

## Supporting Materials

**Table S1.** Summary of pretreatment conditions for separating main components of Moso bamboo.

Condition			Yield (%)
Samples	NaOH (wt%)	EtOH (%)	
P <sub>1</sub>	1	60	73.4
P <sub>2</sub>	2	60	78.5
P <sub>3</sub>	4	20	91.9
P <sub>4</sub>	4	60	83.3
P <sub>5</sub>	4	80	88.9

**Table S2.** Typical FTIR absorbance of functional groups in cellulose, hemicellulose and lignin.

Label	Wavenumber (cm <sup>-1</sup> )	Functional groups
<b>C</b>	3440	Hydroxyl O-H
	2880	C-H single bond
	1640	Absorbed O-H
	1440	Flexural vibration of C-H bond
	1120	C-OH bending
	910	$\sigma$ C-H
<b>H</b>	3433	Hydroxyl O-H
	2922	C-H single bond
	1614	Associated hydroxyl O-H
	1520	Expansion vibration of benzene ring
	1400-1200	Aliphatic C-H deformation vibrations
	1200-1000	C-OH bending
	750	phenolic hydroxyl O-H
<b>L</b>	1720	C=O
	1640	Aromatic hydrocarbon
	1516	Expansion vibration of benzene ring
	1240	C-O-C
	796	Phenolic hydroxyl O-H