



Figure S1. Response surfaces at the central point levels for WS, UWS and SWS biosorbents: (a), (d), (g) effects of CV concentration (A) and pH (B) on removal efficiency (R); (b), (e), (h) effects of CV concentration (A) and biosorbent dose (C) on removal efficiency (R); (c), (f), (i) effect of pH (B) and biosorbent dose (C) on removal efficiency (R).

Table S1. Experimental data of adsorption experiments

							light abs. at 590 nm*				residual CV concentr, mg/L			
N°	A	B	C	initial CV conc., mg/L	pH	sorbent dose, g/L	WS	UWS	SWS	SUWS	WS	UWS	SWS	SUWS
1	-1	-1	-1	35	4	2.5	0.50	1.01	0.83	1.18	2.38	4.79	3.94	5.62
2	1	-1	-1	85	4	2.5	2.77	2.12	1.83	1.45	15.86	10.02	8.65	6.87
3	-1	1	-1	35	8	2.5	0.82	1.77	0.45	0.63	3.91	8.39	2.15	3.03
4	1	1	-1	85	8	2.5	2.64	2.14	1.51	1.45	14.22	10.12	7.17	6.84
5	-1	-1	1	35	4	7.5	0.10	0.15	0.12	0.09	0.49	0.77	0.62	0.46
6	1	-1	1	85	4	7.5	0.73	1.07	0.62	0.74	3.47	5.08	2.98	3.51
7	-1	1	1	35	8	7.5	0.10	0.07	0.10	0.09	0.51	0.38	0.53	0.47
8	1	1	1	85	8	7.5	0.38	0.88	0.27	0.23	1.83	4.19	1.32	1.13
9	-1.68	0	0	17.95	6	5	0.07	0.06	0.07	0.05	0.38	0.33	0.39	0.27
10	1.68	0	0	102.05	6	5	2.16	0.46	1.34	0.70	10.18	2.22	6.36	3.36
11	0	-1.68	0	60	2.64	5	2.48	2.14	1.42	1.45	11.70	10.09	6.71	6.88
12	0	1.68	0	60	9.36	5	0.50	0.91	0.97	1.10	2.38	4.33	4.60	5.21
13	0	0	-1.68	60	6	0.80	2.79	2.14	1.83	1.45	16.12	10.12	8.66	6.88
14	0	0	1.68	60	6	9.21	0.22	0.22	0.24	0.13	1.07	1.08	1.18	0.68
15	0	0	0	60	6	5	0.61	0.72	0.27	0.23	2.94	3.44	1.30	1.12
16	0	0	0	60	6	5	0.61	0.72	0.27	0.23	2.94	3.44	1.30	1.12
17	0	0	0	60	6	5	0.61	0.72	0.27	0.23	2.94	3.44	1.30	1.12
18	0	0	0	60	6	5	0.61	0.72	0.27	0.23	2.94	3.44	1.30	1.12
19	0	0	0	60	6	5	0.61	0.72	0.27	0.23	2.94	3.44	1.30	1.12
20	0	0	0	60	6	5	0.61	0.72	0.27	0.23	2.94	3.44	1.30	1.12