ABSTRACT

STUDY THE ABILITY OF LEAF PULP GAMBIER (*Uncaria Gambier Roxb*) AS BIOSORBENT FOR REMOVING LEAD (II) AND COPPER (II) IONS.

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The biosorption characteristics of Pb(II) and Cu(II) ions from aqueous solution using the (*uncaria gambier* Robx) biomass. The optimum condition of Pb(II) and Cu(II) ion onto (*uncaria gambier* Robx) was occurred at pH 3, 150 rpm in 1 g biomass with each contact time was 60 minutes, metal ion concentration was 200 mg/L with adsorption capacity was 3.6625 mg/g. The optimum condition adsorption conditions of Cu(II) ions was occurred at pH 4, 100 rpm in 1 g biomass with contact time was 30 minutes, metal ion concentration was 150 mg/L and adsoption capacity was 1,4437 mg/g. The metal ions concentration was analyzed by Atomic Absorption Spectrophotometry (AAS) metod. FTIR spectra analysis might revealed that carboxyl, hydroxyl and carbonyl groups were dominant in the process of metal ions uptake.

Keywords : Biosorption, Pb(II), Cu(II), *Uncaria Gambier Roxb,* AAS and FTIR