

Abstracts

The raw kaolin itself was a good adsorbent. Zinc (II) would adsorb on kaolin from Sincalang's deposit. Kaolin crushed and screened until the size solid approximately 200 ± 240 mesh. Kaolin suspension prepared by rinsed with 1 M NaOH for approximately 12 hours. The solid included to Zn (II) solutions and determined AA (Atomic Adsorption Spectrometer). Samples were withdrawn every 15 minutes. The variables studied with temperature in the range $30 - 50^{\circ}\text{C}$ and concentration $40 - 60$ ppm. The adsorption data analysed by the Freundlich, Langmuir and Brunauer - Emmet - Teller (BET) proposed models by regression linear method. Based on the result the Freundlich model was suitable model to describe the equilibrium. From this model it was obtained that the value of constant equilibrium $K = 2,6503$ with temperature 30°C , Enthalpy $\Delta H = -0,9865$ kcal/mole, Free energy Gibbs $\Delta G = -4,9007$ kcal/mole and Entropy $\Delta S = 12,918$ kcal/mole

Keywords : Zinc (II), adsorption, Models, Equilibrium, Kaoli.