Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

A low cost Y-type zeolite/carbon porous composite from coal gasification fine slag and its application in phenol remove in wastewater: Fabrication, characterization, equilibrium, and kinetic studies

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Table. S1 Proximate and ultimate analyses of CGFS

Sample	Proximate analysis (wt./%)			Ultimate analysis, d (wt./%)				
	V_d	A_d	Fc_d	C	H	O*	N	S
CGFS	6.96	80.61	12.43	16.33	0.71	0.76	0.08	1.51

Note: V_d: Volatile; A: Ash; Fc_d: Fixed carbon; d: dry basis; *by difference

Table. S2 Pore structure parameters of samples

Sample	S_{BET}(m^2/g)	$S_{t\text{-}plot}$(m^2/g)	V_{total}(cm^3/g)	V_{micro}(cm^3/g)	V_{meso}(cm^3/g)
CGFS	111.09	18.89	0.14	0.01	0.13
Y-type zeolite/carbon composite	439.68	234.45	0.35	0.12	0.23

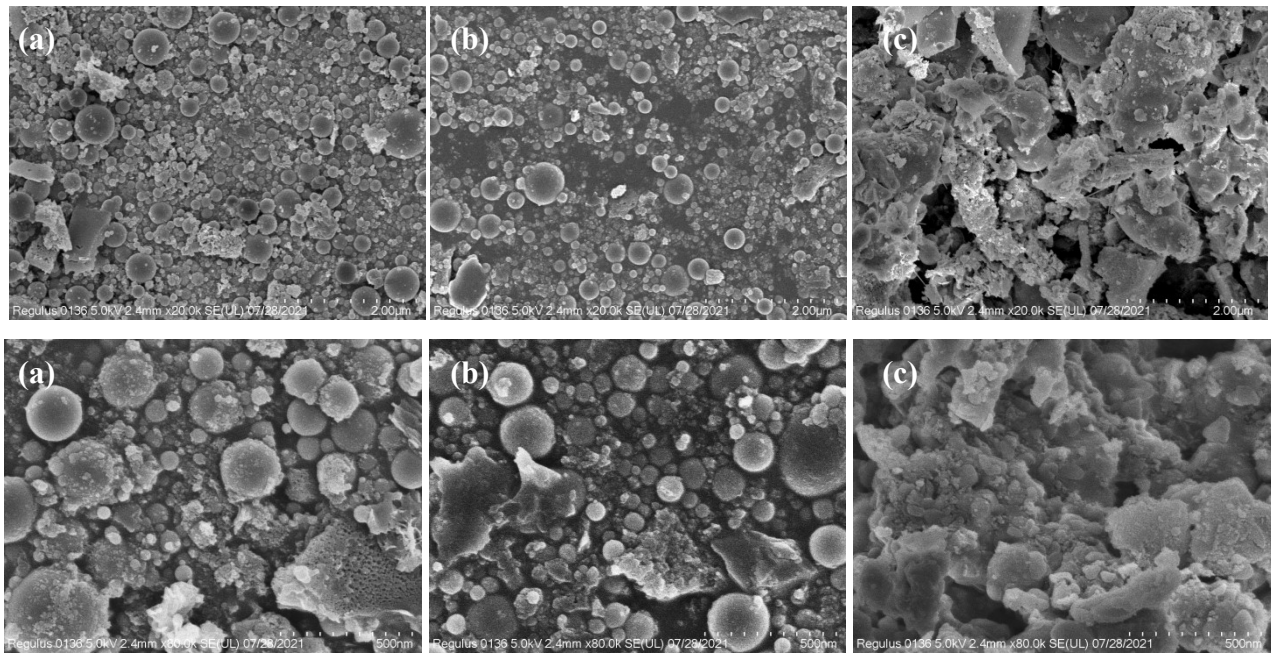

Fig. S1 SEM images of CGFS (a), HCGFS (b), HCGFS-HH (c)

