsorbed which achieve reduction of 100 % and 99 %, accordingly and mercury with 97 % adsorption rate.

کلمات کلیدی:

Heavy toxic metals, Chitosan, Adsorption, Biopolymer, Waste

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