**The effect of concentration, temperature, and the potency of hydrogen on the adsorption of calcium on manganese dioxide**

**Abstract**

This research was carried out to determine the effect of temperature, concentration, and pH on the adsorption of Ca2+ in Ca(NC 3)2 solution on MnO2. The essence is to improve the depolarizing ability of MnO2 used in a dry cell. Potentiometric titration method was used to determine the adsorption of calcium ion on MnO2. Both unilateral and interactive effects of concentration, temperature, and pH on the calcium ion were investigated using the 23 factorial design. It was observed that at 40°C, IM. and pH of 11.25, Ca2+ produce an electric surface charge of 0.961 coloumb/mole on MnO2.