

## Supplementary Data

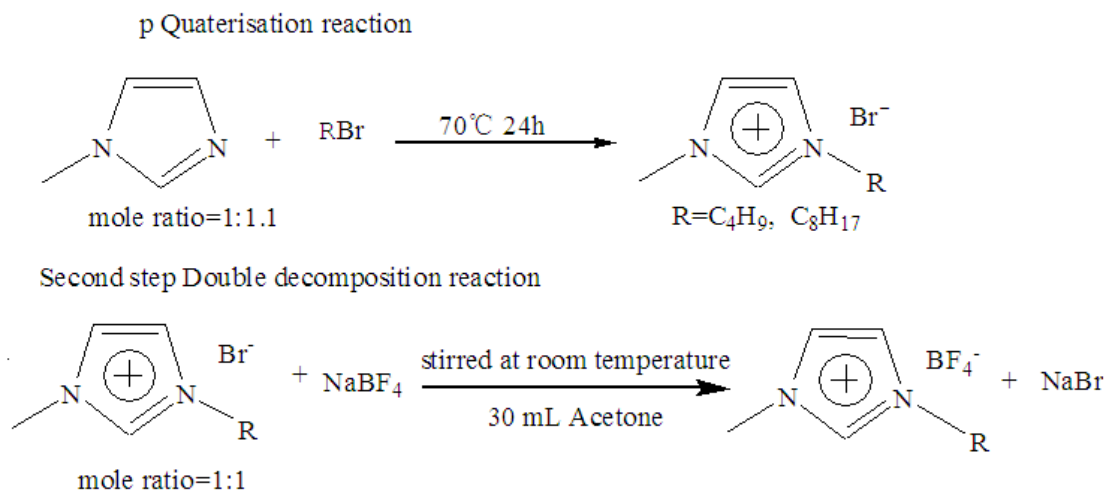


Fig. S1 Synthetic route

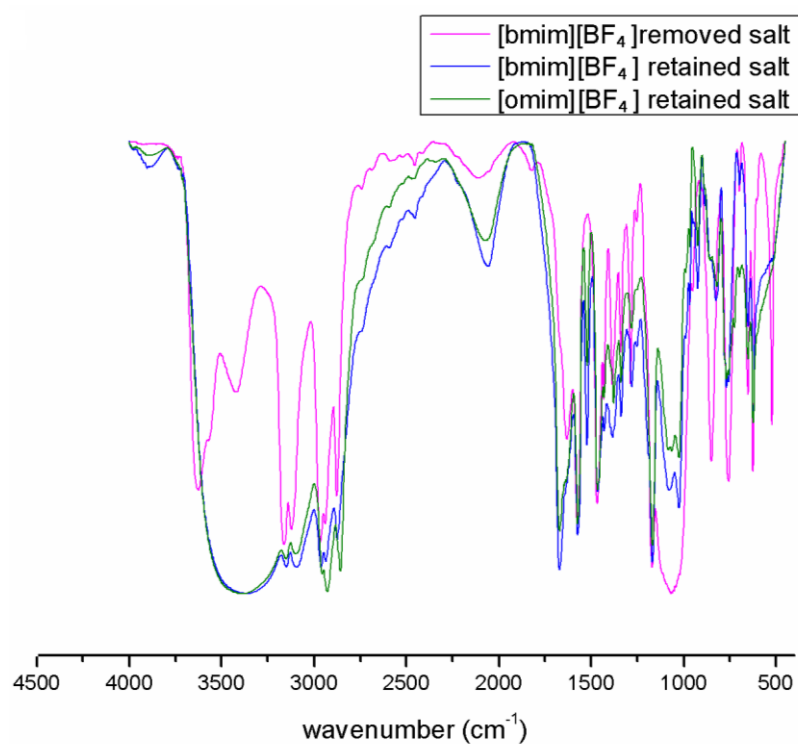


Fig. S2 Infrared spectroscopy of ILs

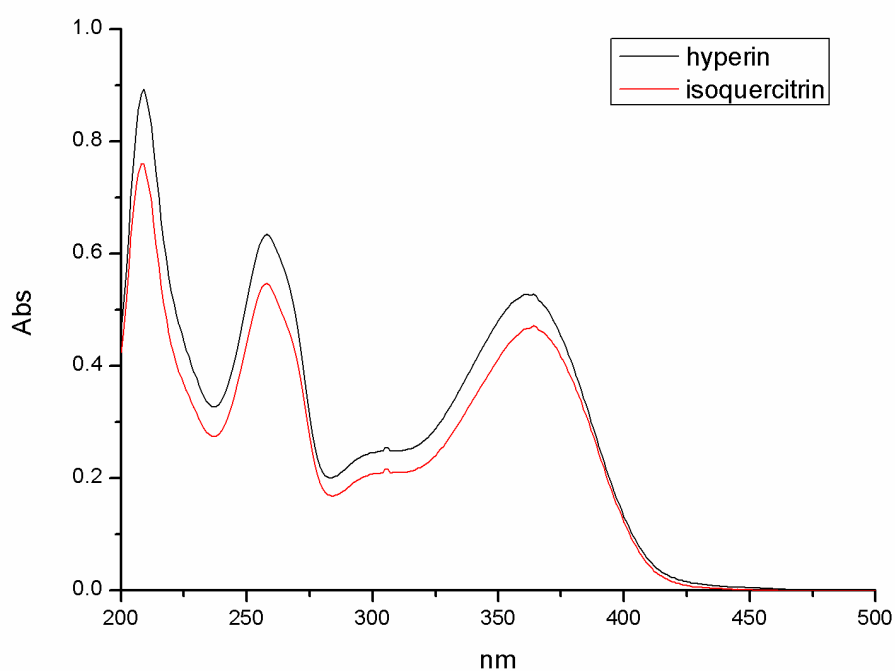


Fig. S3 Absorbance spectra of 0.08 mg/mL hyperin and 0.06 mg/mL isoquercitrin  
