

Kinetics study for xylan hydrolysis during biomass pretreatment process using hot compressed water

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Biomass pretreatment was studied to use biomass as base material for producing polymer. Biomass pretreatment was carried out using hot compressed water. Biomass which was used in this study was Corn stover sawdust the size of which was 40 mesh to 60 mesh. pretreatment was carried out in 26.7ml batch reactor. Biomass pretreatment using HCW was conducted at various temperatures and reaction times. Pretreated biomass was analyzed using HPLC.

Kinetics study was conducted using these results. During the reaction hemicellulose was hydrolysed more than other compounds. Thus hydrolysis of hemicellulose, especially xylan, was studied.