

Supplementary Table 1. Effects of biosorbent dose, contact time, and agitation speed

trt	rep	dose(gm)	Agitation speed (rpm)	contact time(Hr.)
A1	1	1	160	2
A1	2	1	160	2
B1	1	1	160	2
B1	2	1	160	2
C1	1	1	160	2
C1	2	1	160	2
A2	1	2	160	2
A2	2	2	160	2
B2	1	2	160	2
B2	2	2	160	2
C2	1	2	160	2
C2	2	2	160	2
A3	1	3	160	2
A3	2	3	160	2
B3	1	3	160	2
B3	2	3	160	2
C3	1	3	160	2
C3	2	3	160	2
A4	1	4	160	2
A4	2	4	160	2
B4	1	4	160	2
B4	2	4	160	2
C4	1	4	160	2
C4	2	4	160	2
A21	1	2	160	1
A21	2	2	160	1
B21	1	2	160	1
B21	2	2	160	1
C21	1	2	160	1
C21	2	2	160	1
A22	1	2	160	2
A22	2	2	160	2
B22	1	2	160	2
B22	2	2	160	2
C22	1	2	160	2
C22	2	2	160	2
A23	1	2	160	3
A23	2	2	160	3
B23	1	2	160	3
B23	2	2	160	3
C23	1	2	160	3
C23	2	2	160	3
A24	1	2	160	4
A24	2	2	160	4
B24	1	2	160	4
B24	2	2	160	4
C24	1	2	160	4
C24	2	2	160	4

A160	1	2	160	2
A160	2	2	160	2
B160	1	2	160	2
B160	2	2	160	2
C160	1	2	160	2
C160	2	2	160	2
A200	1	2	200	2
A200	2	2	200	2
B200	1	2	200	2
B200	2	2	200	2
C200	1	2	200	2
C200	2	2	200	2
A80	1	2	80	2
A80	2	2	80	2
B80	1	2	80	2
B80	2	2	80	2
C80	1	2	80	2
C80	2	2	80	2
A120	1	2	120	2
A120	2	2	120	2
B120	1	2	120	2
B120	2	2	120	2
C120	1	2	120	2
C120	2	2	120	2

initial con of Total Cr(mg/L)	after bio sorption	percentage removal
12	8.67	27.75
12.5	8.8	29.6
12	9.5	20.83333333
12.5	9.7	22.4
12	4	66.66666667
12.5	3.9	68.8
12	6.67	44.41666667
12.5	6.8	45.6
12	6.83	43.08333333
12.5	6.9	44.8
12	1.17	90.25
12.5	1.3	89.6
12	3.83	68.08333333
12.5	3.9	68.8
12	4.17	65.25
12.5	4.3	65.6
12	1.67	86.08333333
12.5	1.8	85.6
12	1	91.66666667
12.5	1.2	90.4
12	4.83	59.75
12.5	4.91	60.72
12	2	83.33333333
12.5	2.1	83.2
12	7.33	38.91666667
12.5	7.6	39.2
12	7.17	40.25
12.5	7.3	41.6
12	0.67	94.41666667
12.5	0.7	94.4
12	6.67	44.41666667
12.5	6.8	45.6
12	6.83	43.08333333
12.5	6.9	44.8
12	1.17	90.25
12.5	1.32	89.44
12	5.33	55.58333333
12.5	5.35	57.2
12	5.67	52.75
12.5	5.78	53.76
12	2.33	80.58333333
12.5	2.42	80.64
12	5.67	52.75
12.5	5.8	53.6
12	6.17	48.58333333
12.5	6.4	48.8
12	1.83	84.75
12.5	1.9	84.8

12.5	6.5	48
12	6.67	44.41666667
12.5	6.8	45.6
12	6.83	43.08333333
12.5	6.9	44.8
12	6.87	42.75
12.5	1.3	89.6
12	1.29	89.25
12.5	5.91	52.72
12	5.5	54.16666667
12.5	5.8	53.6
12	5.77	51.91666667
12.5	3.9	68.8
12	4	66.66666667
12	9.67	19.41666667
12.5	9.9	20.8
12	6.67	44.41666667
12.5	6.8	45.6
12	4.83	59.75
12.5	4.95	60.4
12	7.5	37.5
12.5	8	36
12	6.33	47.25
12.5	6.5	48

