

## Supplementary Information

### Study on the Mixed-Mode HPLC Separation of Shuang-Huang-Lian and Xue-Bi-Jing Injections Based on an Ionic Liquid Column

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**Table S1.** Chromatography data of higher polarity group under HILIC condition. ACN-aqueous phosphoric acid (0.1%) (87:13)

Solute	Retention time / min	Theoretical plate / ( $N\ m^{-1}$ )	Tailing factor	Resolution
Gallic acid	5.12	12630	1.27	1.71
Uridine	8.14	4221	0.84	4.05
Guanosine	17.00	6580	0.85	–

**Table S2.** Chromatography data of higher polarity group under RPLC condition. ACN-aqueous phosphoric acid (0.1%) (2:98)

Solute	Retention time / min	Theoretical plate / ( $N\ m^{-1}$ )	Tailing factor	Resolution
Guanosine	2.25	1207	1.75	2.11
Uridine	2.66	7241	1.28	0.61
Gallic acid	2.83	693	1.23	–

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**Table S3.** Chromatography data of medium polarity group under HILIC condition. ACN-aqueous phosphoric acid (0.1%) (25:75)

Solute	Retention time / min	Theoretical plate / ( $N m^{-1}$ )	Tailing factor	Resolution
Oxypaeoniflorin	2.94	2313	1.21	2.27
Ferulic acid	3.67	3233	1.03	1.99
Salvianic acid A sodium	5.41	4784	1.29	7.78

**Table S4.** Chromatography data of medium polarity group under RPLC condition. ACN-aqueous phosphoric acid (0.1%) (90:10)

Solute	Retention time / min	Theoretical plate / ( $N m^{-1}$ )	Tailing factor	Resolution
Oxypaeoniflorin	2.62	986	1.58	1.03
Salvianic acid A sodium	2.94	1979	1.38	2.31
Ferulic acid	4.16	–	–	–

**Table S5.** Chromatography data of lower polarity group under HILIC condition. ACN-aqueous phosphoric acid (0.1%) (70:30)

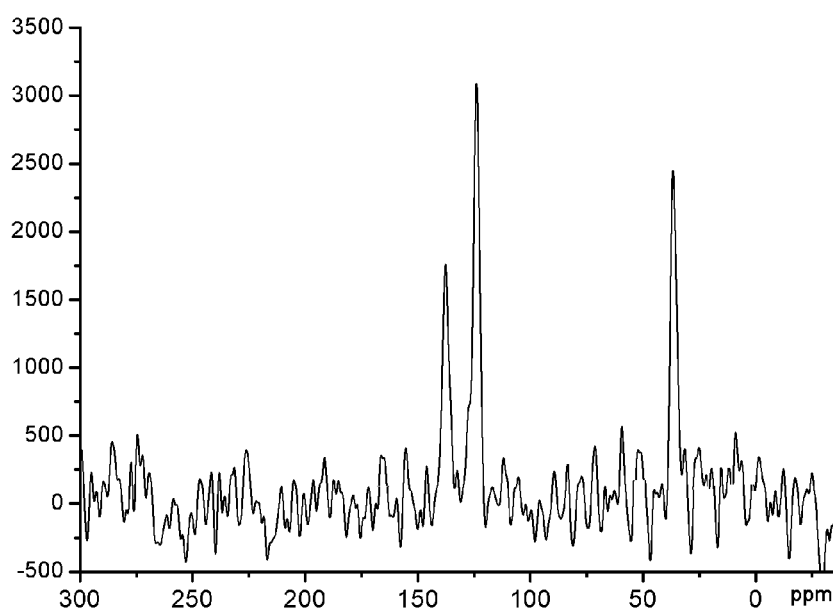
Solute	Retention time / min	Theoretical plate / ( $N m^{-1}$ )	Tailing factor	Resolution
Salvianolic acid B	4.20	3976	1.11	1.67
Safflor yellow A	11.41	4632	3.22	2.54

**Table S6.** Chromatography data of lower polarity group under RPLC condition. ACN-aqueous phosphoric acid (0.1%) (30:70)

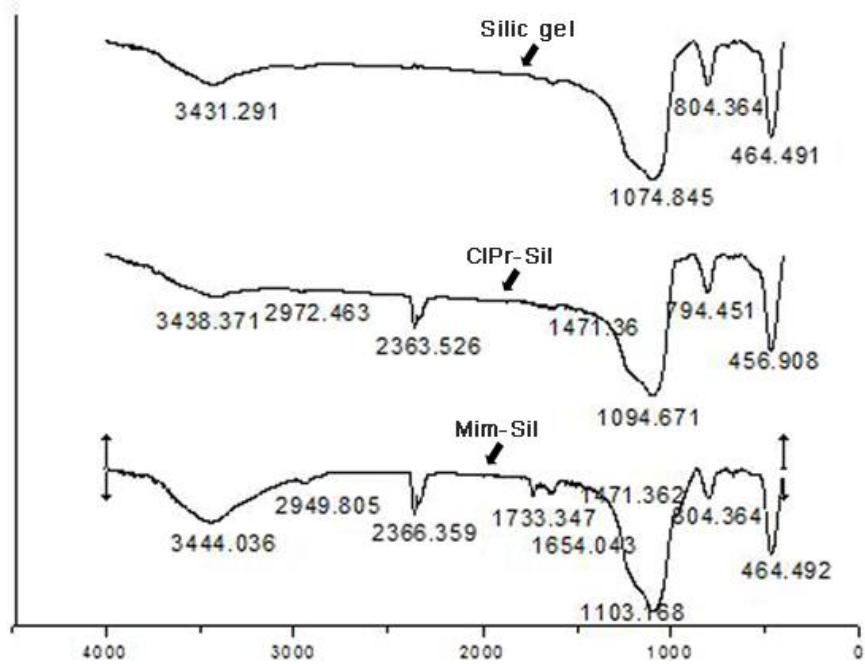
Solute	Retention time / min	Theoretical plate / ( $N\ m^{-1}$ )	Tailing factor	Resolution
Salvianolic acid B	5.19	2446	0.90	1.17
Safflor yellow A	5.57	3099	1.17	0.54

**Table S7.** Chromatography data of compounds **1-8** in XBJ under optimized conditions

Solute	Retention time / min	Theoretical plate / ( $N\ m^{-1}$ )	Tailing factor	Resolution
Gallic acid	19.06	19533	0.99	4.49
Uridine	21.58	29746	0.96	6.08
Oxypaeoniflorin	25.80	23858	0.87	4.14
Ferulic acid	31.35	38657	1.09	7.99
Salvianic acid A sodium	40.72	56752	0.97	6.37
Guanosine	49.45	325416	1.07	2.53
Salvianolic acid B	50.47	207128	0.88	2.82
Safflor yellow A	55.37	171479	0.74	—



**Figure S1.** Solid-state  $^{13}C$  NMR spectrum for Mim-Sil.



**Figure S2.** Infrared spectra for ClPr-Sil and Mim-Sil.