MAKING OF FRUIT BIOETHANOL MAJA (Aegle Marmelos L.) BY ACID HYDROLYSIS PROCESS AND FERMENTATION

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ABSTRACT

Development of bioethanol in this time still experience of assortedly [of] constraint. One of them because price of costlier bioethanol of sold oil price in Indonesia. Bioethanol expanding in Indonesia represent first generation. Therefore, require to look for [by] raw material of bioethanol other which not such a staple food, its availability abundance and less exploited by society Through this innovation [is] [done/conducted] [by] making of bioethanol of fruit of Maja with variable addition of Saccharomyces cerevisiae counted 1%, 2% and 3% [at] ferment process during 3, 4, and 5 day.

Making of etanol with fruit raw material of Maja [done/conducted] by fruit powder hydrolysis of maja become glucose. Hydrolysis [done/conducted] with addition of acid of H2So4 [at] temperature 120oC during 2 [hour/clock], later;then condensation of hidrolisa made cool. condensation of Hidrolisa cool, ferment by enhancing Sacharomyces cereviceae as media pengkonversi of glucose become etanol. [So that/ to be] getting purer bioetanol [to] process distilasi [at] temperature below/under Azeotropes.

Result of got Attempt as a whole have fulfilled SNI 3565:2009 quality 1. Test the quality of product with parameter of[is rest of maximal evaporation that is 8,9 mg / L (Maximal 25 mg / L). Highest Rendemen result of attempt [is] 7,5%

Keyword : Bioetanol, Fruit of Maja