

STUDI PENYERAPAN ION KROM(III) OLEH BIOMASSA AMPAS TEBU (*Saccharum Spontaneum*) DALAM AIR

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ABSTRACT: In the present work, the process of chrom(III)-ion adsorption by *S. spontaneum* biomass have been investigated. This investigation intend to determinate capacity of adsorption the biomass for chrom(III) ion in water. A weight of 1 g biomass was put ionto 10 ppm of the metal-ion solution whose pH varied from 4.0 to 6.0. Then, these solutions were stirred for 120 minutes. After filtering, the metal-ion concentration in the filtrate was determined by atomic absorption spectrometry. The amount of ion adsorbed by the biomass was taken as the difference between the initial and final concentration of the solution. Further, the same method was carried out to the varied concentration. The result showed, the optimum pH for metal-ion adsorption by the biomass is 5.5, having adsorption value 0.128 mg/g. Capacity of khrom(III)-ion adsorption was obtained by varied concentration, yielded value of 0.318 mg/g.

Key word: *S. spontaneum, biomass, adsorption, spectrometry*