(methanol as blank)

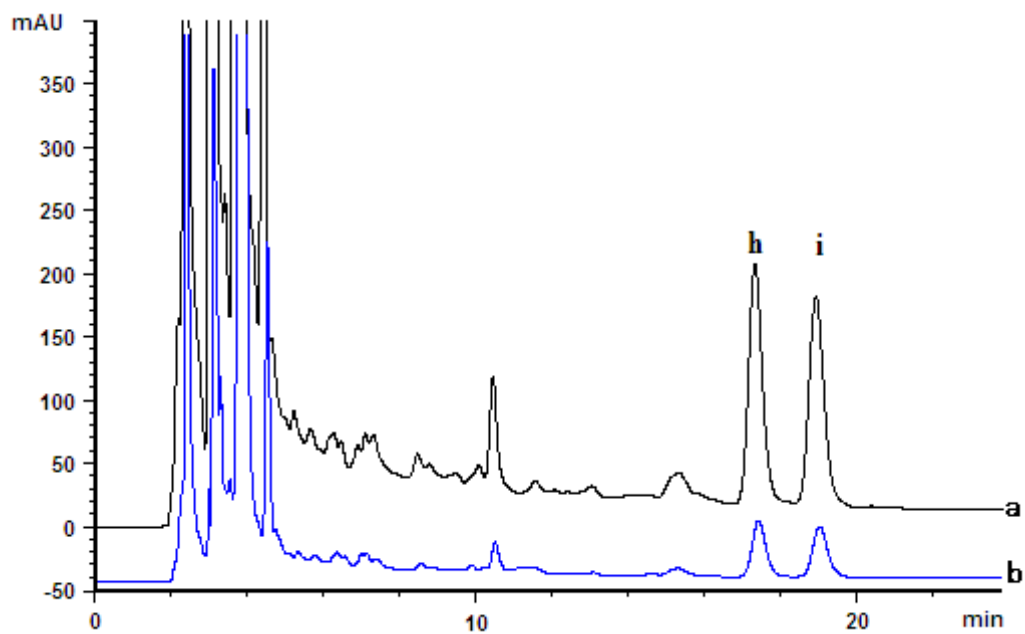


Fig.S4 Chromatogram of the extract of Apocynum: a solution before pre-concentration;  
b solution after pre-concentration. Peak h: hyperin; i: isoquercitrin.

