1   # Electronic Supplementary Material

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3   **Development of different deep eutectic solvents aqueous biphasic systems for the**

4   **separation of protein**

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16 **Table S1** Elemental analysis of bottom phase after extraction.

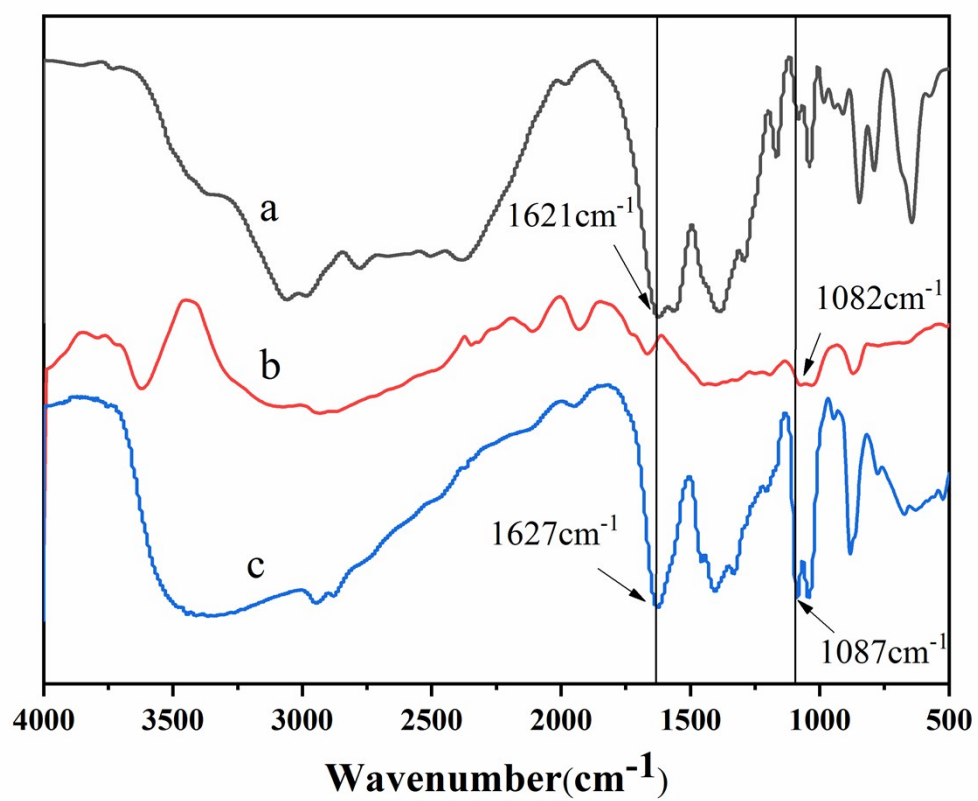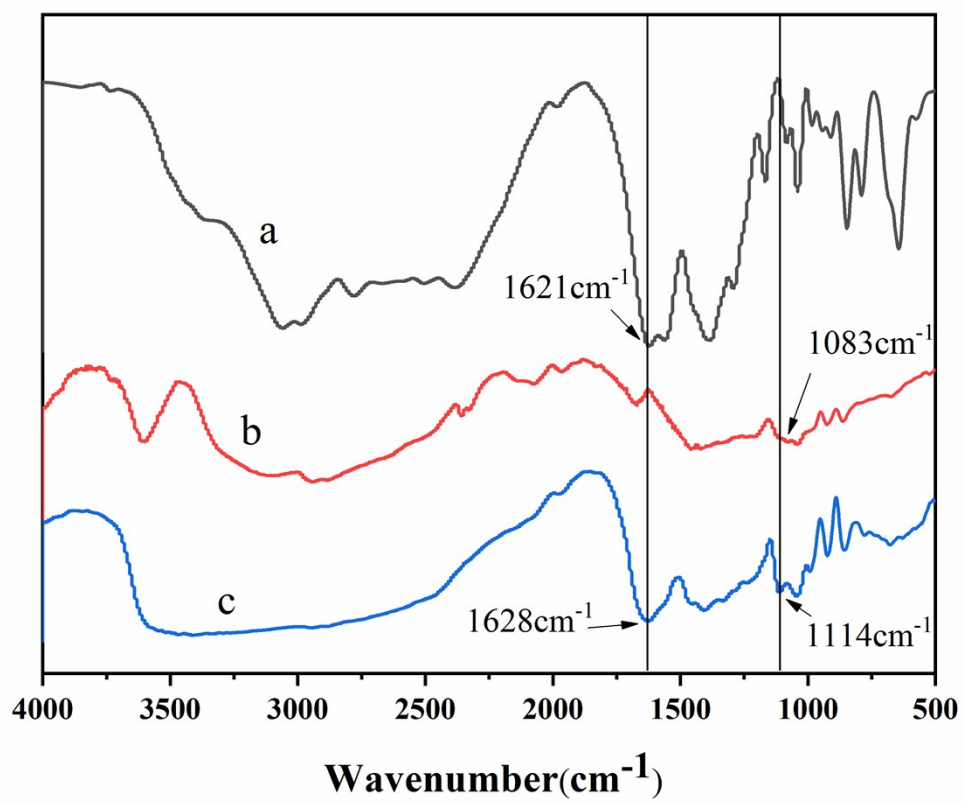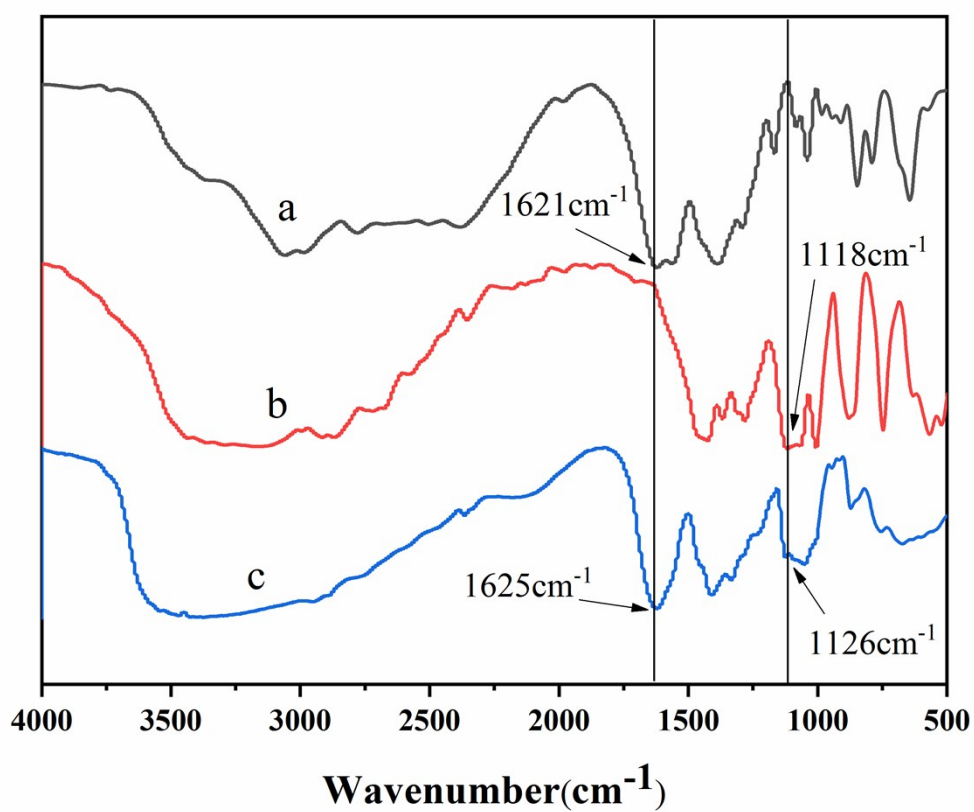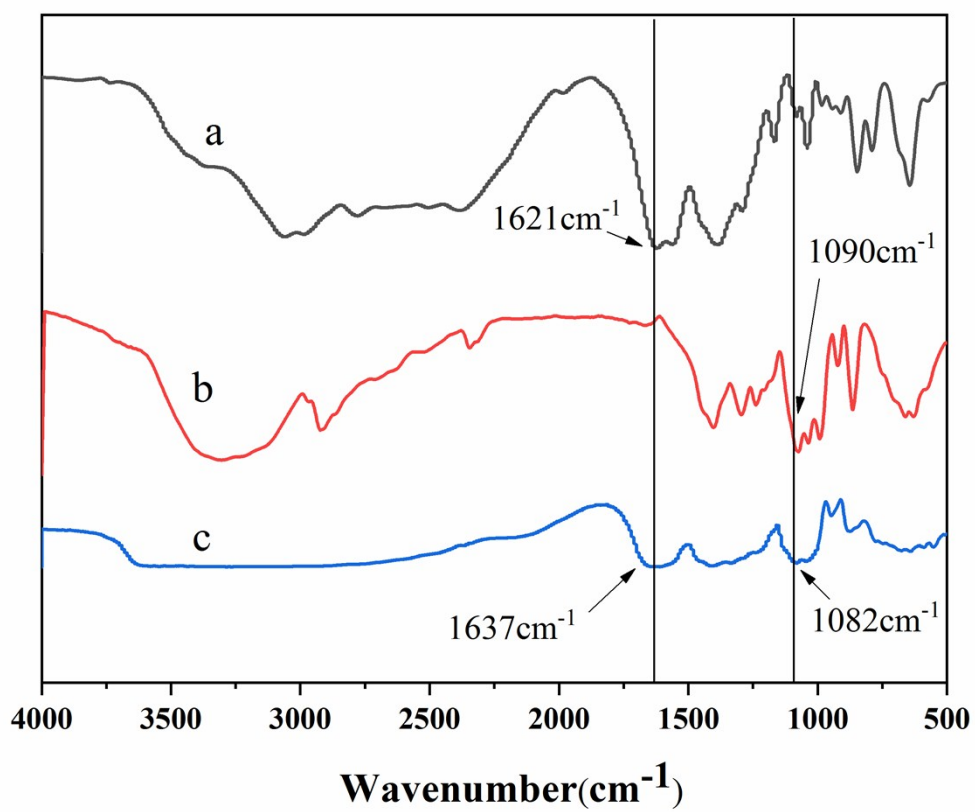| Element	C	H	O	N	Cl	Cl (in theory)
Content (g/mL)	0.0110	0.00292	0.0324	0.00171	0.000672	0.0109
Content (%)	22.850	6.150	67.350	3.570	0.08	1.31

