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Title	Removal of phenol in aqueous solution by adsorption onto green synthesized coinage nanoparticles beads
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Table 1

The isotherms parameters and correlation coefficients of Freundlich and Langmuir models

Adsorbate	Adsorbent	Freundlich constants			Langmuir constants			
		K_F (mg/g)	n	R^2	Q_o (mg/g)	b (L/mg)	R^2	R_L
Phenol	AgNPs	2.55±0.78	1.34	0.99	2.15±0.87	0.06	0.99	0.77
Phenol	AuNPs	6.54±0.67	1.60	0.98	2.25±0.68	0.22	0.99	0.48

Table 2

Adsorbents value calculated using the pseudo-first-order model for the adsorption of organic species

Adsorbate	Adsorbent	Pseudo-first-order model			Pseudo-second-order model		
		q_e (mg/g)	k_1 (hrs^{-1})	R^2	q_e (mg/g)	k_2 (g/mg/ hrs^{-1})	R^2
Phenol	AgNPs	9.87±0.65	0.051	0.99	0.22±0.65	0.62	0.99
Phenol	AuNPs	13.0±0.75	0.053	0.99	0.27±0.75	0.61	0.99

Table 3

Comparative features of some reported adsorbents

S. no.	Adsorbents	Advantage	Disadvantage	References
1	AC	High adsorption capacity and versatility	Quite expensive for recycling process	[28]
2	Low-cost adsorbent	Abundant in nature, inexpensive, require little processing, effective materials	Low cost may compensate for the associated drawbacks	[54]
3	Biosorbent	High selectivity, efficiency, cost effectiveness and good removal performance	Favourable condition	[51]
4	Nanosorbent	Stable, efficient, eco-friendly, easy to prepare and recyclable	Little expensive	Present work