SORPTION OF CATIONIC DYES FROM AQUEOUS SOLUTION ONTO NATURAL CLAY. EQUILIBRIUM AND KINETIC STUDY

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Abstract

Equilibrium and kinetic studies regarding the sorption of the copper phtalocyanine dye Alcian Blue 8 GX were carried-out within batch experiments. The sorption equilibrium revealed that the pure natural clay can uptake up to 18 mg of Alcian Blue 8 GX per 1 g mass of clay. The cationic dye sorption was best fitted by Freundlich model that is applicable to sorption on heterogeneous surfaces (surfaces with non-equivalent energetic sites). The pseudo-second order kinetic model may be efficiently used to predict the kinetic of the dye Alcian Blue 8GX sorption by the studied clay.

Keywords: sorption, Alcian Blue 8 GX, natural clay, kinetic model, isotherms

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