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Fig. S1 FT-IR spectra of DES and individual components: (a) L-proline; (b) ethylene glycol; (c) [Pro][EG];

21 **Fig. S2** FT-IR spectra of DES and individual components: (a) L-proline; (b) glycerol;
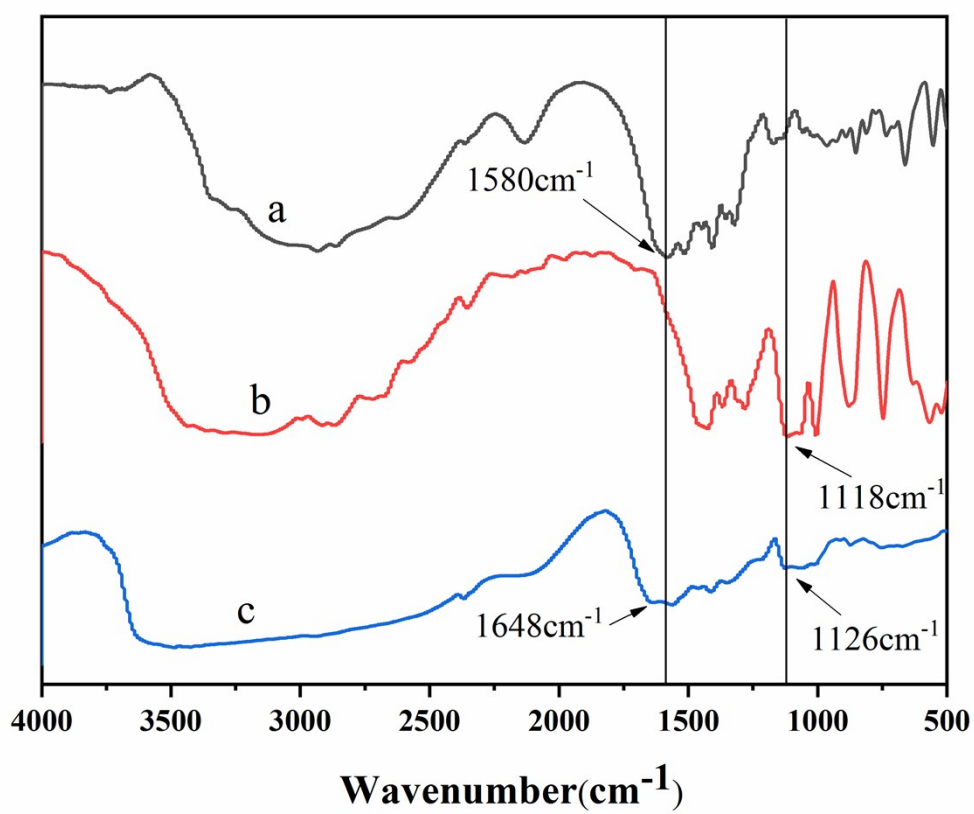
22 (c) [Pro][G];

