

Supporting Information

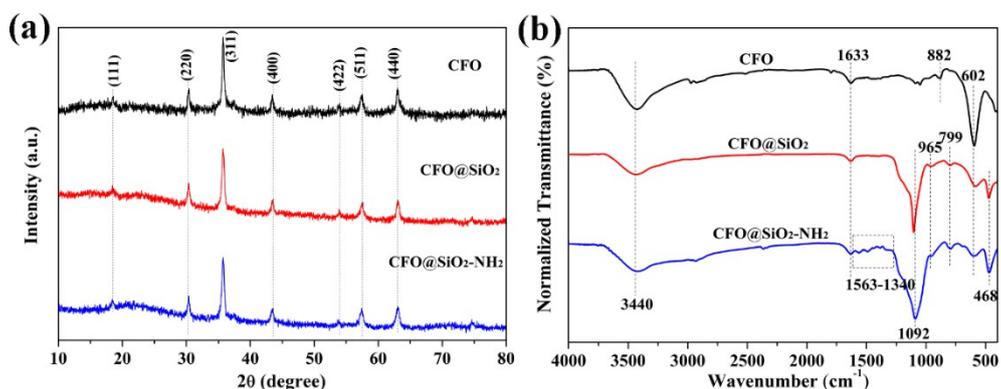


Fig. S1 (a) XRD patterns and (b) FT-IR spectra of CFO, CFO@SiO₂, CFO@SiO₂-NH₂.

Table S1 Thermodynamic parameters for the adsorption of Cu (II) on CFO@SiO₂-NH₂ magnetic adsorbent

Temperature (K)	ΔG° (kJ·mol ⁻¹)	ΔH° (kJ·mol ⁻¹)	ΔS° (kJ·mol ⁻¹)
298	-3.098		
308	-4.431		
318	-5.763	36.607	0.133
328	-7.096		

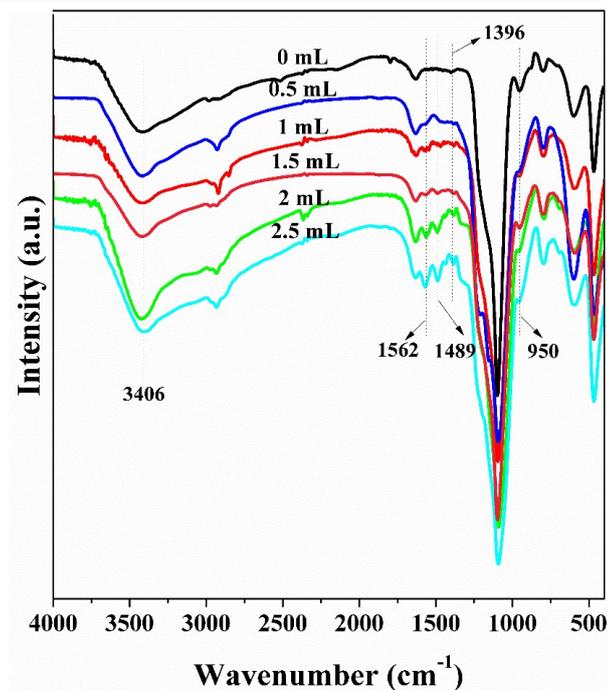


Fig. S2 FTIR spectra of CFO@SiO₂-NH₂ with different amount of APTES (0-2.5 mL).

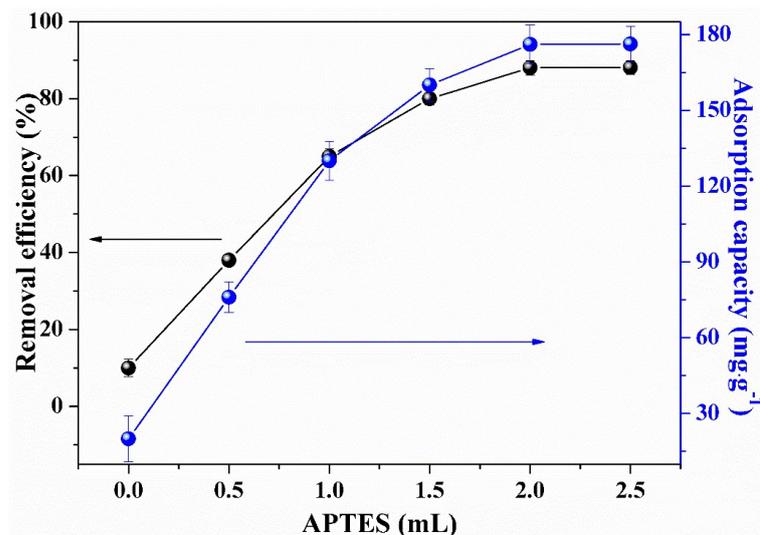


Fig. S3 The removal efficiency and adsorption capacity of Cu (II) on CFO@SiO₂-NH₂ as a function of APTES.

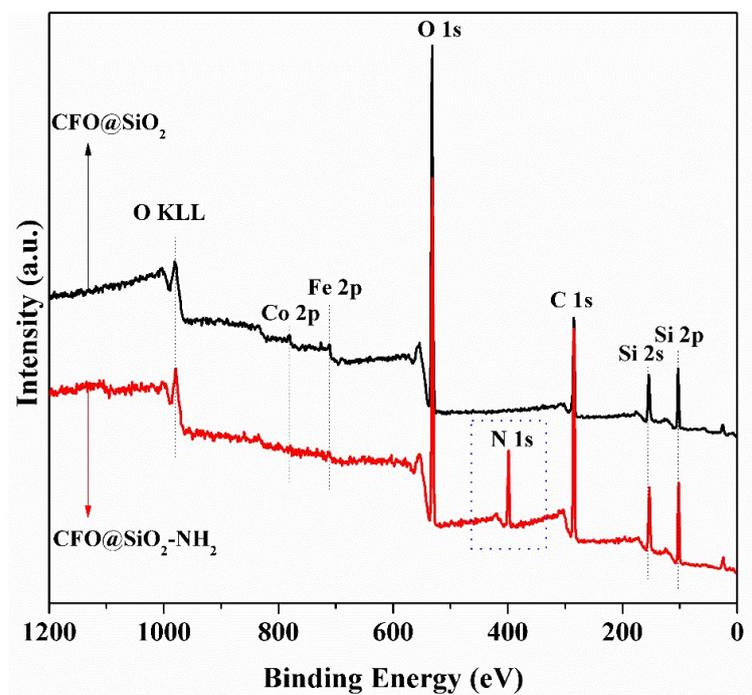


Fig. S4 Typical XPS wide scan spectra of CFO@SiO₂ before and after amino-functionalized.