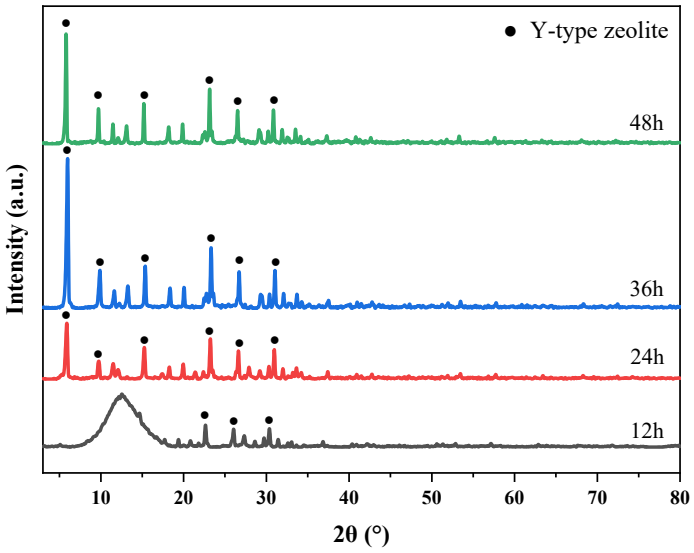

Fig. S2 XRD patterns of materials with different crystallization times

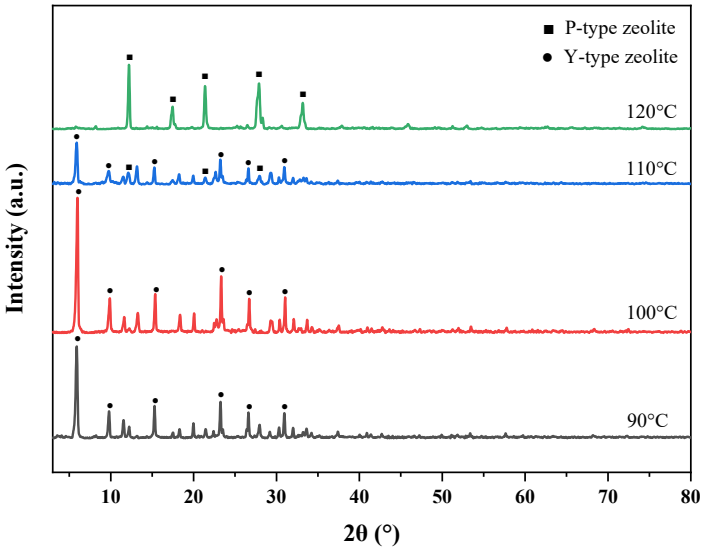

Fig. S3 XRD patterns of materials prepared at different crystallization temperatures