23 **Fig. S3** FT-IR spectra of DES and individual components: (a) L-proline; (b) xylitol; (c)
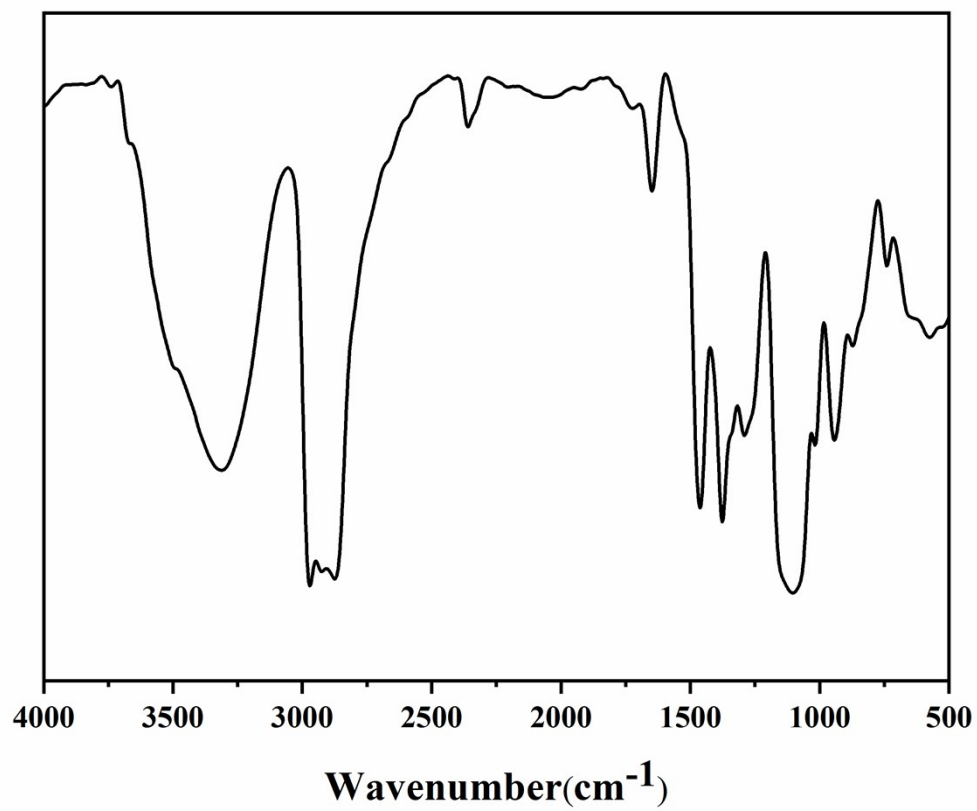
24 [Pro][Xyl];

25 **Fig. S4** FT-IR spectra of DES and individual components: (a) L-proline; (b) D-
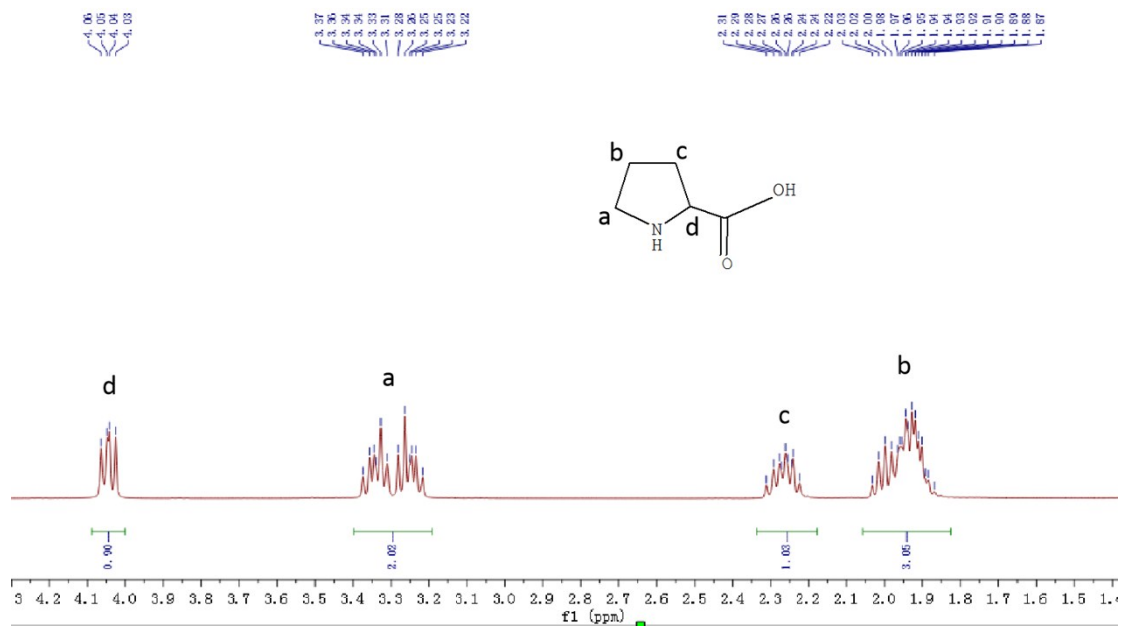
26 sorbitol; (c) [Pro][Sor];

