Supplementary Information

Selective removal of hexavalent chromium from wastewater by rice husk: Kinetic, isotherm and spectroscopic investigation

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Table S1: Effect of solution pH on Cr adsorption by rice husk.

pH	**Cr adsorbed (%)**
3.12	73.78± 0.51
4.24	76.01± 0.28
5.19	78.60± 0.43
6.14	76.87± 0.40
7.32	74.8± 0.09
8.13	72.68± 0.37
9.19	72.35± 0.26
10.11	73.43± 0.68

Table S2: Effect of contact time on Cr adsorption by rice husk.

Contact time	**Cr adsorbed (mg/g)**	**Cr adsorbed (%)**
0.016	188.67± 0.65	91.59± 0.98
0.05	190.05± 0.22	92.26± 0.55
0.083	187.33± 0.25	90.94± 0.23
0.16	190.03± 0.36	92.25± 0.65
0.42	192.16± 0.26	93.28± 0.25
0.83	192.84± 0.12	93.61± 0.33
1	192.82± 0.22	93.60± 0.25
2	193.42± 0.24	93.89± 0.32
3	193.42± 0.36	93.89± 0.44
5	193.55± 0.33	93.92± 0.32
8	193.55± 0.25	93.92± 0.22
12	193.51± 0.36	93.93± 0.36
18	193.51± 0.32	93.94± 0.5
24	193.60± 0.45	93.92± 0.36

Table S3: Effect of initial Cr concentration on Cr adsorption by rice husk.

Initial concentration (mg L^{-1}	**Equilibrium concentration (mg L^{-1})**	**Cr adsorbed (mg g^{-1})**
10	5.42	24.31± 2.3
30	5.62	91.99± 0.4
50	4.271	163.54± 1.5
70	7.33	228.86± 0.1
90	7.06	301.20± 1.4
100	20.8	313.60± 17.7
120	40.8	351.92± 17.3
140	80.7	355.42± 17.6
160	113.7	371.34± 20.8
180	145.8	373.07± 14.6
200	186.4	373.80± 12.3
220	225.4	377.34± 15.0
240	264.2	381.25± 12.0
250	285.6	379.63± 16.0

Table S4: Effect of sorbent dose on Cr adsorption by rice husk.

Sorbent dose (g)	**Cr adsorbed (mg g^{-1})**
0.1	60.07± 0.24
0.3	64.28± 1.12
0.6	69.18± 1.10
0.9	65.75± 0.55
1	59.20± 1
1.3	55.65± 0.5