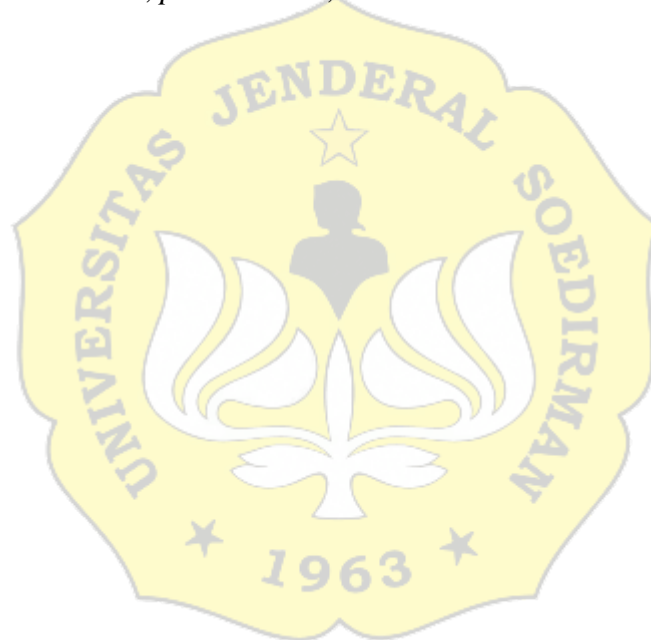


## ABSTRAK

Telah dilakukan penelitian mengenai pemanfaatan zeolit alam aktif dalam *pretreatment* pembuatan air alkali menggunakan reaktor elektrolisis sederhana. Zeolit alam aktif digunakan sebagai media pemurnian air sebelum proses elektrolisis. Parameter air yang dianalisis meliputi *power of hydrogen* (pH), *total dissolved solids* (TDS), dan *electrical conductivity* (EC). Hasil penelitian menunjukkan *pretreatment* zeolite pada laju alir 8 mL/menit mampu menjadi adsorben dalam metode pembuatan air alkali yang dapat menurunkan nilai TDS sebesar 43 % dari total TDS 74 ppm . Waktu optimum elektrolisis selama 8 jam dengan luas penampang elektroda 40 cm<sup>2</sup> dapat menaikkan pH 26,53%, TDS 21,05%, dan EC 21,25%.

**Kata kunci:** elektolisis, *pretreatment*, zeolit



## **ABSTRACT**

*Research has been conducted on the use of active natural zeolites in the pretreatment of making alkaline water using a simple electrolysis reactor. Active natural zeolite is used as a water purification medium before the electrolysis process. Water parameters analyzed include power of hydrogen (pH), total dissolved solids (TDS), and electrical conductivity (EC). The results showed that zeolite pretreatment at a flow rate of 8 mL /min was able to become an adsorbent in the method of making alkaline water which could reduce the TDS value by 43% of the total TDS of 74 ppm. The optimum electrolysis time for 8 hours with a 40 cm<sup>2</sup> electrode cross-sectional area can increase pH 26.53%, TDS 21.05%, and EC 21.25%.*

**Keywords:** *electrolysis, pretreatment, zeolite*

