

ABSTRACT

Bioethanol is a biofuel that can be synthesized from plants that contains starches and biomass wastes that contains lignocellulose compounds. Previous research has been done that results in ethanol which uses rice straws as its ingredients by using SSF Acid Delignification (HCl) and Water SHF Hydrolysis with pH of 5.6. This research's purpose is to determine the effect of yeast weight variation and the fermentation duration variation to the ethanol level generated. This research is referring to other researches that has been done by using Base Delignification (NaOH) and Acid SHF Hydrolysis (HCl)[5]. No ethanol generated by using the SSF method while by using SHF method without adding other chemical ingredients (NaOH and HCl) an optimal ethanol level is generated in a 5-day fermentation and 30 grams of yeast yields in 4% of ethanol level. According to other researcher, the more yeast added results in more ethanol generated[5]. However, the result in the experiment that uses Water SHF Hydrolysis with pH of 5.6 and more than 30 grams of yeast, the amount of ethanol generated are not different

Key Word : Second Generation of Bioethanol, Acid Delignification (HCl), SSF method and SHF method.