

ABSTRACT

Activation of natural zeolite has done by using Chlorid Acid (HCl), Activation is done to improve the ability of zeolite adsorption to dissolve salt ions in sea water and specific zeolites adsorptivity (mg/g) in sea water. The activation has been done by varying concentration of HCl, from 1 M to 5 M in comparison to the mass of 1:1 zeolite as much as 100 grams. Used seawater salinity are amounted to 35,5 ppt. The treatment of activation with variations of the concentrations of HCl proven to improve zeolites specific adsorptivity. In this study, activation with a 4 M HCl produced zeolite with the highest specific adsorptivity. In addition to variations of the concentration of HCl, there is also a variation of activation time for 1 hour to 5 hours. Acquired time activation of 3 hours resulted in increased best zeolite specific adsorptivity. In this research also conducted a variation of mass zeolite 3.5 grams, 7 grams, 10.5 grams, 14 grams and 17.5 grams. Acquired a reduction of salinity of seawater comparable to the mass of zeolite used. From the results of the study can be seen that variations of the HCl concentration and length of activation time can increase zeolite adsorptivity.

Key words: Zeolite, Activation, Specific adsorptivity, Sea water, Salinity, HCl, Zeolite Mass.