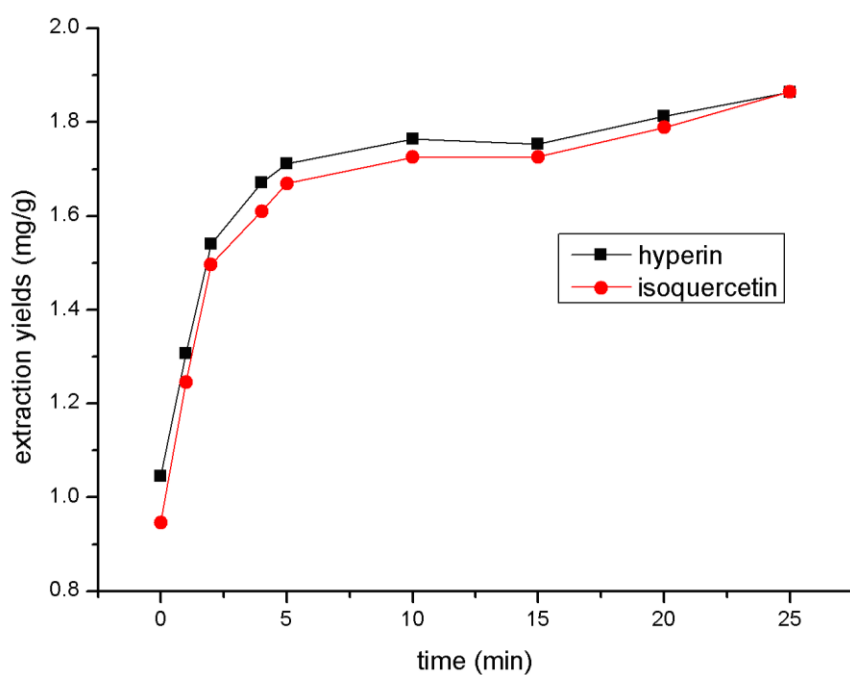


Fig. S5 Kinetic curves of hyperin and isoquercitrin extracted from Apocynum.

