**ABSTRACT**

Adsorption of ferric ions by chitin was studied by the batch equilibration method. The influence of particle size and dosage of the adsorbent, contact time, initial concentration of the adsorbate and temperature were experimentally verified. The effect of anions like chloride, nitrate and sulphate and also of cations like zinc, chromium and copper on the adsorption of iron(III) was determined. The time dependence of fraction of adsorption, *Yt*, at varying particle sizes and doses of chitin and the intraparticle diffusion rate constants, *kp*, of the adsorption process were calculated. Thermodynamic and equilibrium parameters of the reaction were determined to understand the sorption behavior of chitin. The results revealed that the adsorption of iron(III) by chitin is spontaneous, endothermic and favourable.