

Table S1 Hydrolysis of cellulose comparison with recently reported chemical procedures.

Solid acids (amount)	Cellulose (amount)	Solvent (amount)	Temp. (°C)	Time	Total yield of saccharides (%)	Yield of glucose (based on cellulose) (%)	Ref.
Sulfonated carbon (0.3 g)	Avicel (25 mg)	H ₂ O (0.7 mL)	100	3 h	64	4	[28]
Sulfonated carbon (50 mg)	Avicel (45 mg)	H ₂ O (5 mL)	150	24 h	43	41	[6,7]
Sulfonated CMK(0.3 g)	Pretreated (270 mg)	H ₂ O (27 mL)	150	24 h	Not reported	74.5	[8]
HNbMoO ₆ (0.2 g)	Avicel (100 mg)	H ₂ O (5 mL)	130	12 h	8.5	0.7	[10]
Fe ₃ O ₄ -SBA-SO ₃ H (1.5 g)	Microcrystalline (1.5 g)	H ₂ O (15 mL)	150	3 h	Not reported	50	[4]
H-Y (10 mg)	Avicel (100 mg)	[BMIM]Cl (2 g), H ₂ O (10 mg)	MW (240W)	8 min	48	37	[29]
Amberlyst 15DRY (H ⁺ : 4.6mmol)	α – cellulose (5.0 g)	[BMIM]Cl (100 g), H ₂ O (111 mmol)	100	2h	12	3	[30]
Active carbon catalyst (0.25g)	Regenerated cellulose (0.25 g)	H ₂ O (5 mL)	150	24	Not reported	46.6	[31]
PW ₁₂ O ₄₀ (0.08 mmol)	Microcrystalline (100 mg)	H ₂ O (5 mL)	180	2h	54	51	[13]
CS _{2.5} H _{0.5} PW ₁₂ O ₄₀ (0.08 mmol)	Microcrystalline (100 mg)	H ₂ O (5 mL)	160	6h	9.1	8.2	[15]
0.70 M aq. H ₅ BW ₁₂ O ₄₀	Crystalline (100 mg)	H ₂ O (2 mL)	60	48	82	77	[16]
0.70 M aq. H ₃ BW ₁₂ O ₄₀	Pretreated (40 mg)	H ₂ O (2 mL)	60	24	97	82	[16]
Sn _{0.75} PW ₁₂ O ₄₀ (0.07 mmol)	Sigma Aldrich (188mg)	H ₂ O (6 mL)	150	2h	23	Not reported	[11]
H ₃ PW ₁₂ O ₄₀ (0.07 mmol)	Sigma Aldrich (188mg)	H ₂ O (6 mL)	150	2h	18	15	[11]
CS ₂ SnPW ₁₂ O ₄₀ (0.68 g)	Microcrystalline (1.6 g)	H ₂ O (65 mL)	190	24h	28	Not reported	[17]
CS _{3.5} SiW300 (1g)	Microcrystalline (1.0 g)	H ₂ O (50 mL)	100	24	Not reported	<0.5	[18]
CS _{2.5} PW600 (1g)	Microcrystalline (1.0 g)	H ₂ O (50 mL)	95	8h	Not reported	<0.5	[18]
(CTA)H ₂ PW ₁₂ O ₄₀ (0.07 mmol)	Microcrystalline (100 mg)	H ₂ O (7 mL)	170	8h	40.2	39.3	[25]
[MIMPS]H ₂ PW (0.07 mmol)	Microcrystalline (100 mg)	H ₂ O (0.5 mL), MIBK (5 mL)	140	5h	40.2	36	This work

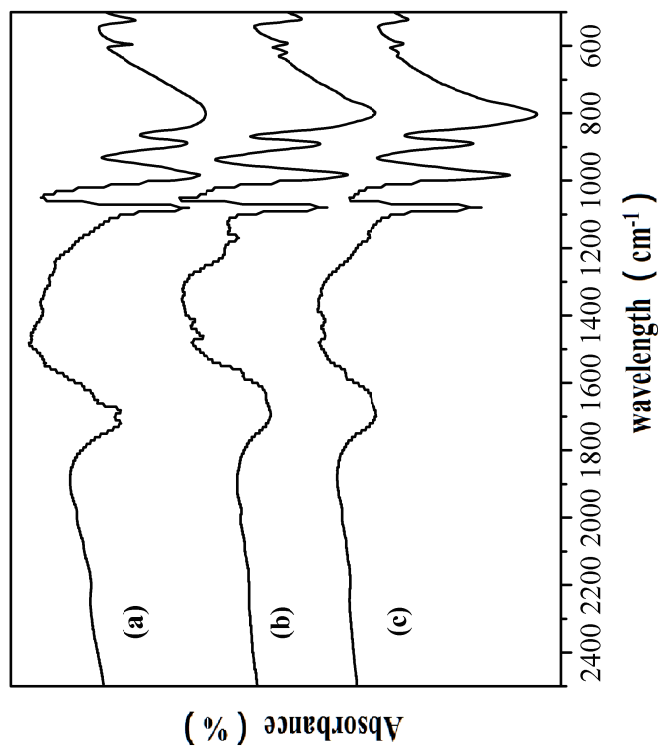


Fig. S1 FT-IR spectra of H₃PW₁₂O₄₀ (a) and [MIMPSH]H₂PW (fresh (b) and recycle (c))

