

عنوان مقاله:

Adsorption of 1-chloro-4-nitro benzene from aqueous solutions onto silkworm cocoon waste

محل انتشار:

اولین همایش ملی یافته های نوین در پژوهش های کشاورزی و منابع طبیعی (سال: 1394)

تعداد صفحات اصل مقاله: 7

نویسنده:

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خلاصه مقاله:

Equilibrium isotherms and the adsorption kinetics of 1-chloro-4-nitrobenzene (1C4NB) onto silkworm cocoon waste (SWCW) were studied experimentally. The adsorption experiments were down in a batch system under various conditions such as different initial concentrations of 1C4NB, pH, dosage of SWCW, temperature and contact time. Results showed adsorption reached equilibrium within 20 min and the optimum pH was 3. Experimental results have shown that, the adsorption of 1C4NB decreased with increasing the initial concentration of 1C4NB and increased by increasing of SCW waste dosage. Also, obtained data confirmed that the temperature has no significant effect on adsorption of 1C4NB onto SWCW. The experimental data have been analyzed using the Langmuir, Freundlich and Temkin isotherm models. The results indicated the adsorption of 1C4NB onto SWCW could be well fitted with the Temkin isotherm model.

کلمات کلیدی:

Adsorption, 1-Chloro-4-nitrobenzene, Silkworm cocoon waste

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