27 **Fig. S5** FT-IR spectra of DES and individual components: (a) lysine; (b) xylitol; (c)
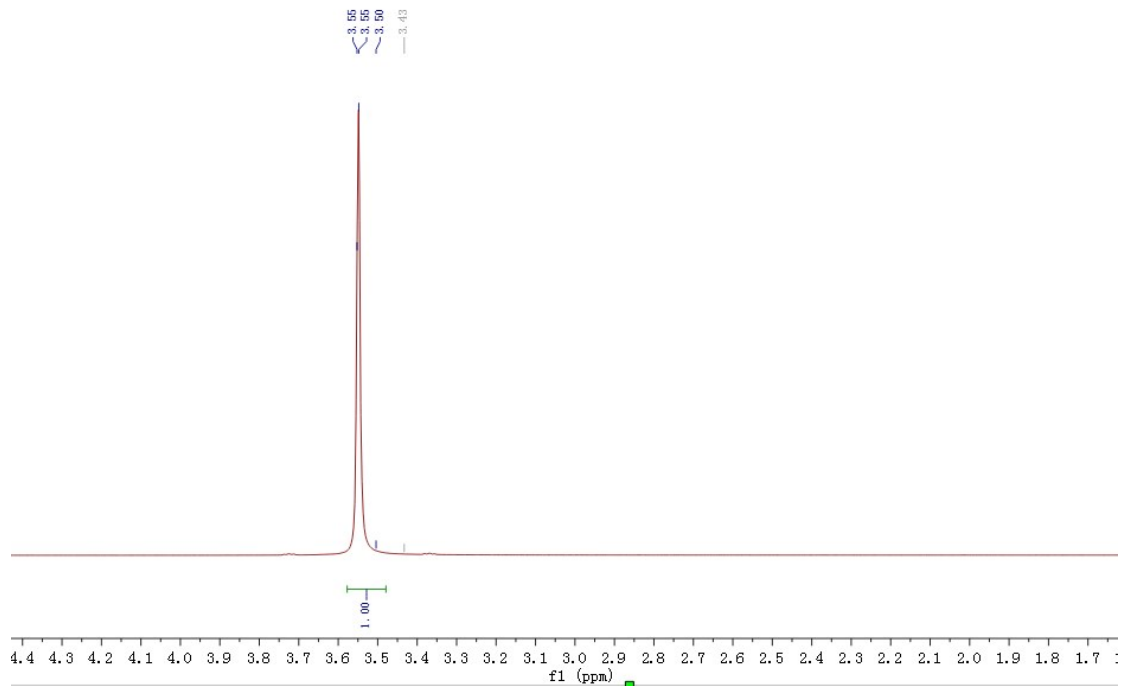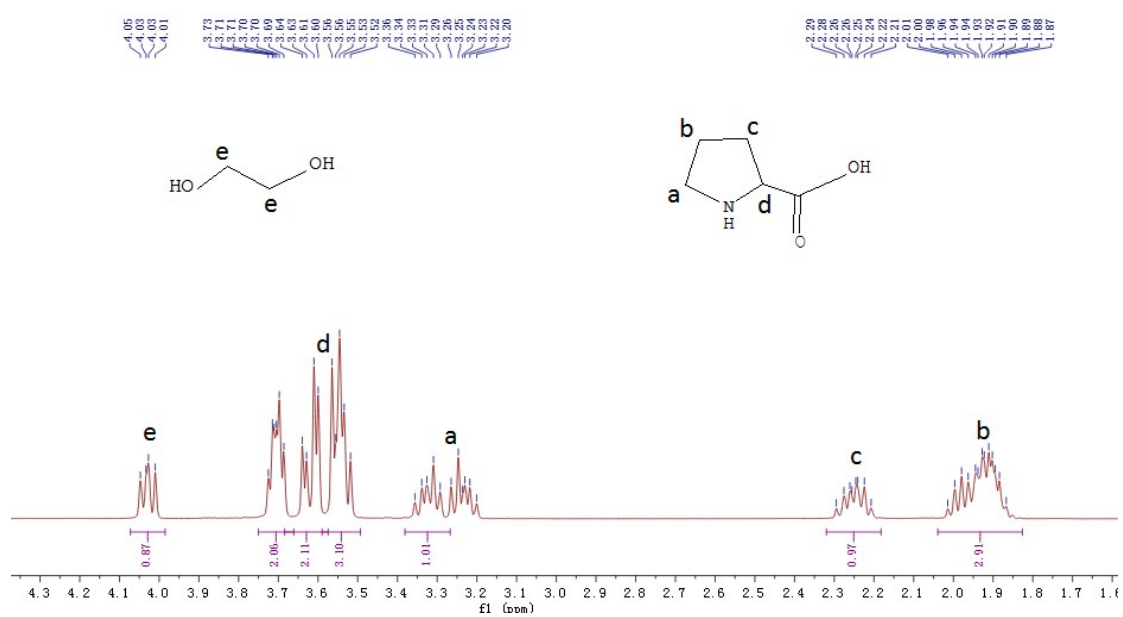
28 [Lys][Xyl];

