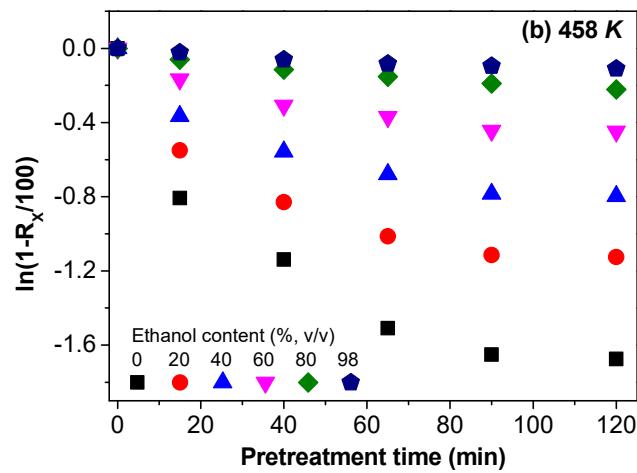
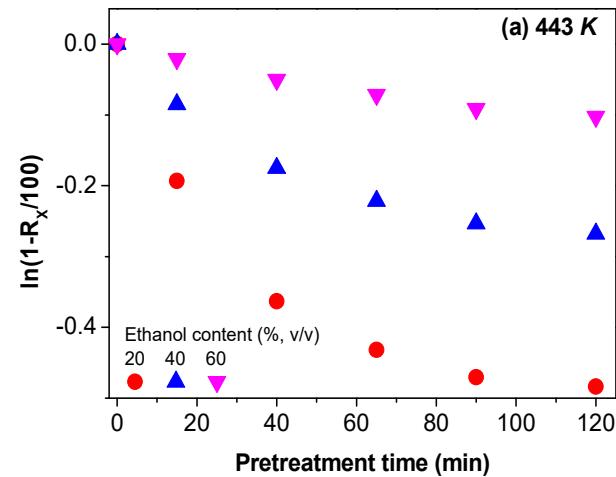
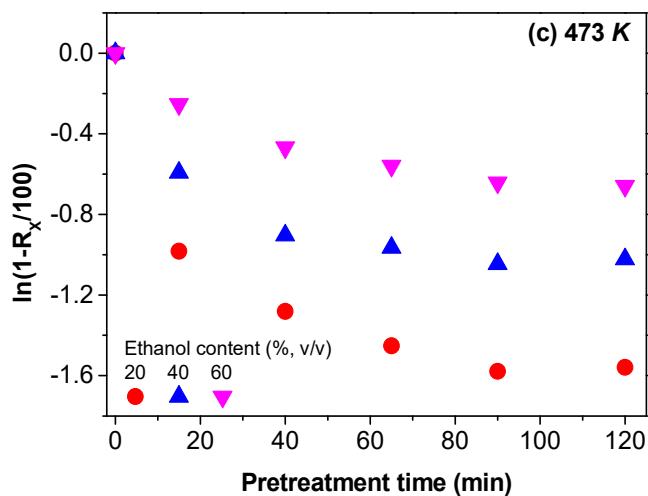


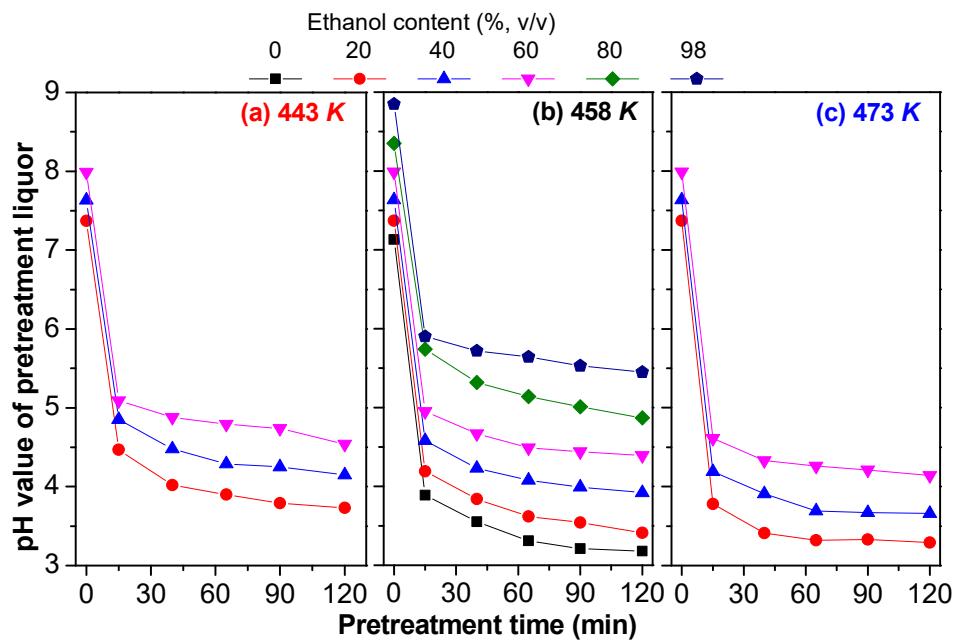
# Supplementary Materials: Novel Kinetic Models of Xylan Dissolution and Degradation during Ethanol Based Auto-Catalyzed Organosolv Pretreatment of Bamboo

