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## ADSORPTION OF Pb (II) FROM AQUEOUS SOLUTION ONTO LEWATIT FO36 NANO RESIN: EQUILIBRIUM AND KINETIC STUDIES

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### Abstract

This investigation focused on the adsorption of Pb (II) onto Lewatit FO 36 resin from aqueous solutions. The effects of initial metal concentration, contact time, pH of solution were factors that affected the adsorption of Pb (II). Adsorption kinetic was better explained by the pseudo second order type 1 kinetic model that was confirmed by the values ( $R^2 > 0.986$ ). The Langmuir, Freundlich, Temkin and BET adsorption models were used for the equilibrium studies and Freundlich isotherm better described the adsorption equilibrium. According to the Langmuir isotherm the maximum adsorption capacity of Pb (II) onto Lewatit FO 36 was  $62.5 \text{ mmol g}^{-1}$  at pH 7 and  $0.04 \text{ g L}^{-1}$  resin dosage and 15min contact time.

*Key words:* adsorption, isotherm, kinetics, lead (II), lewatit FO 36

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