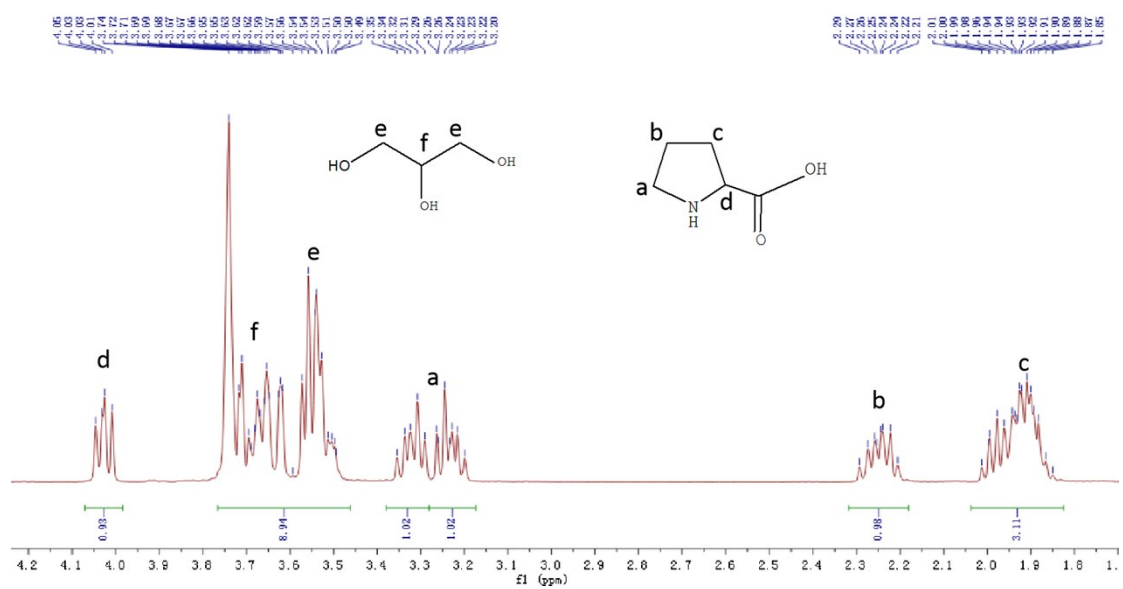29 **Fig. S6** FT-IR spectra of [TBAC][PPG400] DES;

