ABSTRACT

UTILIZATION OF WASTE BANANA PEEL (*Musa paradisiaca* L.) ACTIVATED H_2SO_4 AS ADSORBENT FOR METAL LEAD (Pb) ADSORPTION BASED ON VARIATIONS OF THE INITIAL CONCENTRATION OF SOLUTION METAL LEAD (Pb)

Evi Wahyuni

Industrial waste discharged into the waters can cause water contamination by heavy metals, one of which is lead (Pb) which is harmful to living things. Kepok banana peel waste contains hydroxyl groups capable of binding metal ions, positively charged metal ions will be bound by electron-rich hydroxyl groups. The purpose of this study was to determine the ability of kepok banana peel as an adsorbent activated by sulfuric acid (H_2SO_4) based on variations in the initial concentration of lead metal solution (Pb), namely 30 ppm, 40 ppm, 50 ppm, 60 ppm and 70 ppm. Measurement of lead concentration after being adsorbed by the adsorbent using spectrophotometry. The largest average adsorption capacity produced was at a concentration of 70 ppm with an adsorption capacity value of 6.6852 mg/g.

Keywords: Kepok banana peel, Lead, Sulfuric Acid, Adsorption.