# ABSTRACT


**QUANTITATIVE ANALYSIS OF LEAD (Pb) ADSORPTION BASED ON CONTACT TIME VARIATION USING KEPOK BANANA PEEL (*Musa acuminate* L.) AS A BIOSORBENT (Contact Time 15, 20, 45, 60 and 75 Minutes)**

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Water is a source of necessities of life for humans, water must be clean and not polluted by waste so that people's health is guaranteed. The increasing number of industrial activities is the main trigger for heavy metal compounds released in water. The heavy metal compounds contained are very dangerous for health if consumed in excess of the permitted limits. Thus, this research was conducted by utilizing Kepok banana peel waste to adsorb the heavy metal Pb. The purpose of this study was to determine the highest % adsorption capacity in lead (Pb) adsorption using Kepok banana peel as a biosorbent based on variations in contact time.

In this study, the contact time variations used were 15, 20, 45, 60 and 75 minutes. The data taken are the initial and final concentrations of metals in the samples obtained from the analysis of the Atomic Absorption Spectrophotometer (AAS) which are then calculated using the adsorption percentage formula. The highest adsorption percentage obtained was at contact time of 75 minutes with % adsorption of 90.7362 % and the One-Way Anova statistical test data obtained where there was a significant effect of contact time variation treatment on % adsorption.



Key word : Kepok Banana Peel, Lead (Pb), Adsorption, Contact Time.