

***Comparison Performance Hydrolysis Taro Beneng (Xanthosoma Undipes K
.Koch) Using Catalysts Tamarind And Leaves Tamarind***

Rahayu Dwi Agustin
Study program of renewable engineering
Majoring of technic
Program Studi Teknik Energi Terbarukan
Jurusan Teknik

ABSTRACT

Bioethanol is one alternative energy fuel by raw materials obtained from carbohydrates, starch, etc. This research using raw materials starch taro beneng with the content of 64,205 starch % could potentially as raw material bioethanol. One process of making bioethanol is hydrolysis. On hydrolysis is the determination of the processed and planning to ethanol through the next process with the help of a catalyst. Chemical normally used a catalyst .But a catalyst chemical have any negative impact on the environment that require a substitute for that is a catalyst organic with raw materials a catalyst tamarind and tamarind leaves , where the use of two the material can be raising the levels of in order to and economical of material the location and the highest degree of value acidity 2,36 to an tamarind and 2,85 for tamarind leaves . Time variations the hydrolysis was used in the study and concentration a catalyst where time that is used is 45 minutes (W1) and 60 minutes (W2) and concentration is 50 % (K2) and 57 % (K1) . Research parameter is sugar reduction (GR) , the total sugar (TG) , ph , brix and De (dextrose there) .The best result analysis test DMRT research on K1W2 where the results of tamarind is brix 42 % , GR 19,529 % , TG 34,429 % and DE 56,690 % with ethanol 32.2 % levels as much as .While the acid that is a catalyst tamarind leaves brix 20 % , GR 0,392 % , TG 30,799 % and DE 1,272 % with as much as 12.6 % levels . Such that comparison value de performance in a catalyst acid java with acid that leaves java 26,2: 1 .Performance tamarind leaves catalyst needed 26,2 times that equivalent to the performance of tamarin catalyst.

Key word : Hydrolysys, Tamarind and Tamarind Leaves