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Removal of Chromium (VI) from Aqueous Solution using *Azolla Caroliniana* as Adsorbent

S. Evany Nithya, A. Sabeek Mohamed and R. Viji

University College of Engineering- BIT Campus, Anna University, Tiruchirappalli-620 024, India E-mail: evanynithya@yahoo.co.in

Abstract: In this study, the batch removal of Cr (VI) ion from aqueous solution using *Azolla caroliniana* is investigated. The biosorption capacity of *Azolla caroliniana* strongly depends on the pH and the maximum Cr (VI) sorption capacities of Azolla species was obtained at pH 2. Equilibrium uptake of Cr (VI) increased with increase of Cr (VI) concentration of biomass up to 10mg -5omg/l at pH 2. The maximum Cr (VI) uptake is acquired using 0.3mm size of particles of Azolla. The maximum monolayer adsorption capacity from the Langmuir isotherm model is obtained as 110 mg/g. The maximum efficiency of chromium removal using *Azolla caroliniana* was 73.6 percent.

Key words: Azolla caroliniana, Biosorption, Cr (VI), pH, Contact time, Concentration