

عنوان مقاله:

Biosorption of Radium onto Brown Algae: Equilibrium and Kinetic Studies

محل انتشار:

هفتمین کنگره ملی مهندسی شیمی (سال: 1390)

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خلاصه مقاله:

The removal of radium ions from aqueous solutions by *C. indica* alga has been studied in a batch system. The biosorption efficiency was determined as a function of pH, contact time and initial metal ions concentration. The results revealed that the uptake of radium ions by *C. indica* was increased by increasing the metal ion concentration and the contact time, where as it was decreased by decreasing pH of the solution. The maximum biosorption efficiency of *C. indica* was 83% for radium, respectively. Batch kinetic and isotherm of biosorption metal ions were investigated. The biosorption equilibrium was described by Langmuir and Freundlich isotherm models. It was shown that the equilibrium data could be better fitted by Freundlich equation. It was also found that the biosorption follows pseudo-second-order kinetic model.

کلمات کلیدی:

Radium; Biosorption; *C. indica*; Kinetics; Adsorption isotherm

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