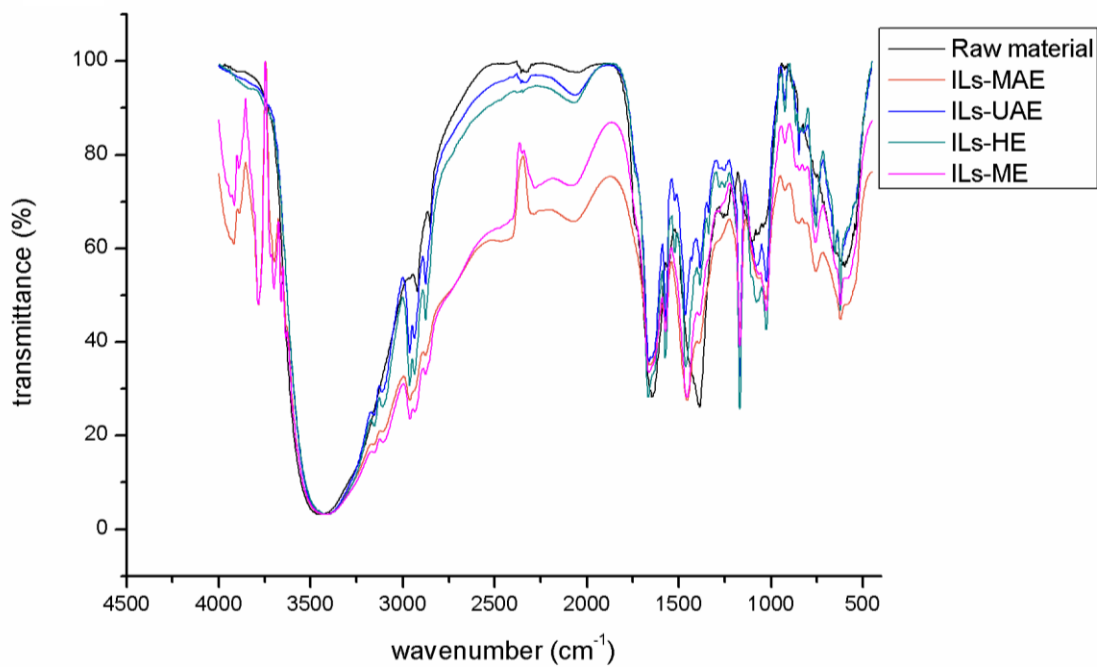


Fig. S6 FT-IR spectra of Apocynum before and after different extraction techniques.

**Table S**

**(A)  $^1\text{H}$ -NMR spectra of the investigated ILs (seen in Fig. S1)**

$^1\text{H}$ NMR ( $\delta$ , $\times 10^{-6}$ ) <sup>a</sup>	ILs		
	removed salt	contained salt	contained salt
	[bmim][BF <sub>4</sub> ] <sup>b</sup> (D <sub>2</sub> O)	[bmim][BF <sub>4</sub> ] <sup>b</sup> (D <sub>2</sub> O)	[omim][BF <sub>4</sub> ] <sup>b</sup> (D <sub>2</sub> O)
2-H	8.63 (1H, s)	8.65 (1H, s)	8.69 (1H, s)
4-H	7.36 (1H, s)	7.35 (1H, s)	7.39 (1H, s)
5-H	7.41 (1H, s)	7.41 (1H, s)	7.44 (1H, s)
6-H	3.83 (1H, s)	3.82 (1H, s)	3.85 (1H, s)
7-H	4.13 (1H, s)	4.12 (1H, s)	4.14 (1H, s)
8-H	1.79 (1H, s)	1.78 (1H, s)	1.81 (1H, s)
9-H	1.25 (1H, s)	1.23 (1H, s)	1.28 (1H, s)
10-H	0.86 (1H, s)	0.85 (1H, s)	1.28 (1H, s)
11-H			1.28 (1H, s)
12-H			1.28 (1H, s)
13-H			1.19 (1H, s)
14-H			0.79 (1H, s)

<sup>a</sup> Note:  $^1\text{H}$ -NMR chemical shifts are reported downfield from trimethylsilane (TMS). Multiplicities

are abbreviated as s=singlet, d=doublet, quart =quartet, t=triplet and m= multiplet.

<sup>b</sup> The four ILs were recorded on Varian-INOVA 400 NMR spectrometry.

**(B)  $^{13}\text{C}$ -NMR spectra of the investigated ILs (seen in Fig. S1)**

$^{13}\text{C}$ NMR ( $\delta$ , $\times 10^{-6}$ ) <sup>a</sup>	ILs		
	removed salt	contained salt	contained salt
	[bmim][BF <sub>4</sub> ] <sup>b</sup> (D <sub>2</sub> O)	[bmim][BF <sub>4</sub> ] <sup>b</sup> (D <sub>2</sub> O)	[omim][BF <sub>4</sub> ] <sup>b</sup> (D <sub>2</sub> O)
2-H	128.95	128.95	128.94
4-H	115.27	115.27	115.31
5-H	116.53	116.53	116.59
6-H	28.629	28.697	28.75
7-H	42.36	42.39	42.71
8-H	24.39	24.36	22.358
9-H	11.853	11.868	18.47
10-H	5.71	5.743	21.39
11-H			21.19
12-H			24.17
13-H			15.17
14-H			6.58

<sup>a</sup> Note:  $^{13}\text{C}$ -NMR chemical shifts are reported downfield from trimethylsilane (TMS).

<sup>b</sup> The four ILs were recorded on Varian-INOVA 400 NMR spectrometry.