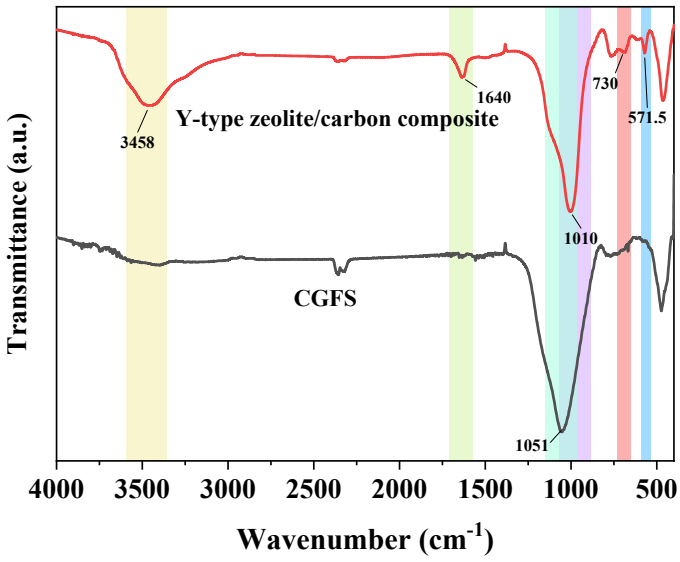

Fig. S4 FT-IR spectra of samples

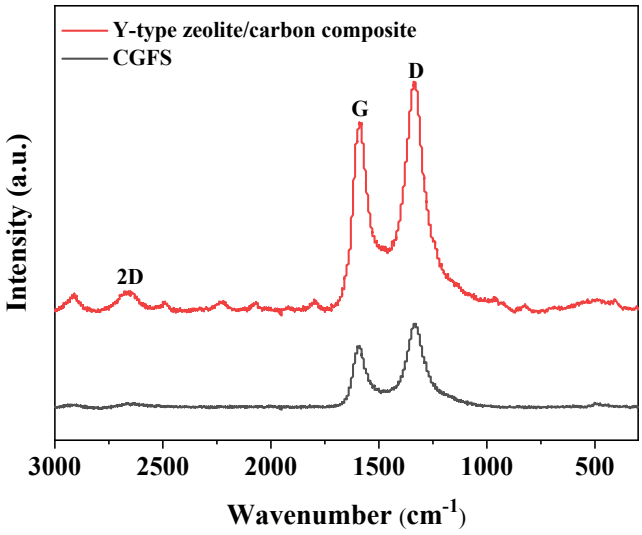

Fig. S5 Raman spectrum of the samples

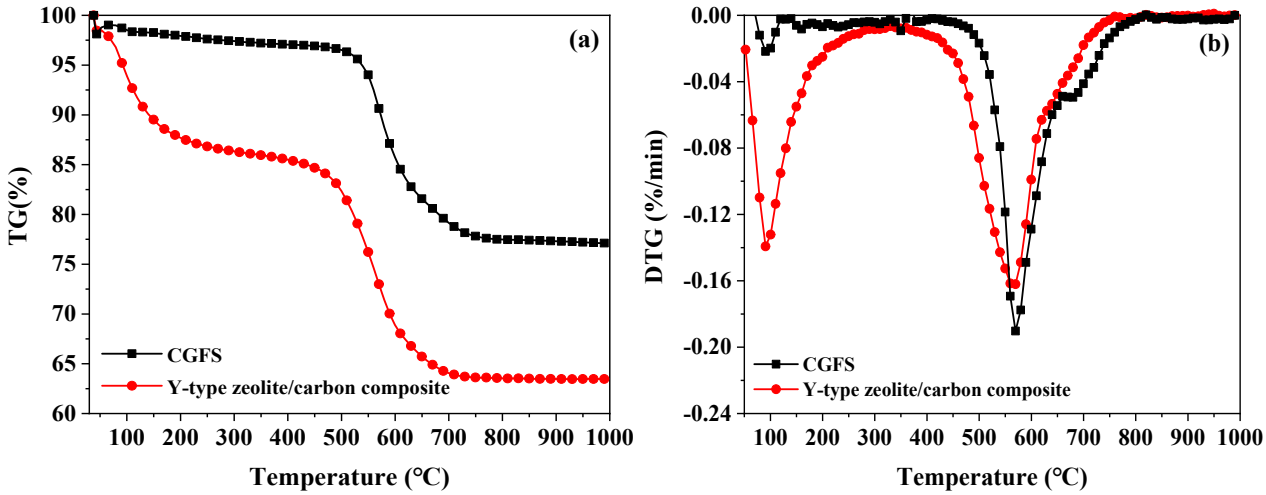

Fig. S6 TG (a) and DTG (b) curves of samples

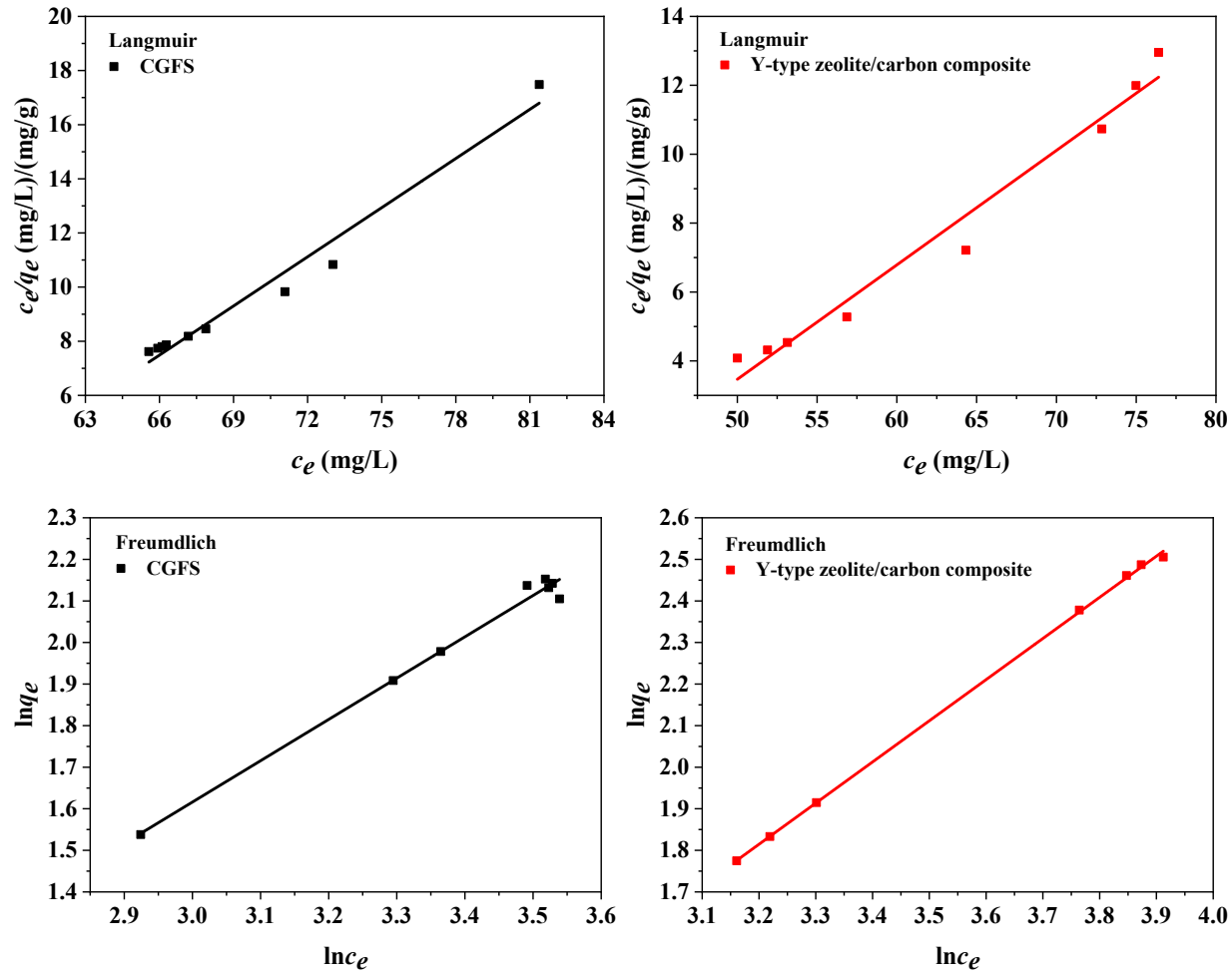

Fig. S7 Adsorption isotherms of phenol onto samples