

**ADSORPTION OF LEAD BY USING XANTHATE DURIAN
LEAVES POWDER**

NURUL AFIFA BINTI MAT AZIZ

**BACHELOR OF SCIENCE (Hons.) CHEMISTRY
FACULTY OF APPLIED SCIENCES
UNIVERSITI TEKNOLOGI MARA**

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ABSTRACT

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Durian leaf powder was chemically modified by introducing sulfur groups with the carbon disulfide treatment in alkaline medium. The presence of sulfur groups on durian leaf Xanthate were identified by FTIR spectroscopic study. Batch adsorption study was applied to investigate the effect contact time, initial concentration of Pb(II), adsorbent dosage and pH on Pb adsorption. The studies were conducted at pH 4, XDL dosage is 0.05g, in contact time of 90 minutes and temperature of 30⁰C. kinetics data were analyzed using two adsorption kinetics model which is pseudo-first-order and pseudo-second-order with R² between 0.9987 to 0.9995 rather than pseudo-second-order model.

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