

Supplementary Information

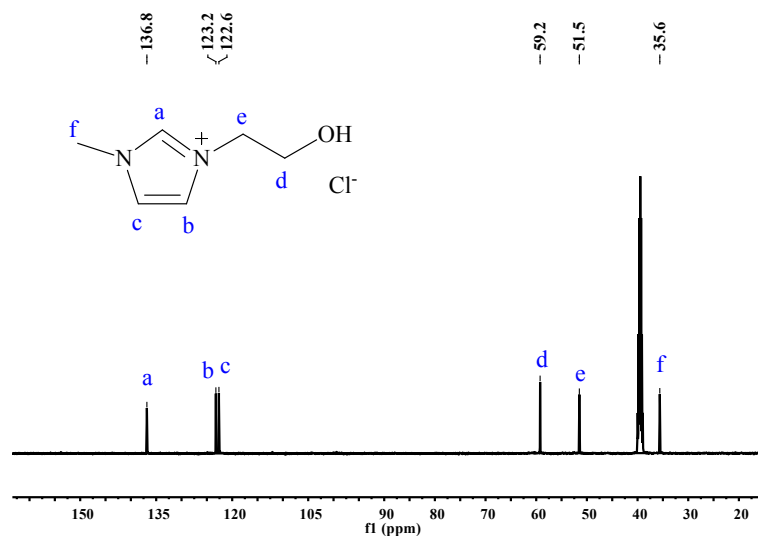


Fig. S1 ¹³C NMR spectrum of [EmimOH]Cl

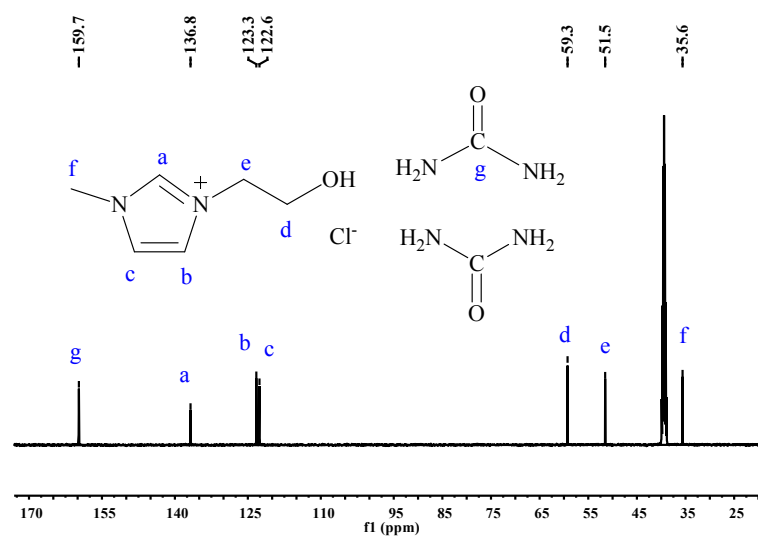


Fig. S2 ¹³C NMR spectrum of [EmimOH]Cl-2Urea

Table S1 Different catalytic systems reported in the literatures

Entry	Catalyst	Solvent	T/ °C	t/h	m _{cat} :m _{PC}	n _{PC} :n _{CH₃OH}	C _{PC} /%	Y _{BPA} /%
1	NaOH ¹⁴	Toluene	60	1.17	0.026:1	1:2	100	96
2	ZnO-NPs/NBu ₄ Cl ¹⁸	THF	100	7	0.33:1	1:28	100	98
3	CaO/Ce-SBA-15 ²⁰	THF	130	3	0.3:1	1:8	100	94
4	[Bmim][Cl] ²¹	—	105	2.5	1:1	1:1.5	100	95
5	[Bmim][Ac] ²²	—	90	2.5	0.75:1	1:6	100	95
6	[Bmim]Cl·2.0FeCl ₃ ²³	—	120	3	0.1:1	1:6	100	97
7	[HDBU][LAc] ²⁴	—	120	1	0.05:1	1:5	100	98
8	[HDBU][Im] ²⁵	—	70	2	0.1:1	1:5	100	96
9	ChCl-2Urea ⁴³	—	130	2.5	0.1:1	1:5	100	99
10	[EmimOH]Cl-2Urea ^a	—	120	2	0.1:1	1:5	100	99

^a this work; ^bconversion of PC; ^c yield of BPA

Oku et al.¹⁴ used NaOH as a catalyst and toluene as a solvent for the methanolysis of PC with 96% Y_{BPA}. Solid bases ZnO-nPs/NBu₄Cl¹⁸ and CaO/Ce-SBA-15²⁰ were also used to catalyze this reaction, not only THF was used as the solvent, but also a large amount of methanol (n(methol)/n(PC)=28, 8) and catalyst (m(cat)/m(PC)=0.33, 0.3). The reaction time was long (7 h, 3 h) and the reaction temperature was also a little high (130 °C). Ionic liquids (ILs) such as [Bmim][Cl],²¹ [Bmim][Ac],²² [Bmim]Cl·2.0FeCl₃,²³ [HDBU][LAc]²⁴ and [HDBU][Im]²⁵ can significantly reduce the methanolysis temperature and shorten the reaction time, but the synthesis process of ILs is cumbersome, costly, metal ions contaminate the product²³ and cannot be biodegraded. In our previous work, deep eutectic solvent (DES) ChCl-2Urea⁴³ was successfully used to catalyze the PC methanolysis, with 100% C_{PC} and 99% Y_{BPA} at 130 °C for 2.5 h. Compared with ChCl-2Urea, [EmimOH]Cl-2Urea not only decreased the reaction temperature but also shortened reaction times in this work.