

Hydrolysis of trichosanthin (TCS) catalyzed by imidazolium-based ionic liquids in heating and microwave

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Table S1

Analysis of variance for two models of Eqs.(5) and (6).

Mode	Source	Sum of squares	F	Mean square	F-Vaule	p-Vaule Prob>F
Heating hydrolysis	Model	243.59	9	26.38	29.76	<0.0001
	X ₁	4.96	1	4.96	5.60	0.0499
	X ₂	66.13	1	66.13	74.60	<0.0001
	X ₃	150.51	1	150.51	169.81	<0.0001
	X ₁ X ₂	0.42	1	0.42	0.48	0.5122
	X ₁ X ₃	0.04	1	0.04	0.05	0.8378
	X ₂ X ₃	8.12	1	8.12	9.16	0.0192
	X ₁ ²	2.03	1	2.29	0.17	-
	X ₂ ²	0.46	1	0.52	0.50	-
	X ₃ ²	4.60	1	5.19	0.06	-
	Residual	6.20	7	0.89	-	-
	Lack of Fit	5.99	3	2.00	37.69	0.0022
	Pure Error	0.21	4	0.053	-	-
Cor Total	243.59	16	-	-	-	
Microwave-assisted hydrolysis	Model	946.39	9	105.15	27.49	0.0001
	X ₁	62.16	1	62.16	16.25	0.0050
	X ₂	706.88	1	706.88	184.81	<0.0001
	X ₃	15.96	1	15.96	4.17	0.0804
	X ₁ X ₂	0.81	1	0.81	0.21	0.6593
	X ₁ X ₃	11.90	1	11.90	3.11	0.1211
	X ₂ X ₃	1.96	1	1.96	0.51	0.4973
	X ₁ ²	0.65	1	0.65	0.17	0.6928
	X ₂ ²	108.12	1	108.12	28.27	0.0011
	X ₃ ²	29.40	1	29.40	7.69	0.0276
	Residual	26.77	7	3.82	-	-
	Lack of Fit	13.40	3	4.47	1.34	0.0005
	Pure Error	13.37	4	3.34	-	-
Cor Total	973.16	16	-	-	-	

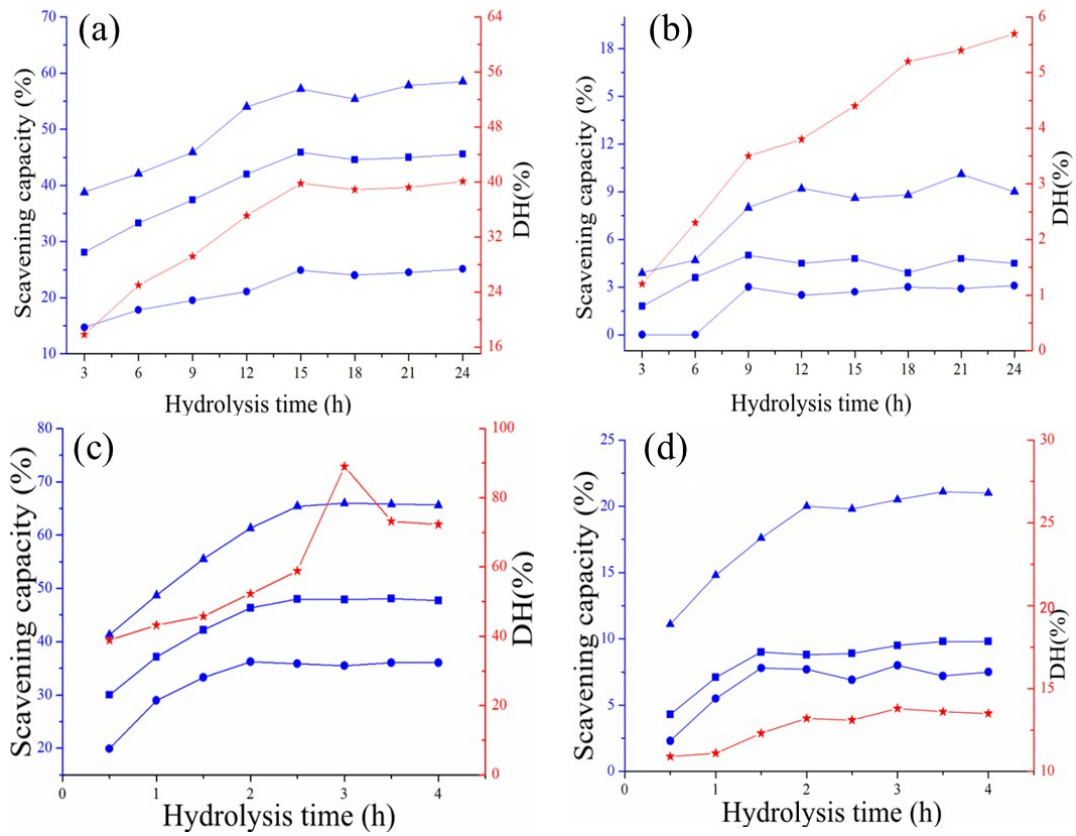


Fig. S1 The relationship between hydrolysis degree and antioxidant activity of TCS (a: heating hydrolysis, c: microwave hydrolysis) and PS (b: heating hydrolysis, d: microwave hydrolysis), ■ : DPPH activity, ● : ABTS activity, ▲ : Fenton activity, ★ :DH.