Electronic Supplementary Material (ESI) for Physical Chemistry Chemical Physics.

Imidazole tailored deep eutectic solvents for CO_2 capture enhanced by hydrogen bond

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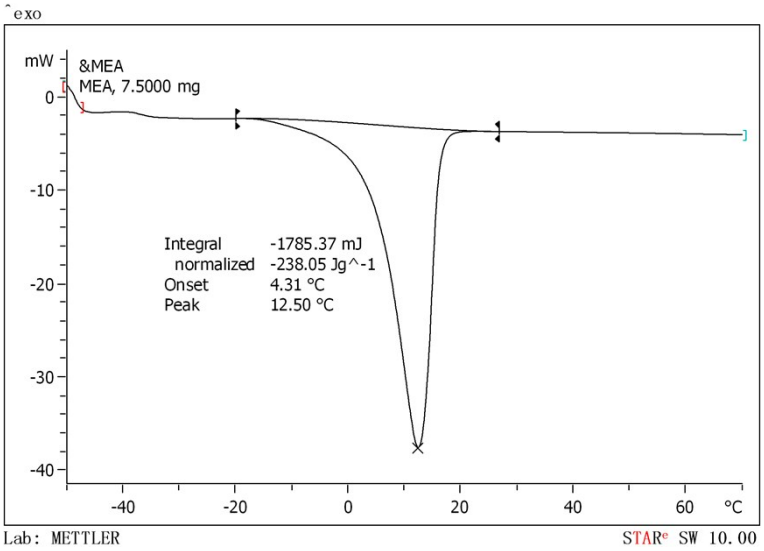

Fig. S1 DSC trace of pure MEA.

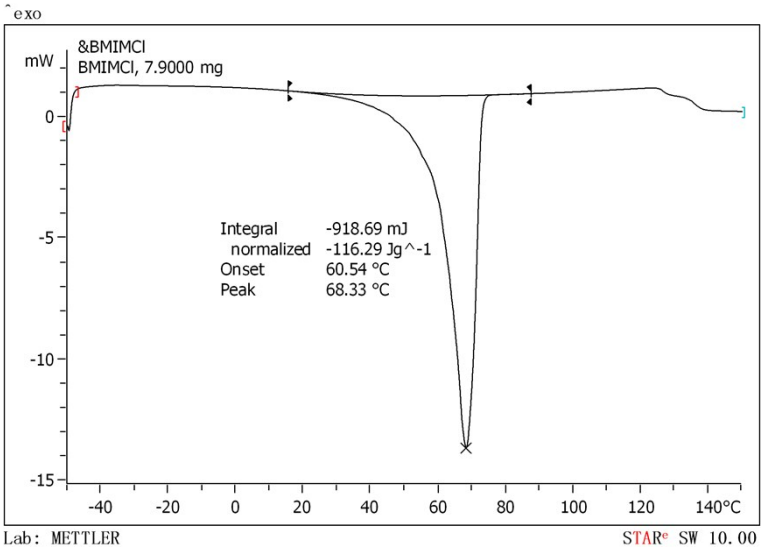

Fig. S2 DSC trace of pure BMIMCl.

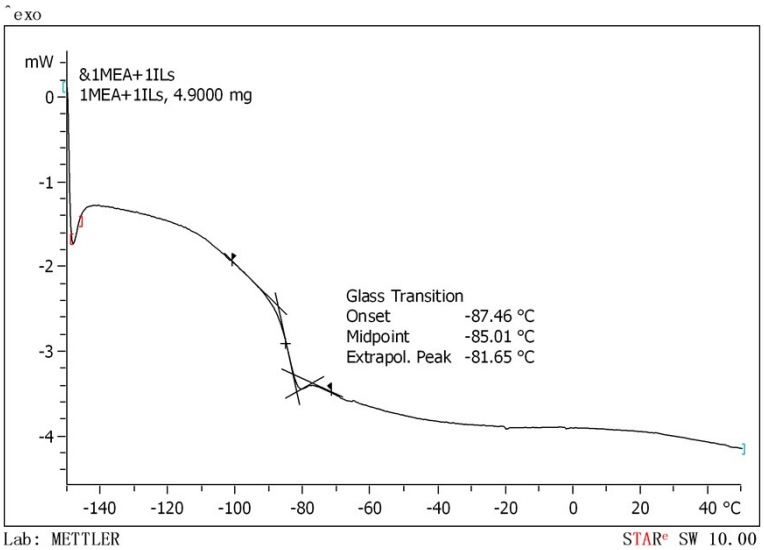

Fig. S3 DSC trace of MEA:ILs(1:1).

