

عنوان مقاله:

Application of response surface methodology for Bio-sorption of Cadmium Chlorella sp

محل انتشار:

سومین کنفرانس بین المللی مهندسی محیط زیست (سال: 1395)

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نویسنده:

hamide Hamide

خلاصه مقاله:

Earth changed With appearance of industrial revolution . Industrial activities have contributed to the increase of toxic heavy metals in plants and animals that survive or live in water. Heavy metal pollution of surface and ground water is considered to be one of the most prominent and common environmental threats, since the toxic ions dissolved can finally reach the top of the food chain and thus become a risk factor for human health. Heavy metals, such as cadmium Cd (II) and often presents in industrial wastewaters, are dangerous to the aquatic ecosystem and pose possible human health risk. RSM (Response Surface Methodology) is a useful technique for development and optimization of bio-sorption process .There are three chief steps involved in this process: experimental design, modeling, and optimization. Five in depended variables, pH(A), temperature(B), absorption time(C),concentration of metal initial (D) and concentration of biomass(C) with remarkable influence of the process were considered. The fit of the model is expressed by coefficient of determination R², which was calculated to be 0.913. Thus it can be stated that phytoplankton species are of great potential in removing cadmium element and It can be used in studies Bioremediation

کلمات کلیدی:

Bio-sorption, Cadmium, Chlorella sp ,RSM

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