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ADSORPTION OF DIBUTYL-PHTHALATE ON HUMIC ACID

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Abstract

Behaviors of adsorption of di-n-butyl phthalate (DBP) on humic acid and the effects of temperature on these processes are studied by solid phase extraction-HPLC method. The results show that the adsorption amounts of DBP increase with increasing equilibrium-concentrations of DBP. Such results could be well described by Langmuir equation. The maximum adsorption amount (Q_{max}) and adsorption constant (k) at 35°C were both lower than those at 25°C. Thus, high temperature is unfavorable to the adsorption reaction.

Key words: adsorption and desorption, DBP, humic acid, isothermal adsorption kinetics, thermodynamics

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