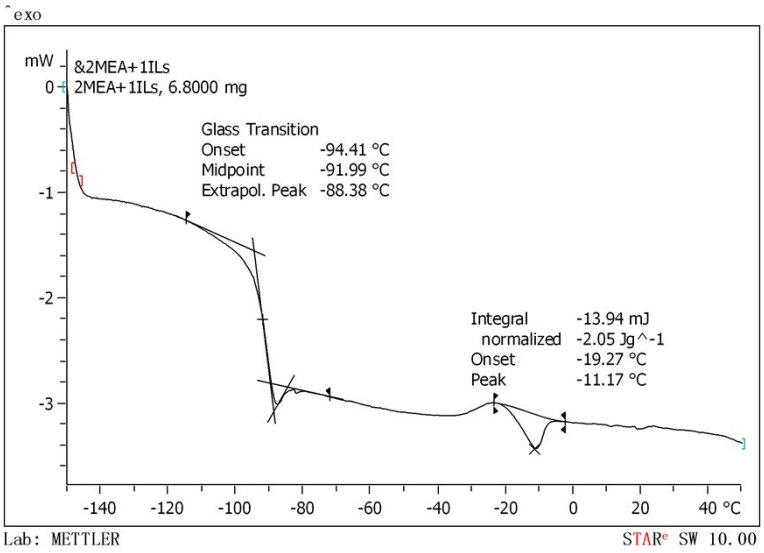

Fig. S4 DSC trace of MEA:ILs(2:1).

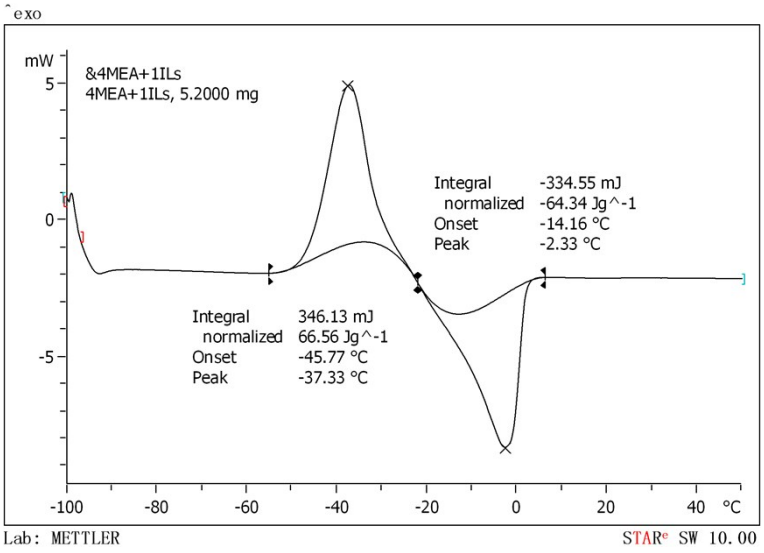

Fig. S5 DSC trace of MEA:ILs(4:1).

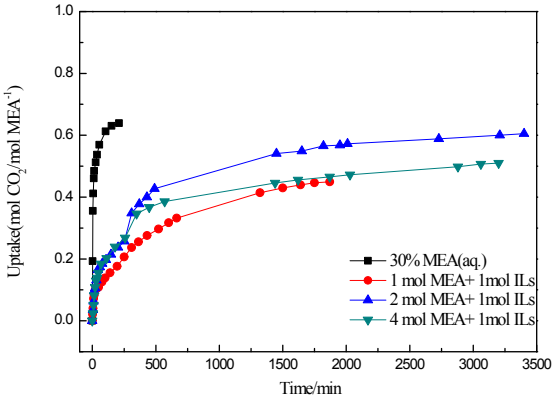

Fig. S6 CO_2 uptake as a function of bubbling time at room temperature.

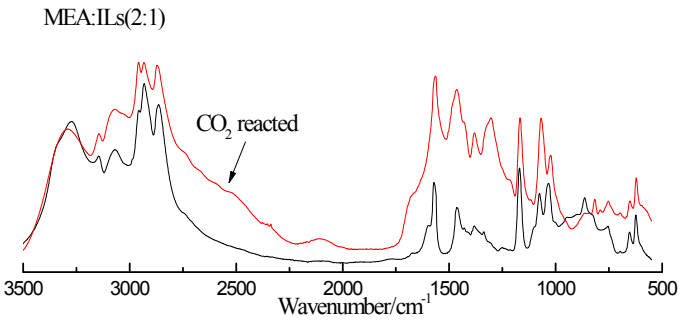

Fig. S7 ATR-IR spectra of MEA:ILs(2:1) before and after CO_2 absorption.

