

The use of hydroxyapatite-chitosan composite for the removal of lead ions from aqueous solution

최순범, 김 석, 원성욱, 모주앤, 윤영상*
전북대학교
(ysyun@chonbuk.ac.kr*)

Current technologies for removal and recovery of both toxic and industrial interests metals usually produce wastes with high concentrations of those substances. They are an important source of environmental pollution, specially when they contain heavy metals. This study deals with the mechanism of the lead removal by synthetic hydroxyapatite-chitosan(HAC) composite in aqueous solution. Adsorption of lead was rapidly occurred onto HAC and most of the sorbed metal was bound in <60min of contact. The HAC bound lead at up to 0.5mmol/g at pH 3.5. Monitoring of pH in kinetic experiments was conducted for the mechanism study.