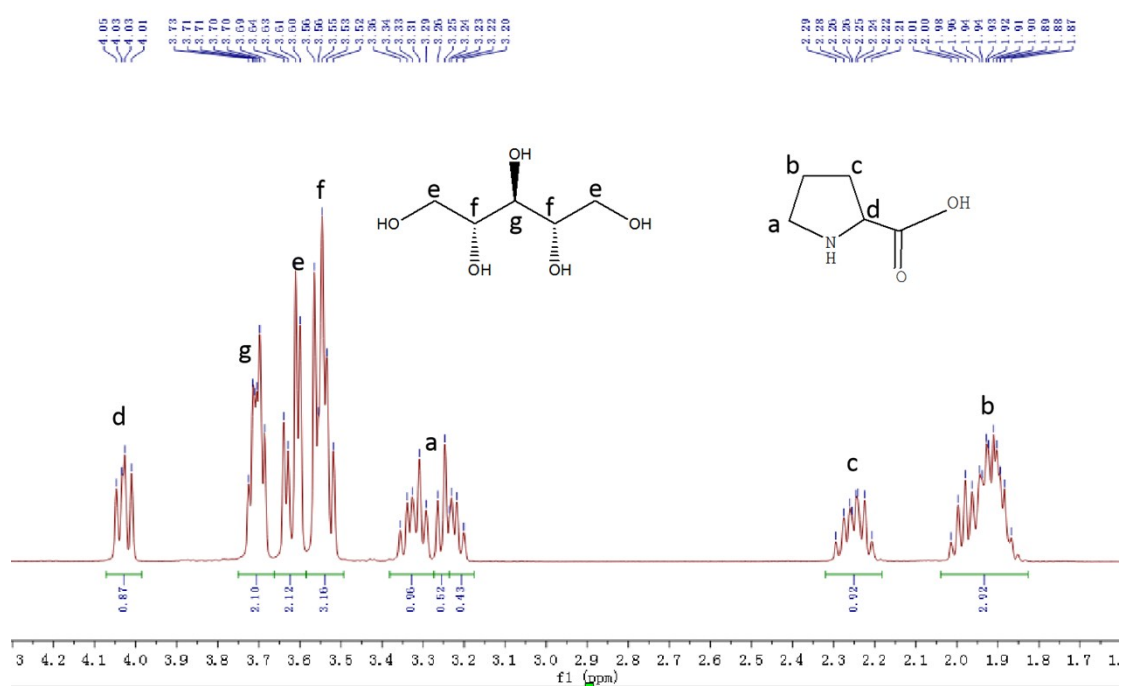30 **Fig. S7** ^{1}H NMR spectra of L-proline.

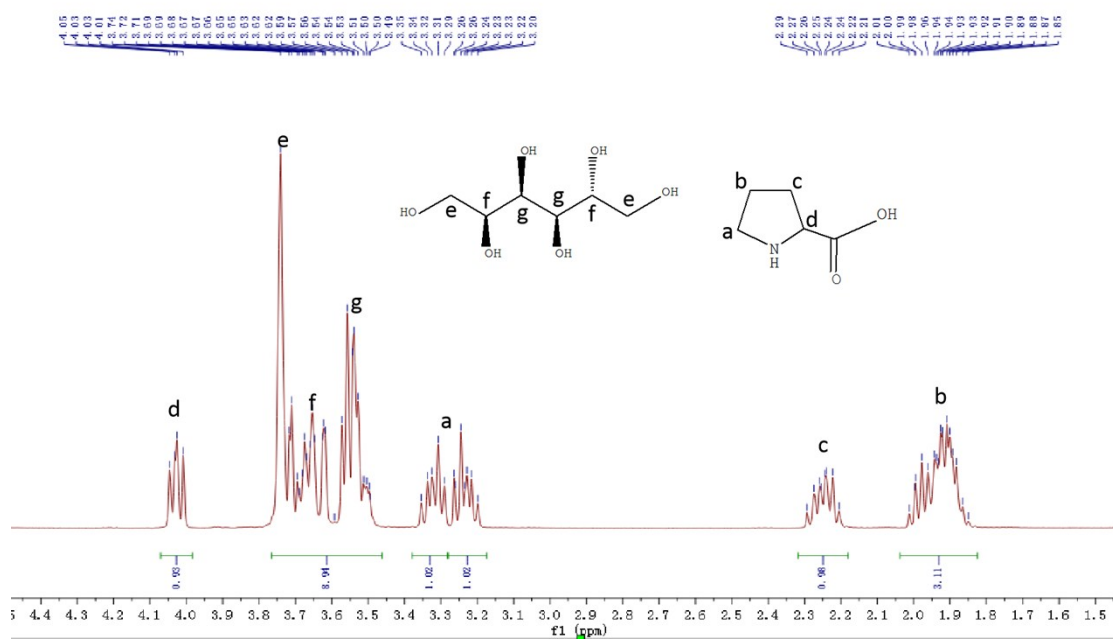

31 **Fig. S8** ^{1}H NMR spectra of ethylene glycol.

