Supporting information

A clean and effective potassium hydroxide pretreatment of corncob residue for the enhancement of enzymolysis at high solid loading

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Figure S1. The self-made incubator with vertical rotary disc for enzymatic hydrolysis at high solid loading.

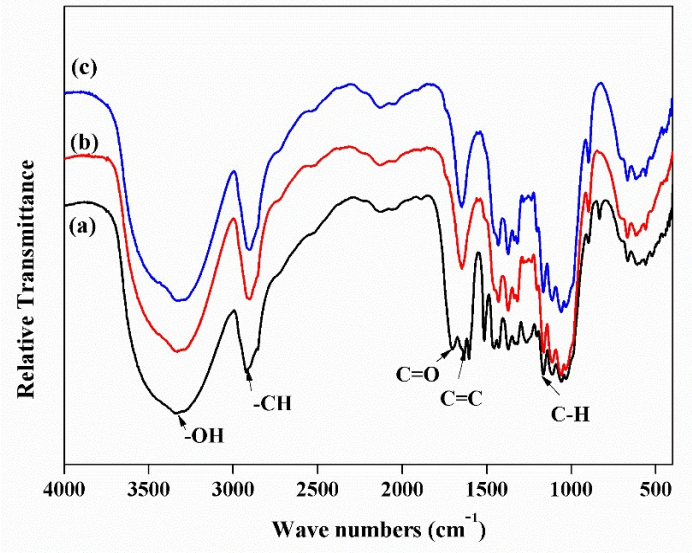

Figure S2. FTIR spectra of CCR samples before and after KOH pretreatment (a, raw CCR; b, pretreated CCR with 10 wt.% KOH; c, pretreated CCR with 16 wt.% KOH).

Table S1. Summary of CCR chemical band assignment of FTIR

Band position (cm^{-1})	**Assignment**
3430	-OH stretching
2900	C-H stretching (CH_2)
1715	C=O stretching in lignin
1640	O-H bending of absorbed water
1600, 1510	aromatic skeletal vibration of lignin
1314	CH_2 rocking vibration at C6
1261	C-O stretching in esters of Ar-O
1168, 1106, 1057, 1031	C-O-C asymmetrical stretching
898	C-O-C stretching at the β-(1–4)-glycosidic linkages
832	CH out-of-plane deformation of benzenes
662	C-OH out-of-plane bending

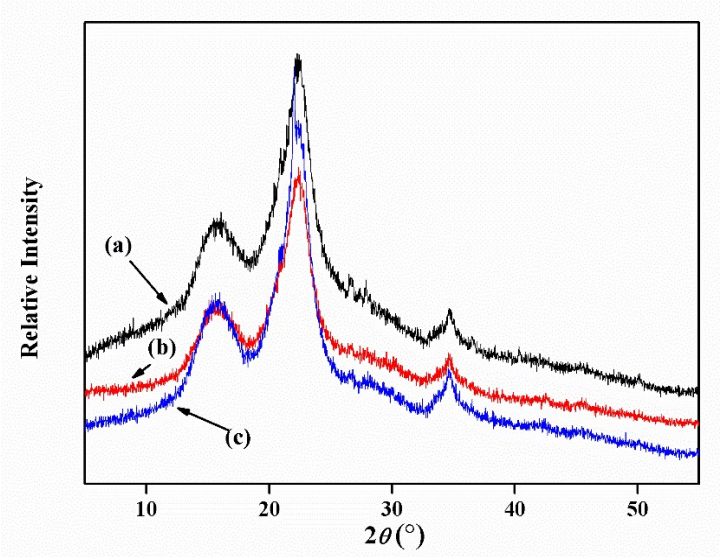

Figure S3. XRD patterns of CCR samples before and after KOH pretreatment (a, raw CCR; b, pretreated CCR with 10 wt.% KOH; c, pretreated CCR with 16 wt.% KOH).