

ABSTRACT

UTILIZATION OF KEPOK BANANA PEEL (*Musa paradisiaca* L.) ACTIVATED BY HCl AS AN ADSORBENT OF LEAD METAL WITH VARIATIONS OF INITIAL CONCENTRATION OF LEAD METAL SOLUTION

Miftah Salsabilah Permatasari

Lead (Pb) is one of heavy metals used in industrial activities which causes water pollution and harmful for health. The purpose of this study is to determine the highest lead metal (Pb) adsorption capacity that could be achieved of Kepok banana peel activated by HCl. In this study, use adsorption method using Kepok banana peel as an adsorbent for adsorption of lead metal with variation of initial concentration of lead metal solution. Variation of initial concentration of lead metal solution were 30, 40, 50, 60, and 70 ppm. From the result of the study, the adsorption capacity increases along with the initial concentration of the lead metal solution. The result showed that the highest capacity adsorption of lead metal was in concentration of 70 ppm was 6,6637 mg/gram. The increases in capacity adsorption occurred because the adsorbent of Kepok banana peel has not been saturated, so that the lead metal adsorption process was still ongoing.

Keywords: Adsorption, Kepok Banana peels, Lead (Pb)