

Fabrication of silica/calcium alginate nanocomposite based on rice husk ash for efficient adsorption of phenol from water

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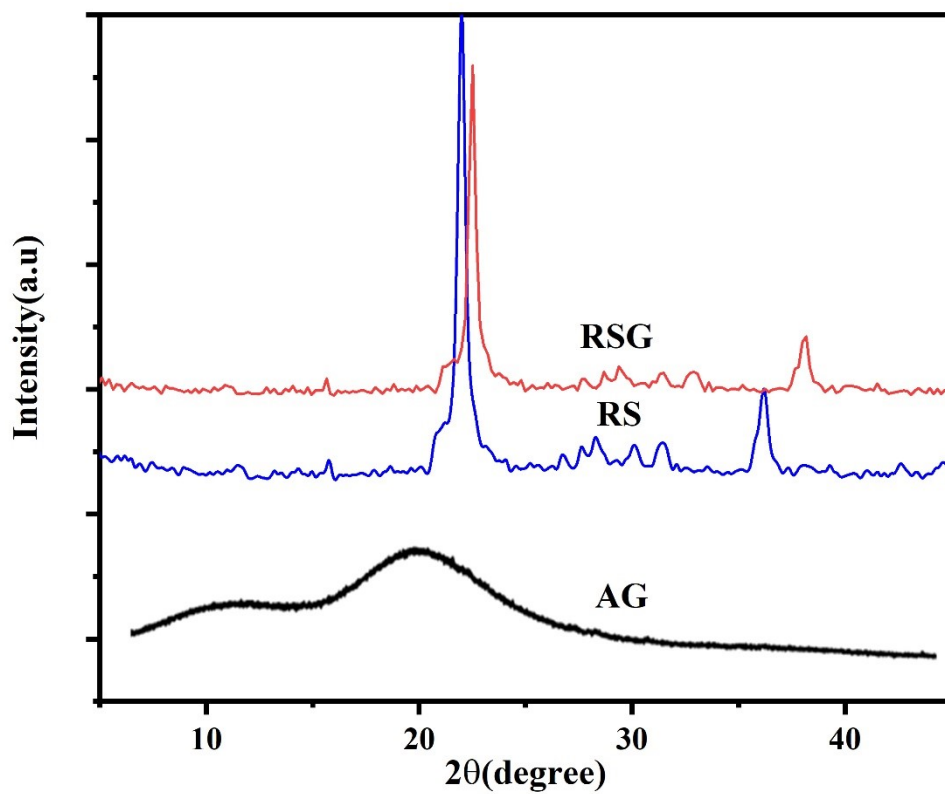
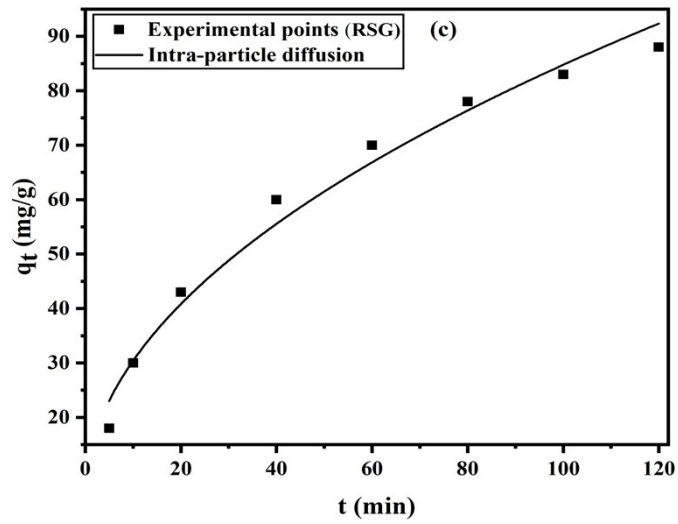
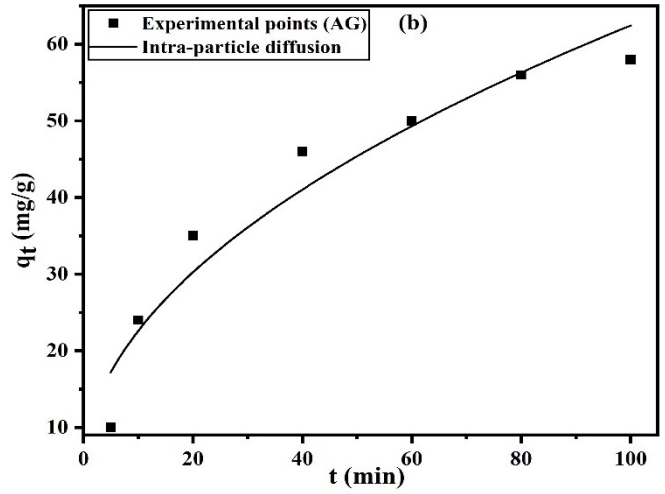
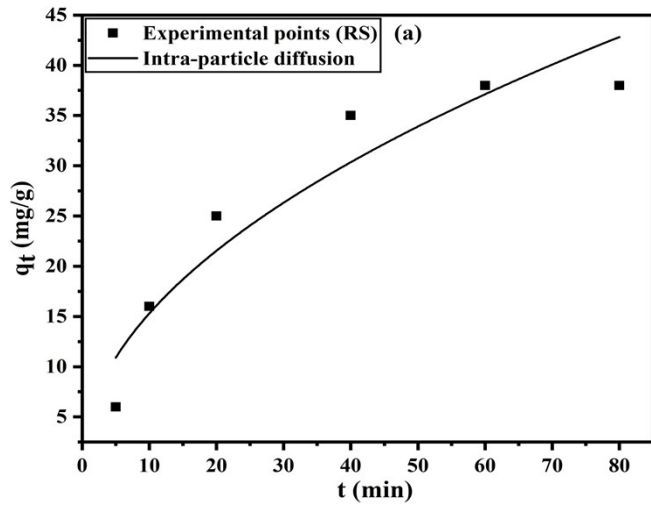


