Simultaneous Saccharification and Fermentation of Pretreated Canola Straw for Ethanol Production by *Saccharomyces cerevisiae* K35

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Canola straw is considered as one of the best feedstock for bioethanol production due to it's reuseable and non-edible source. In our previous work, alkaline pretreatment of canola straw was conducted to increase the saccharification efficiency. Sodium hydroxide and aqueous ammonia were used for alkaline reagent and the major factors such as reaction temperature, reaction time and concentration of alkaline solution were optimized by using the response surface method (RSM). In this study, bioethanol was produced by simultaneous saccharification and fermentation (SSF) of *S. cerevisiae* K35 from pretreated canola straw. SSF was performed at 32 ℃ with Celluclast 1.5 L (60 FPU) and Novozyme 188 (30 CBU) as biocatalysts and submerge seed cultured *S. cerevisiae* K35 was inoculated (10% of culture medium). After the SSF, ethanol concentration was as follow; 0.75 g/L of non-pretreated canola straw, 2.10 g/L of ammonia-pretreated canola straw, 3.15 g/L of sodium hydroxide-pretreated canola straw. Finally, compared with non-pretreatment, ethanol productivity was increased above three-fold.