

Table S1 Experimental design by Box-Behnken and the results* of the experiments (Solvent: water)

Run	Independent variables			Dependent variables		
	X ₁ (min)	X ₂ (1/X)	X ₃ (W)	TPC (mg GAE/L)	TAC _{CUPRAC} (mmol TE/L)	TAC _{DPPH} (mgDPPH/L)
1	5 (-1)	20 (-1)	400 (0)	2094.1±1.28	22.3±0.19	128.3±0.19
2	15 (1)	20 (-1)	400 (0)	2154.1±2.57	11.8±0.16	136.1±2.76
3	5 (-1)	40 (1)	400 (0)	651.1±1.85	4.4±0.40	32.5±0.49
4	15 (1)	40 (1)	400 (0)	986.7±3.85	8.8±0.24	60.3±2.76
5	5 (-1)	30 (0)	200 (-1)	1258.5±1.28	12.3±0.38	81.4±2.61
6	15 (1)	30 (0)	200 (-1)	1154.1±3.40	10.8±0.29	68.5±1.52
7	5 (-1)	30 (0)	600 (1)	985.9±2.57	9.8±0.24	53.8±2.33
8	15 (1)	30 (0)	400 (0)	1115.6±5.88	10.9±0.43	79.3±2.71
9	10 (0)	20 (-1)	200 (-1)	1356.3±4.63	13.9±0.68	81.3±1.16
10	10 (0)	40 (1)	200 (-1)	868.2±3.40	8.2±0.35	52.6±2.33
11	10 (0)	20 (-1)	600 (1)	1423.0±3.40	14.1±0.58	95.0±2.78
12	10 (0)	40 (1)	600 (1)	808.9±2.22	7.8±0.32	47.7±2.68
13	10 (0)	30 (0)	400 (0)	868.9±5.88	9.9±0.53	66.7±1.13
14	10 (0)	30 (0)	400 (0)	1024.4±2.22	11.3±0.34	67.0±0.67
15	10 (0)	30 (0)	400 (0)	1064.4±2.22	9.5±0.55	63.0±0.49
16	10 (0)	30 (0)	400 (0)	1112.6±6.79	8.3±0.24	66.3±0.37
17	10 (0)	30 (0)	400 (0)	1119.3±3.40	10.3±0.15	59.8±0.67

*The results were given as the mean of three replicates with the standard deviations.