BIOSORPTION OF CHROMIUM (VI) IONS FROM AQUEOUS SOLUTION BY CHICKEN FEATHERS

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ABSTRACT

BIOSORPTION OF CHROMIUM (VI) IONS FROM AQUEOUS SOLUTION BY CHICKEN FEATHERS

Chicken Feathers is a type of biomass that can be utilised to remove heavy metals from aqueous solutions. In this case the heavy metal intended to be removed is Cr (VI). This study is based on the knowledge that it is possible to use biosorption by chicken feather to adsorb Cr (VI) onto its keratin structure. Chicken feathers were introduced into a Cr (VI) solution and was analysed to know the optimum pH, dosage and contact time of adsorption. Results of the study show that the best pH is pH 4, the best dosage is 0.1 grams and the best contact time is 120 minutes. Studies in the future should be carried out to investigate the effects of modification on the chicken feathers and reusable cycle for heavy metals adsorption.