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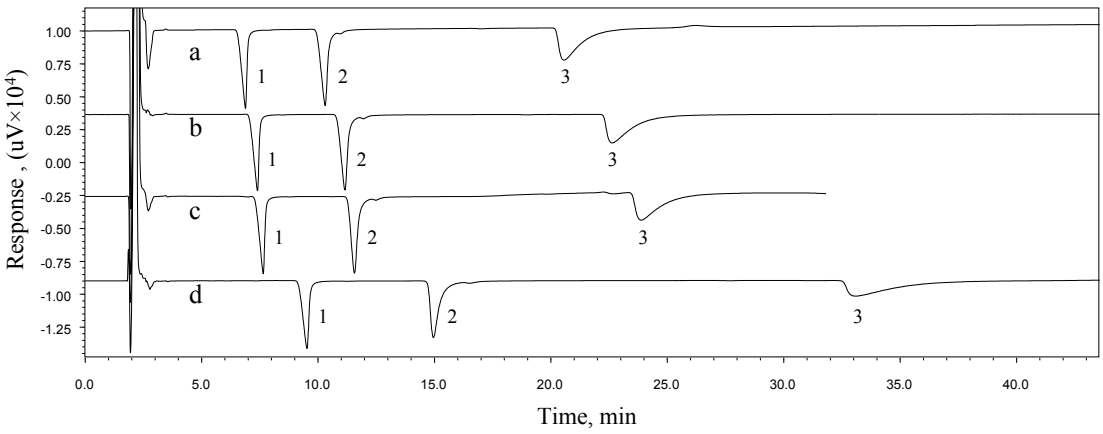

Fig. S1 Chromatograms obtained with mobile phases containing different imidazolium ILs.

a, [EMIm][BF_4]; b, [PMIm][BF_4]; c, [BMIm][BF_4]; d, [AMIm][BF_4]. Chromatographic conditions: column, TSK-GEL Amide-80 HR (4.6 mm i.d. × 250 mm, 5 μm); mobile phase, 0.8 mM imidazolium ILs/acetonitrile (40/60, v/v); indirect ultraviolet detection, 210 nm; flow rate, 1.0 mL min^{-1}; column temperature, 35°C. Peaks: 1, $[TBA]^+$; 2, $[TPA]^+$; 3, $[TEA]^+$ (The concentration of each cation is 50 mg L^{-1}).

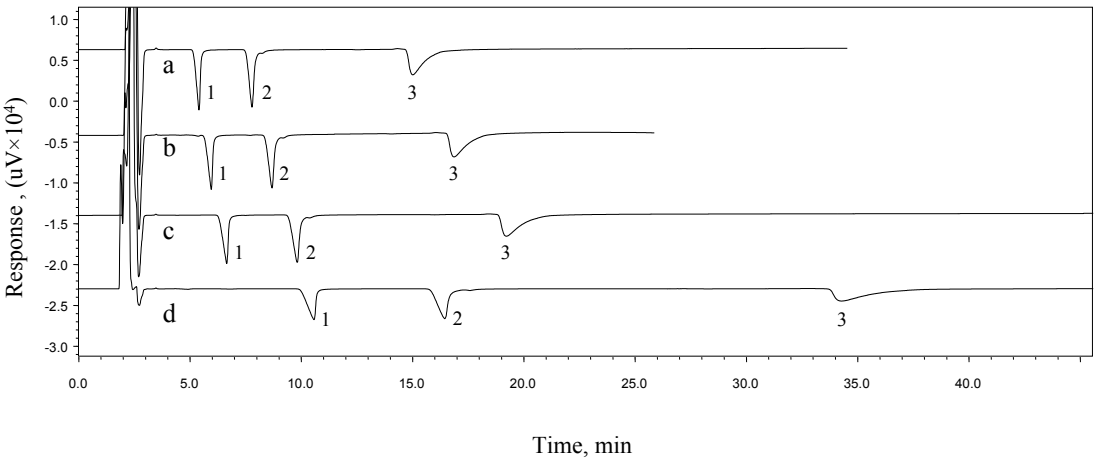

Fig. S2 Chromatograms obtained with mobile phases containing different concentrations of [EMIm][CF_3COO].

a, 1.2; b, 1.0; c, 0.8; d, 0.5 mM. Chromatographic conditions: mobile phase, [EMIm][CF_3COO]/acetonitrile (40/60, v/v); other chromatographic conditions and peak marks are as in Fig. S1.

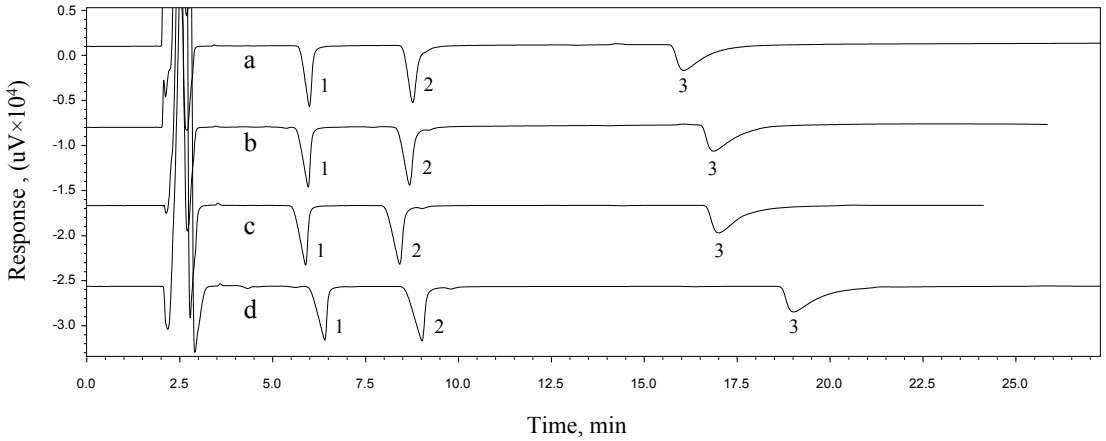

Fig. S3 Chromatograms obtained with mobile phases containing different acetonitrile content. a, 55%; b, 60%; c, 65%; d, 70%. Chromatographic conditions: mobile phase, 1.0 mM [EMIm][CF_3COO]/acetonitrile (v/v); other chromatographic conditions and peak marks are as in Fig. S1.