Fig. S1: XRD patterns of RS, AG, and RSG



T(°C)	% of RH	T(°C)	% of RS	T(°C)	% of AG	T(°C)	% of RSC
20.0	100.00	20.0	100.00	22.0	100.00	22.0	100.00
30.2	100.00	30.0	100.00	30.0	100.00	30.0	100.00
40.7	100.00	35.0	100.00	40.0	99.90	40.0	99.91
55.0	99.80	40.0	100.00	45.0	99.80	45.0	99.82
60.9	99.80	55.0	100.00	50.0	99.60	50.0	99.61
70.3	99.60	76.0	99.60	60.0	99.40	60.0	99.43
86.0	99.20	99.9	99.10	80.0	99.20	76.9	97.81
98.3	99.00	121.0	99.10	100.0	97.00	95.4	95.44
100.0	98.10	128.0	98.80	113.0	96.00	115.5	94.33
123.6	95.00	147.0	98.50	139.0	93.00	135.6	91.91
138.5	94.00	165.0	97.80	162.0	90.00	162.0	90.00
150.4	93.50	189.0	97.50	184.0	87.00	177.4	87.61
170.3	93.00	213.0	97.00	215.0	84.00	197.6	85.05

Fig.S

2: Nonlinear Weber-Morris model plot for phenol adsorption onto RS, AG, and RSG at 20 °C.

Table S1: TGA data for the investigated solid samples indicating the residual mass % for 0.05 g of samples against temperature up to 800 °C.

180.1	91.00	230.0	96.50	242.0	80.00	217.7	83.08
188.3	91.00	249.0	96.30	254.0	78.00	236.2	80.53
200.2	90.00	273.0	95.70	276.0	75.00	251.2	77.98
222.0	88.80	294.0	95.70	296.0	71.00	269.6	75.62
240.3	87.80	313.0	95.60	307.3	69.63	288.2	73.27
258.0	86.00	334.0	95.50	315.0	68.00	309.8	71.11
270.3	84.60	357.0	95.50	333.0	66.00	320.3	70.29
288.0	81.00	378.0	95.00	360.0	62.20	331.6	69.13
300.7	78.00	394.5	94.70	375.0	60.80	354.9	67.76
312.0	75.00	416.0	94.70	387.0	59.00	365.3	67.39
318.9	73.00	434.0	94.70	406.0	57.00	378.5	66.39
331.0	69.00	463.0	94.60	418.0	56.00	403.6	65.02
343.7	65.80	484.0	94.50	434.0	54.80	423.7	63.84
354.0	62.70	505.0	94.20	455.0	52.00	438.7	62.85
373.4	56.40	524.0	94.10	474.0	50.60	468.5	62.17
386.0	52.00	549.0	94.10	485.6	49.37	457.1	62.06
397.1	48.50	562.6	94.10	504.0	47.60	477.2	61.10
412.0	45.00	576.0	94.10	495.5	48.68	497.4	60.51
433.5	42.00	588.1	94.07	512.2	46.34	517.5	59.32
455.0	40.00	603.0	94.00	524.0	45.00	529.9	59.21
483.4	37.50	615.1	94.00	540.0	43.00	542.7	58.93
512.0	34.50	627.0	94.00	556.0	41.50	552.8	58.67
536.5	32.09	651.0	94.00	571.0	39.80	567.7	58.14
558.0	31.70	663.4	94.00	590.0	38.00	592.8	58.10
588.0	29.06	673.0	94.00	598.2	36.37	590.0	58.10
615.5	27.50	691.0	94.00	606.1	35.48	617.0	57.98
644.0	26.09	701.9	93.99	617.0	34.00	643.0	57.90
670.0	25.60	715.0	93.80	643.0	33.80	668.2	57.87
693.0	24.08	728.1	93.80	675.0	33.70	675.0	57.80
732.3	23.60	740.0	93.80	702.0	33.58	702.0	57.50
766.0	23.20	749.3	93.80	724.8	33.46	721.6	57.47
790.0	22.61	760.0	93.80	753.0	33.00	753.0	57.12
795.2	22.70	780.0	93.80	764.0	33.00	764.0	57.00
800.0	22.00	800.0	93.80	800.0	33.00	800.0	57.00