

Optimization of Ionic liquid based dispersive liquid–liquid microextraction combined with dispersive micro-solid phase extraction for the spectrofluorimetric determination of sulfasalazine in aqueous samples by response surface methodology

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Note added after first publication: This Supplementary Information file replaces that originally published on 2nd December 2016, and contains corrected Figures 1S and 2S.

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Figure captions

Fig. 1S. Effect of each factor on the extraction efficiency: (A) sonication time; (B) absorbent dosage; (C) volume of IL; (D) pH

Fig. 2S. Two-factor interactions and their effects on the efficiency: (A) volume of IL- sonication time; (B) pH-absorbent dosage; (C) pH-sonication time; (D) pH-volume of IL; (E) sonication time-absorbent dosage.

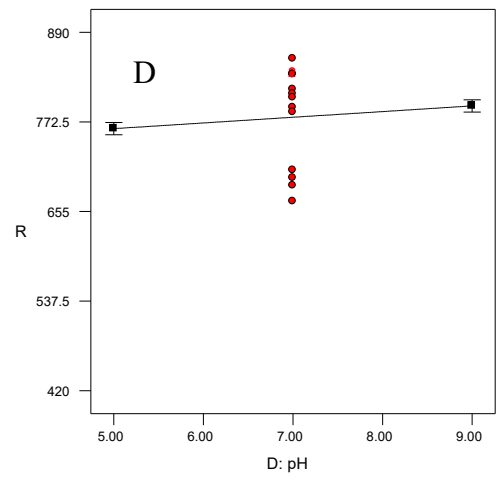
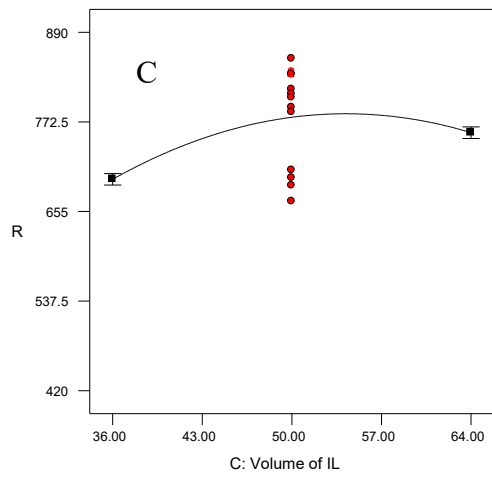
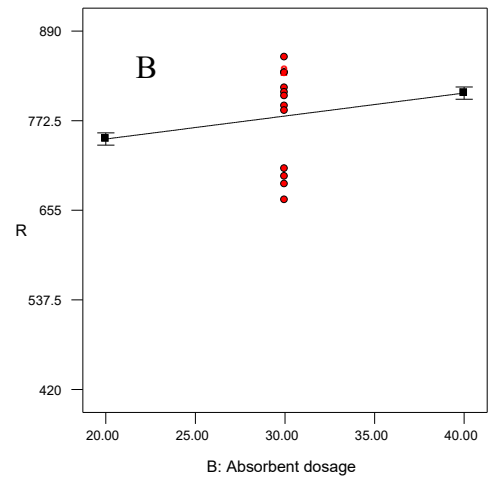
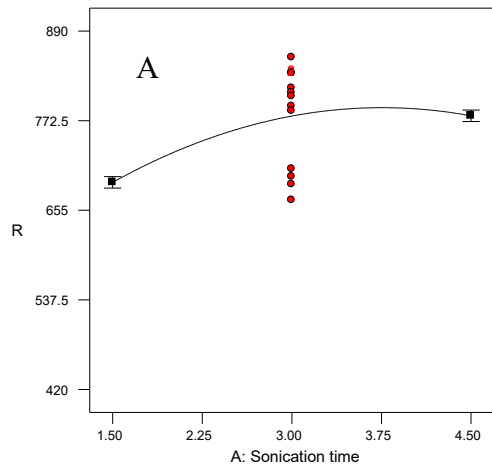