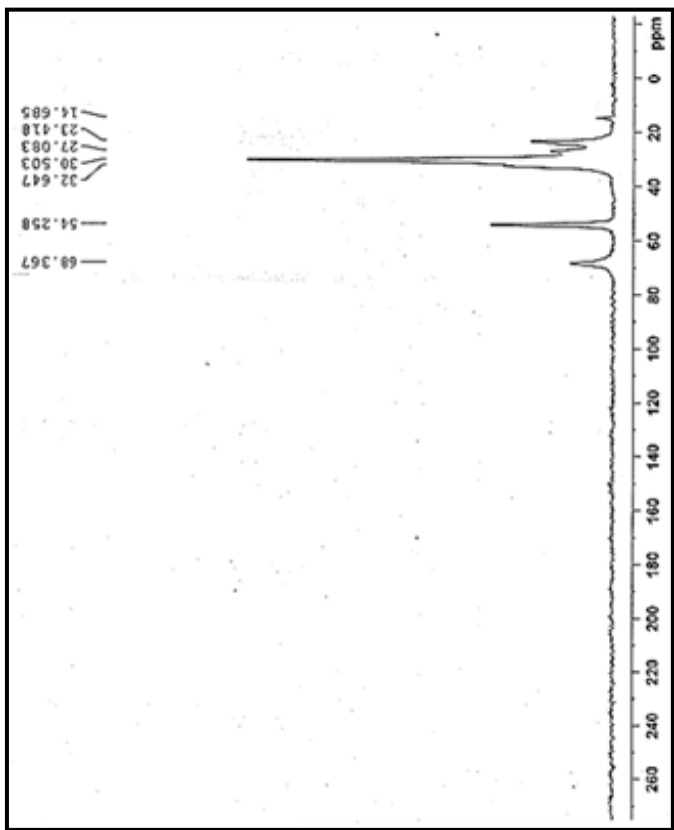


Fig. S2 The solid ^{13}C NMR of $[\text{MIMPS}]\text{H}_2\text{PW}$

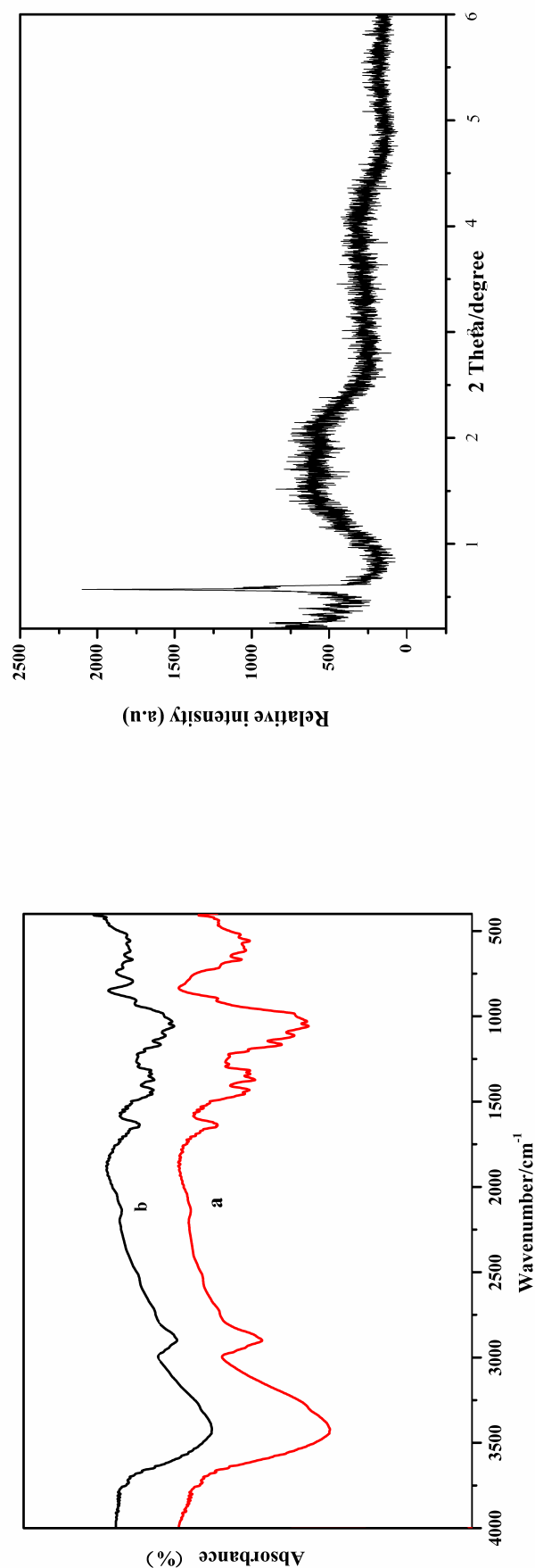


Fig. S3 The IR (left) of (a) cellulose and (b) the cellulose after reaction. XRD (right) of cellulose after reaction