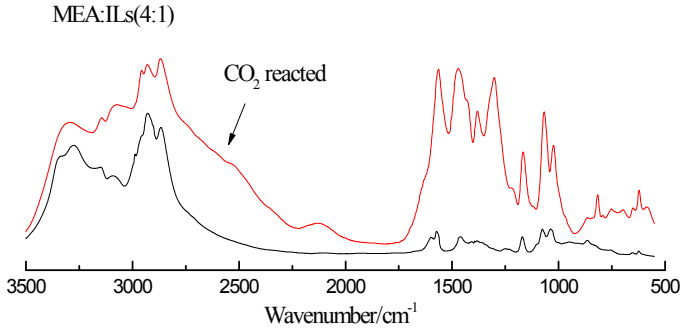

Fig. S8 ATR-IR spectra of MEA:ILs(4:1) before and after CO_2 absorption.

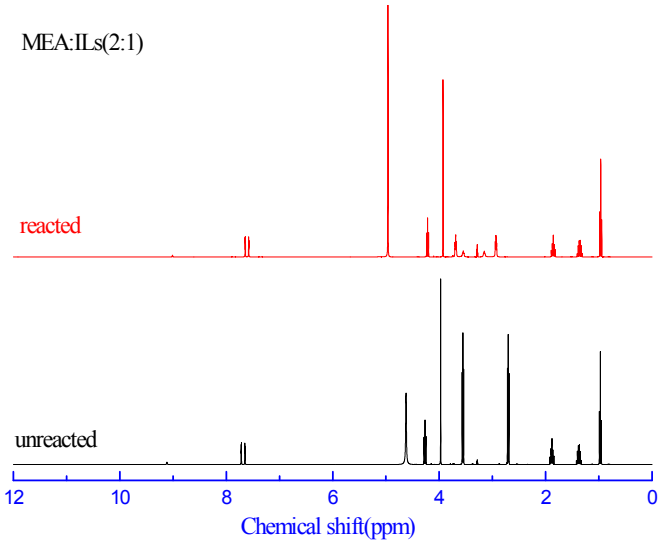

Fig. S9 ^{1}H NMR spectra of MEA:ILs(2:1) before and after CO_2 absorption.

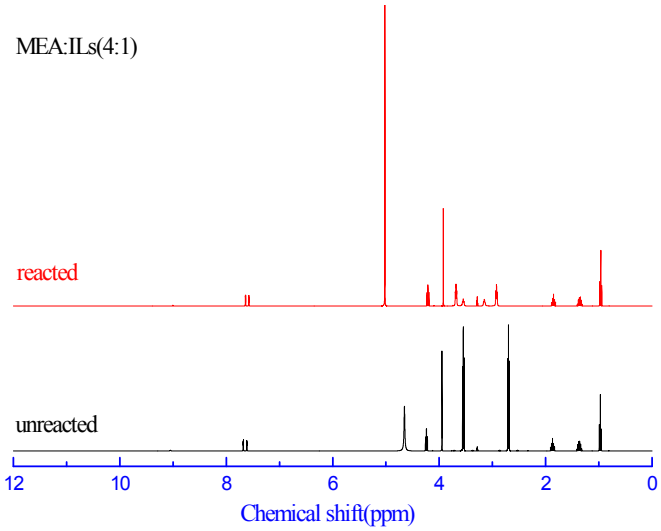

Fig. S10 ^{1}H NMR spectra of MEA:ILs(4:1) before and after CO_2 absorption.

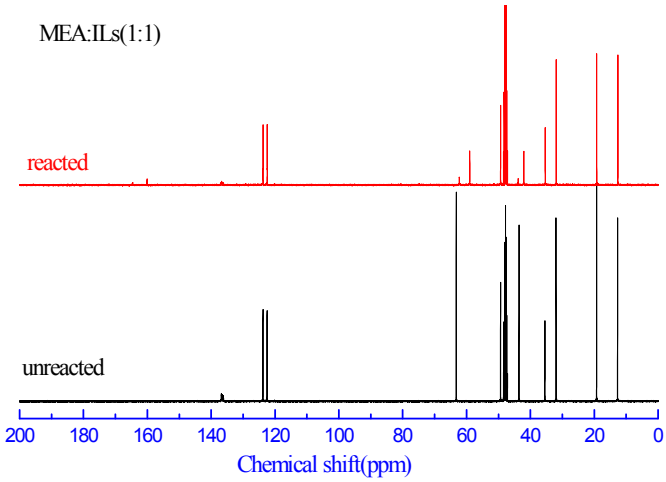

Fig. S11 ^{13}C NMR spectra of MEA:ILs(1:1) before and after CO_2 absorption.