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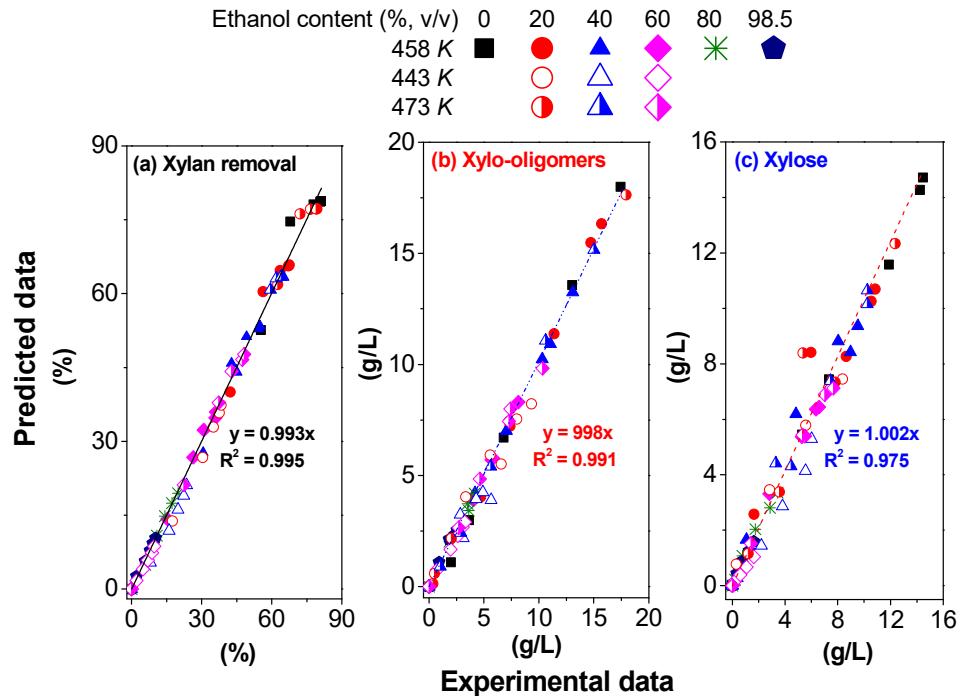




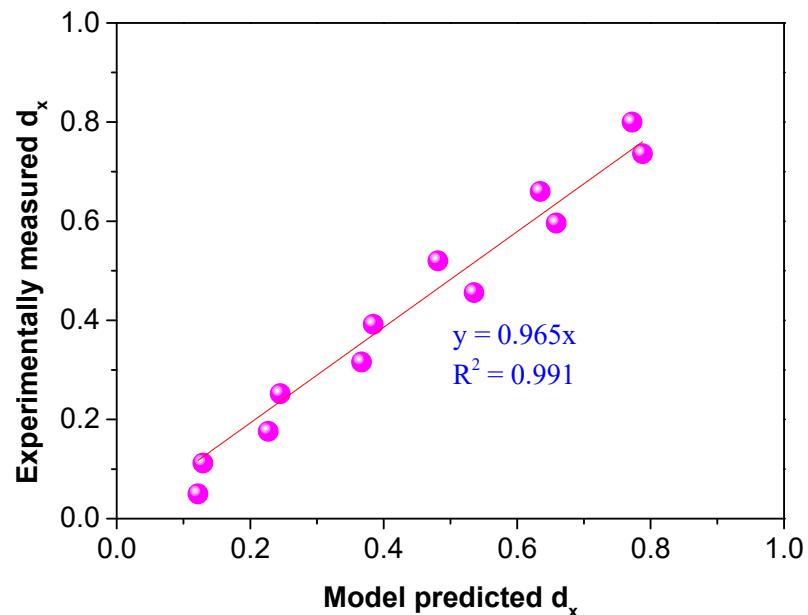
**Figure S1** The relationship between  $\ln(1-R_x/100)$  and  $t$  at EACO pretreatment temperature of (a) 443, (b) 458 and (c) 473 K.