Figure 1S

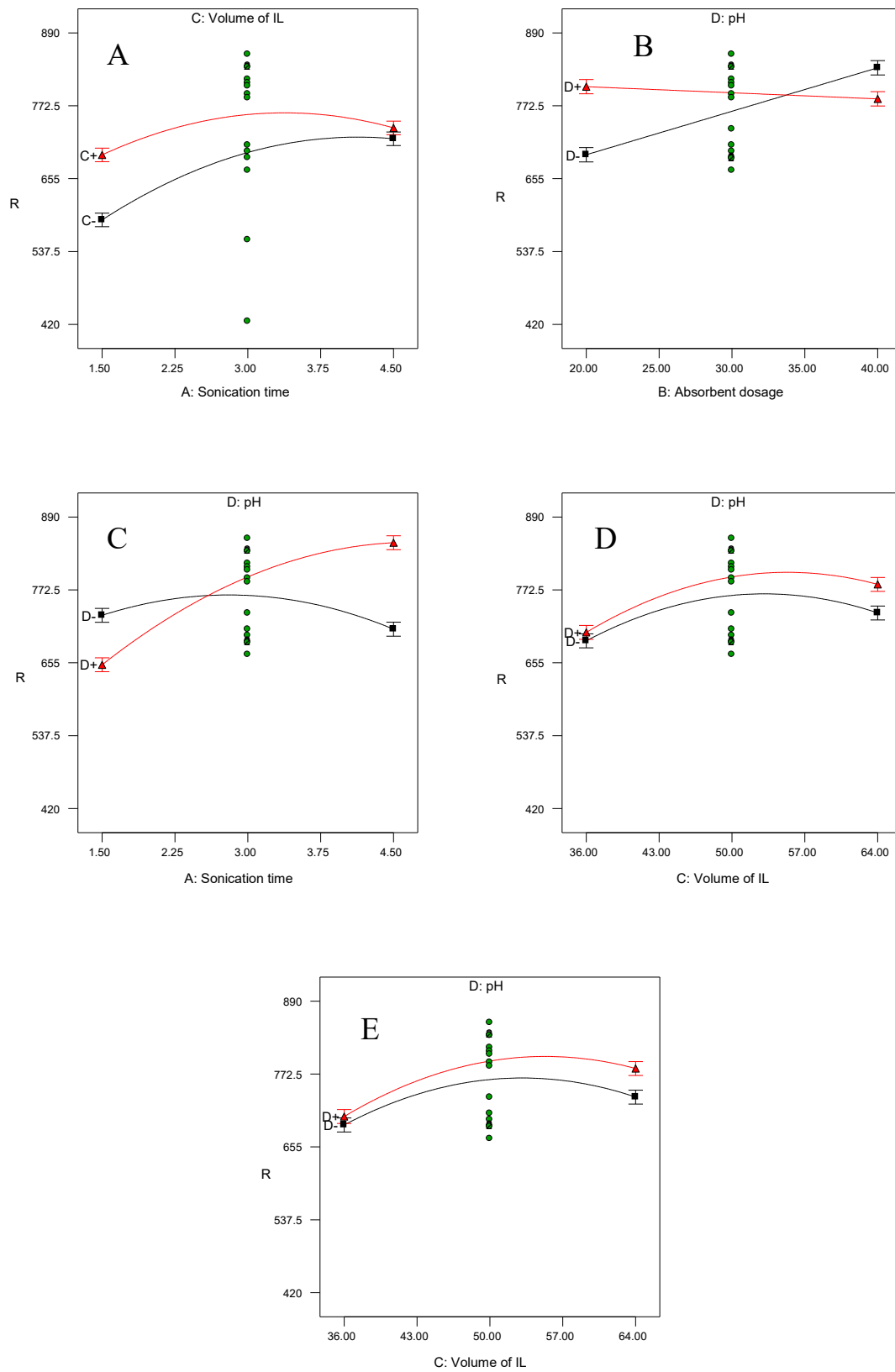


Figure 2S

Table 1S.Design matrix and responses for the fractional factorial design.

Run	Block	A	B	C	D	E	R ^a
1	1	0	0	0	0	0	368.5
2	1	1	-1	-1	1	1	728.0
3	1	-1	1	-1	-1	1	314.5
4	1	0	0	0	0	0	310.5
5	1	1	1	-1	1	-1	529.8
6	1	-1	-1	1	1	-1	1189.1
7	1	0	0	0	0	0	254.2
8	1	-1	1	1	1	1	1328.3
9	1	1	-1	1	-1	1	1119.1
10	1	1	1	1	-1	-1	1159.5
11	1	-1	-1	-1	-1	-1	257.5
12	2	0	0	0	0	0	369.6
13	2	1	-1	1	1	-1	1207.8
14	2	-1	-1	1	-1	1	722.0
15	2	1	-1	-1	-1	-1	252.3
16	2	0	0	0	0	0	280.1
17	2	1	1	-1	-1	1	444.2
18	2	-1	1	1	-1	-1	1000.0
19	2	-1	-1	-1	1	1	434.0
20	2	0	0	0	0	0	319.2
21	2	-1	1	-1	1	-1	532.5
22	2	1	1	1	1	1	1457.0

^a $\Delta I = I_0 - I_F$ difference in fluorescence intensities of the blank and sample solutions.

Table 2S. Design matrix and responses for the central composite design.

Run	Block	A	B	C	D	R ^a
1	1	1	1	1	-1	817.9
2	1	-1	-1	1	-1	733.2
3	1	-1	1	-1	-1	718.4
4	1	0	0	0	0	791.3
5	1	1	-1	-1	-1	587.4
6	1	-1	1	1	1	665.7
7	1	0	0	0	0	814.9
8	1	1	-1	1	1	830.9
9	1	0	0	0	0	855.3
10	1	-1	-1	-1	1	618.4
11	1	0	0	0	0	835.1
12	1	1	1	-1	1	854.5
13	2	-1	1	1	-1	786.2
14	2	1	1	-1	-1	811.2
15	2	0	0	0	0	785.1
16	2	1	-1	1	-1	590.1
17	2	-1	1	-1	1	542.3
18	2	-1	-1	1	1	744.1
19	2	1	-1	-1	1	808.2
20	2	0	0	0	0	808.9
21	2	1	1	1	1	883.2
22	2	0	0	0	0	804.2
23	2	-1	-1	-1	-1	639.5
24	2	0	0	0	0	834.6
25	2	0	0	0	2	734.7
26	3	0	0	2	0	556.2
27	3	0	0	0	0	668.2
28	3	0	0	0	0	698.8
29	3	-2	0	0	0	442.4
30	3	0	0	0	0	708.9
31	3	2	0	0	0	598.3
32	3	0	0	0	0	688.8
33	3	0	0	-2	0	424.7
34	3	0	0	0	-2	687.4
35	3	0	-2	0	0	651.4
36	3	0	2	0	0	749.2

^a $\Delta I = I_0 - I_F$ difference in fluorescence intensities of the blank and sample solutions.