

عنوان مقاله:

Removal of Ammonium Ion By Light Expanded Clay Aggregate: Adsorption and Isotherm Study

محل انتشار:

چهاردهمین کنگره ملی مهندسی شیمی ایران (سال: 1391)

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خلاصه مقاله:

The possibility of ammonium ion removal from aqueous solution using light expanded clay aggregate (LECA) was investigated in this work. FESEM is used to determine the sorbent characterization. The effects of some effective parameters on ammonium ion adsorption process such as initial pH, initial ammonium ion concentration, and the contact time were studied. The results showed that the equilibrium data were fitted well with two Langmuir and Freundlich isotherm models. The maximum monolayer adsorption capacity estimated by Langmuir isotherm was 0.255 mg/g and the required contact time to achieve the equilibrium condition was 150 min and pH=7 was reported as optimum value

کلمات کلیدی:

Ammonium removal; Clay; LECA; Equilibrium isotherm; Adsorption

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