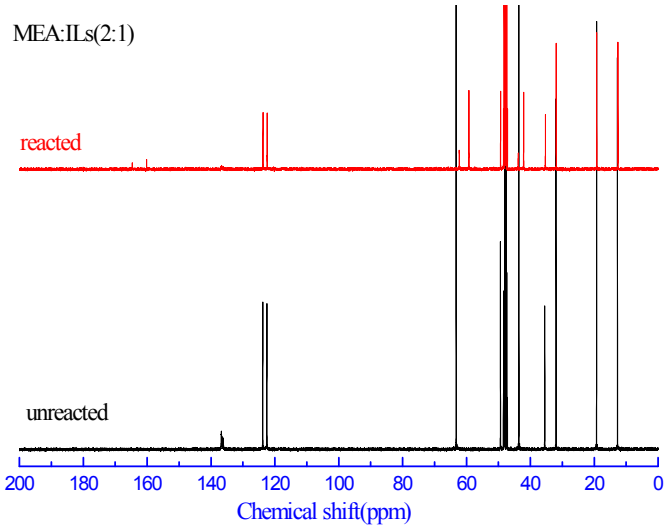

Fig. S12 ^{13}C NMR spectra of MEA:ILs(2:1) before and after CO_2 absorption.

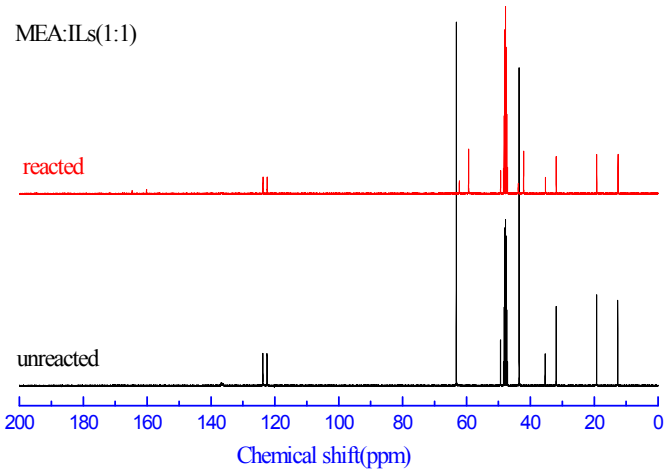

Fig. S13 ^{13}C NMR spectra of MEA:ILs(4:1) before and after CO_2 absorption.

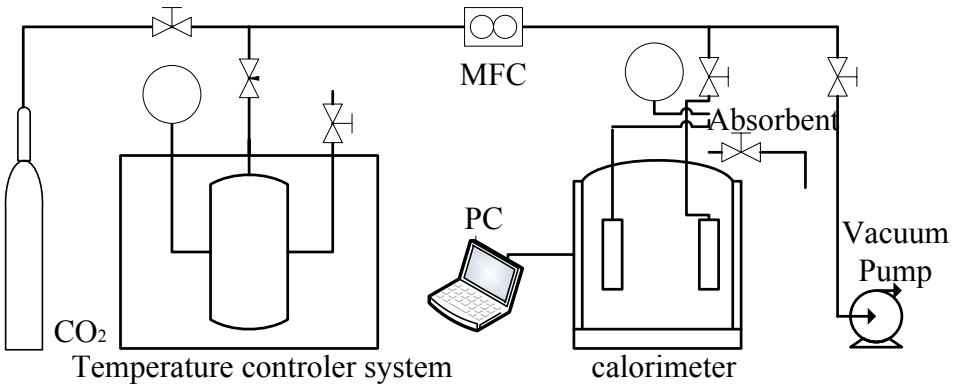

Fig. S14 Experimental setup of calorimeter BT 2.15.

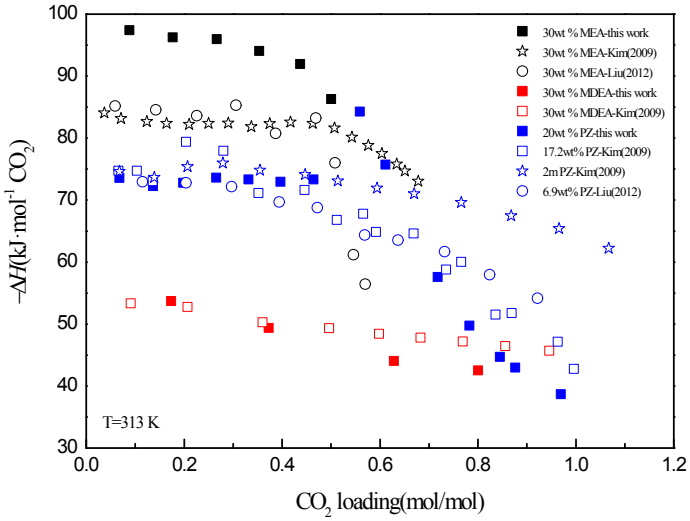

Fig. S15 Heat of absorption of CO_2 in aqueous solution of MEA, MDEA and PZ.