

**Preliminary Study on Biethanol Production from Starchy Foodwastes by Immobilized
*Saccharomyces cerevisiae***

ABSTRACT

Dumping of food wastes into the landfill resulted in major environmental pollution. However, attempted had been made to develop these wastes into a new renewable and sustainable energy. Liquid biofuels, bioethanol can be produced from a variety of feedstock including biomass and food crops or wastes. Therefore, in this study, starchy food wastes of bread, rice and potatoes were utilized as a potential feedstock for the bioethanol production. Yeast *Saccharomyces cerevisiae* was immobilized in 2% calcium alginate beads using entrapment technique. Then, the effect of temperature on bioethanol efficiency was investigated using the immobilized yeasts. From the result, highest fermentation efficiency of 1.24% was obtained at temperature 30oC, 48 h with agitation speed of 150 rpm. However, further research and studies are required in order to optimize the bioethanol production from fermentation process of starchy foodwastes.