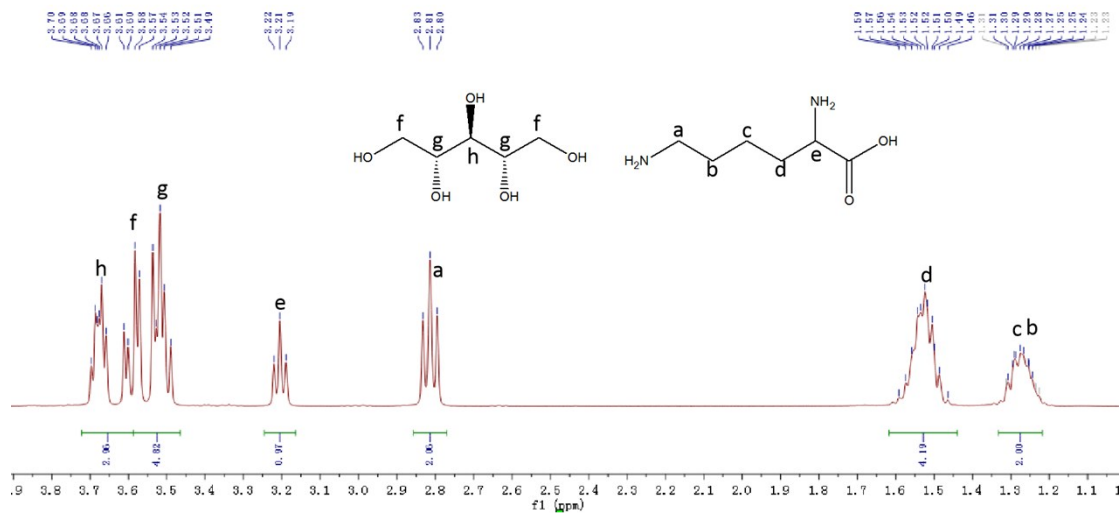32   **Fig. S9** ^{1}H NMR spectra of [Pro][EG].

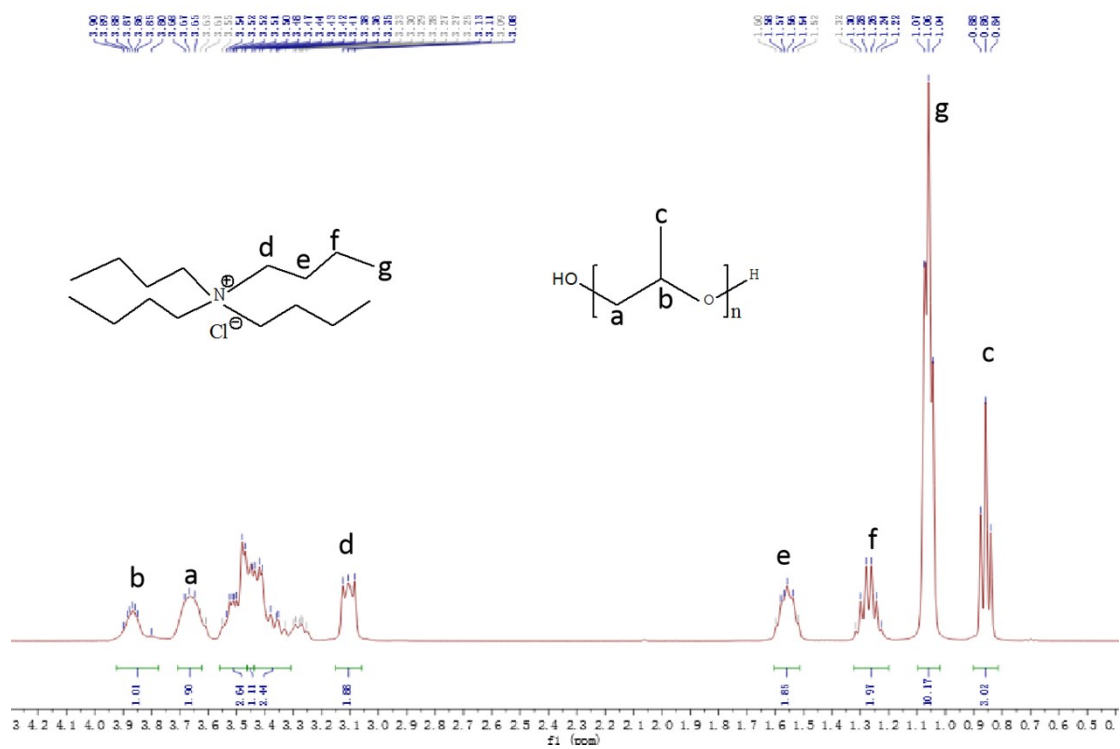33   **Fig. S10** ^{1}H NMR spectra of [Pro][G].

34   **Fig. S11** ^{1}H NMR spectra of [Pro][Xyl.

35   **Fig. S12** ^{1}H NMR spectra of [Pro][Sor].

36 **Fig. S13** ^{1}H NMR spectra of [Lys][Xyl].

37 **Fig. S14** ^{1}H NMR spectra of [TBAC][PPG400].