Chrome sludge as an adsorbent for colour removal

ABSTRACT

The potential of chrome sludge, a waste product from the electroplating industries, to remove colour from aqueous solutions was investigated. Results indicated that the sludge had better affinity for acid than basic dyes. Equilibrium data can be fitted into the Langmuir isotherm with maximum sorption of 30 ï 60 mg gī 1 for the range of acid dyes studied. The process followed a first order rate kinetics and the rate of dye removal was influenced by concentration and agitation speed.

Keyword: Adsorption; Agitation; Chrome sludge; Dyes