

Bioethanol production based on lignocellulosic biomass and waste glycerol

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We are facing global warming, depletion of fossil fuels. Many studies have been focused on the production of alternative energy. Alternative energy requires a sufficient condition like a clean and affordable renewable energy source. Sustainable energy sources derived from biomass and waste have is in the spotlighted. In this study, we investigated the production of bioethanol from the different two substrate, lignocellulosic biomass and waste glycerol. We selected *Saccharomyces cerevisiae* as a strain for the ethanol production. The effects of inhibitors from hydrolysis step of lignoceluosic biomass (furan derivatives, weak acid and phenolics) and the effect of other inhibitors (high concentration of glycerol, pH and salt) included waste glycerol on ethanol production were investigated.