

Production of Volatile Fatty Acid from Lignocellulosic Biomass via Anaerobic Digestion

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The research of renewable energy continues upward for the shortage of fossil fuels. Amongst many, bioenergy is one of the renewable energies that increase production and consumption. It is an eco-friendly energy that gives positive effects. Lignocellulosic biomass is renewable, environmentally friendly and widely available. Owing to its non-edibility, lingo-cellulosic biomass does not affect food cost and can easily be obtained. However, It has need to pretreatment which is an important factor for fermentation easily especially for lingocellulosic biomass. VFA platform is one of the biofuel production platforms carried out by an anaerobic digestion. Unlike sugar platform that only uses carbohydrate for ethanol fermentation, the VFA platform uses carbohydrate, protein, and lipid from biomass giving the highest yield. There is no sterilization process because it is a mixed culture. VFA itself is of value and is a precursor to biofuel. It can be converted to alcohol by the addition of hydrogen as well as bio-diesel as a carbon source for oleaginous microorganism.