

## ABSTRACT

*The activation of the clinoptilolite type of zeolite using chloride acid (HCl) followed by a heating treatment was done using a microwave. The addition of thermal treatment using microwave has proven to be able to significantly shorten the duration of activation, from 3 hours by oven treatment to only 10 minutes by microwave treatment. Besides accelerating the activation process, the heating treatment by the microwave produces activated zeolites with a salinity reduction capability much faster than zeolites heated by the oven. The best specific powder zeolite adsorptivity values obtained in this study were 920 mg/g. This value is much higher compared to the results of previous studies which only reached 240 mg/g for zeolites that were heated using an oven for 3 hours.*

**Keywords:** Zeolite, HCl, Microwave, Salinity, Seawater.