ADSORPTION OF LEAD BY USING XANTHATE DURIAN LEAVES POWDER

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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 coencemtration of Pb(II), adsorbent dosage and pH on Pb adsorption. The studies were conducted at pH 4, XDL dosahe is 0.05g, in contact time of 90 minutes and temperature of 30^0C. kinetics data were analyzed using two adsorption kinetics model which is pseudo-first-order and preudo-second-order with R^2 between 0.9987 to 0.9995 rather than pseudo-second-order model.

TABLE OF CONTENTS

LIST OF TABLES