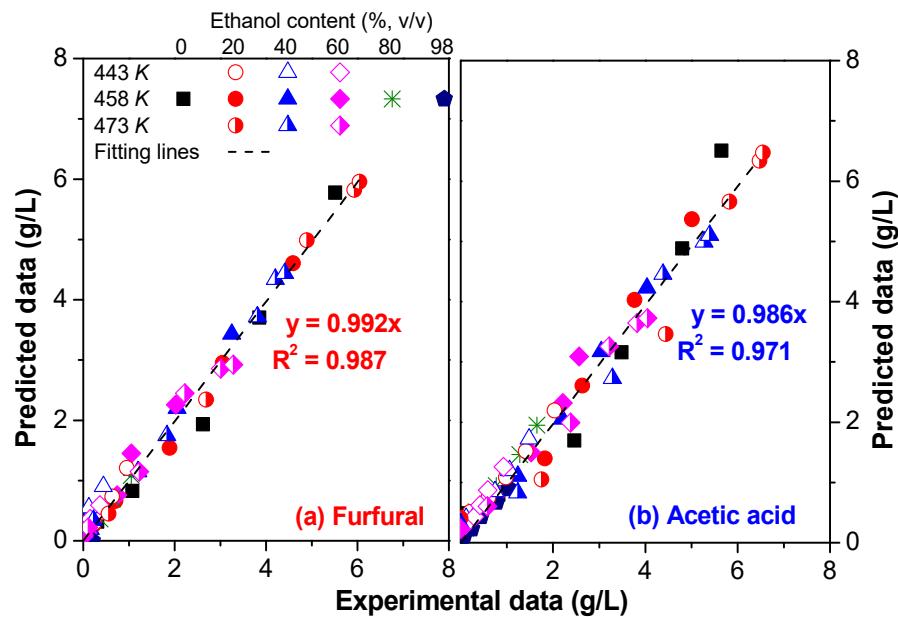
**Figure S2** pH value of pretreatment liquor at EW pretreatment temperature of (a) 443, (b) 458 and (c) 473 K with different ethanol content in pretreatment medium.



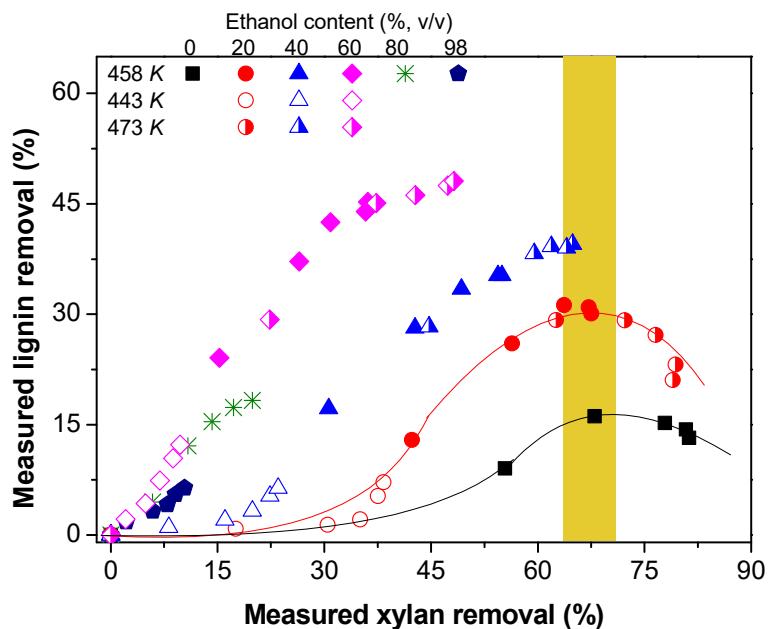
**Figure S3** Comparisons of measured and model predicted data under different conditions of EACO pretreatments: (a) xylan removal; (b) xylo-oligosaccharides and (c) xylose concentration.



**Figure S4** The relationship between experimentally measured “ $d_x$ ” and its predicted value.



**Figure S5** The relationships between measured and predicted concentration of degradation products:  
(a) F and (b) AA.



**Figure S6** The relationship between experimentally measured xylan and lignin removal.