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Research papers

BIOSORPTION OF Cu^{2+} IONS FROM AQUEOUS SOLUTION BY *Enteromorpha sp.*

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Abstract

Biosorption studies on living non – immobilized algal tissue was carried out in batch reactors (1L) at laboratory scale. Temperature, pH, mixing speed and initial biomass weight were constant. Efficiency of biosorption was calculated for different copper concentrations and different time periods. To examine the relationship between absorbed (q_e) and aqueous concentrations (C_e) at equilibrium, the sorption isotherm model based on Langmuir equation was used for fitting the data. The results show that *Enteromopha sp* is able to adsorb Cu ions from aqueous solution with a good uptake capacity after a short time (15 min): 0.88 mg g^{-1} dried biomass at pH of 7 and 0.533 mg g^{-1} at pH of 6.

Keywords: Enteromorpha sp., copper, biosorption, equilibrium, pH effect

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