

Supplementary information for
“Magnetic resin composites for the enrichment of proteins,
peptides and phosphopeptides”

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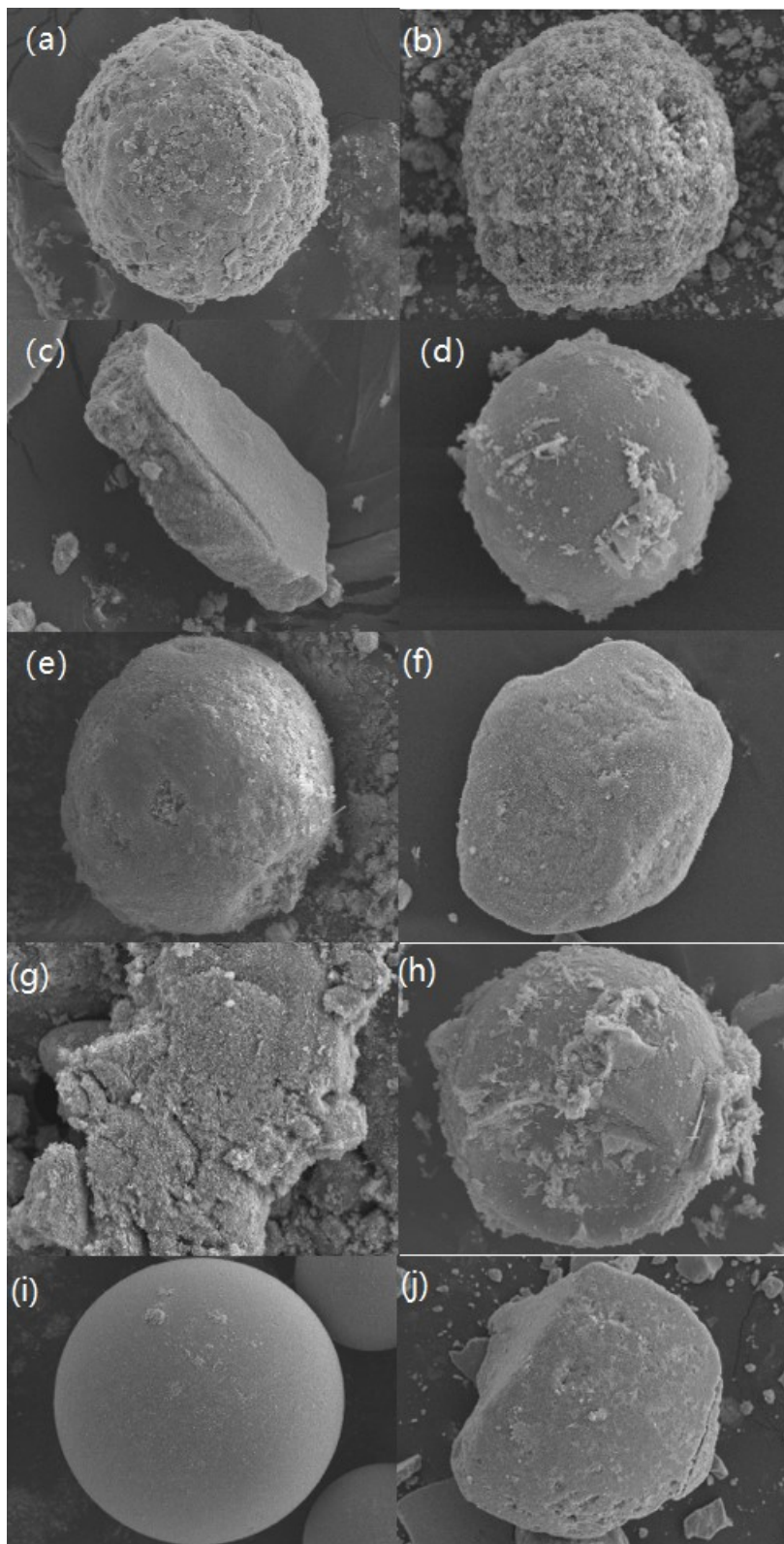


Fig. S1. SEM images of (a) A400@Fe₃O₄, (b) ES-103B@Fe₃O₄, (c) C115@Fe₃O₄, (d) XT20@Fe₃O₄, (e) ESR-3@Fe₃O₄, (f) C107@Fe₃O₄, (g) PAD428@Fe₃O₄, (h) 70MN@Fe₃O₄, (i) PDA550@Fe₃O₄, and (j) AB-8@Fe₃O₄.

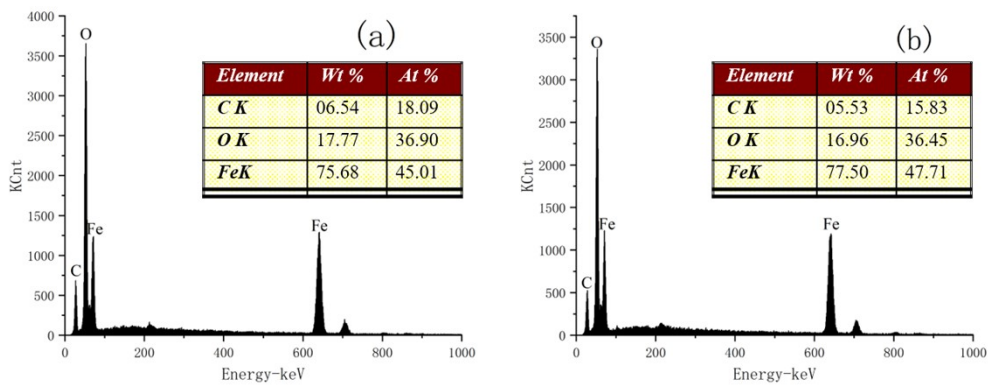


Fig. S2. EDS images of MTS9200@Fe₃O₄ and FPA90Cl@Fe₃O₄.

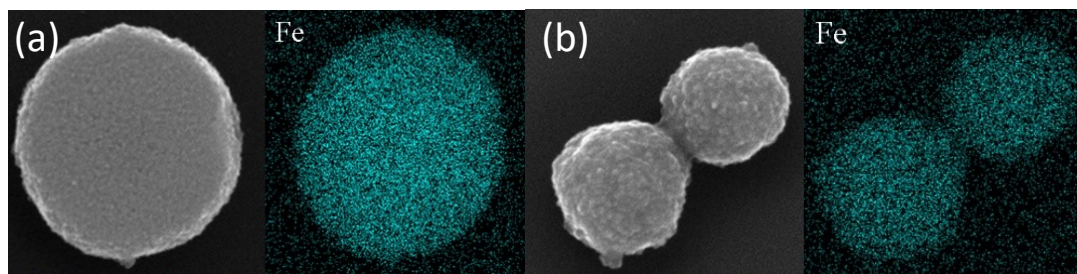


Fig. S3. EDS mapping of FPA90CL@Fe₃O₄ (a) and MTS9200@Fe₃O₄ (b).

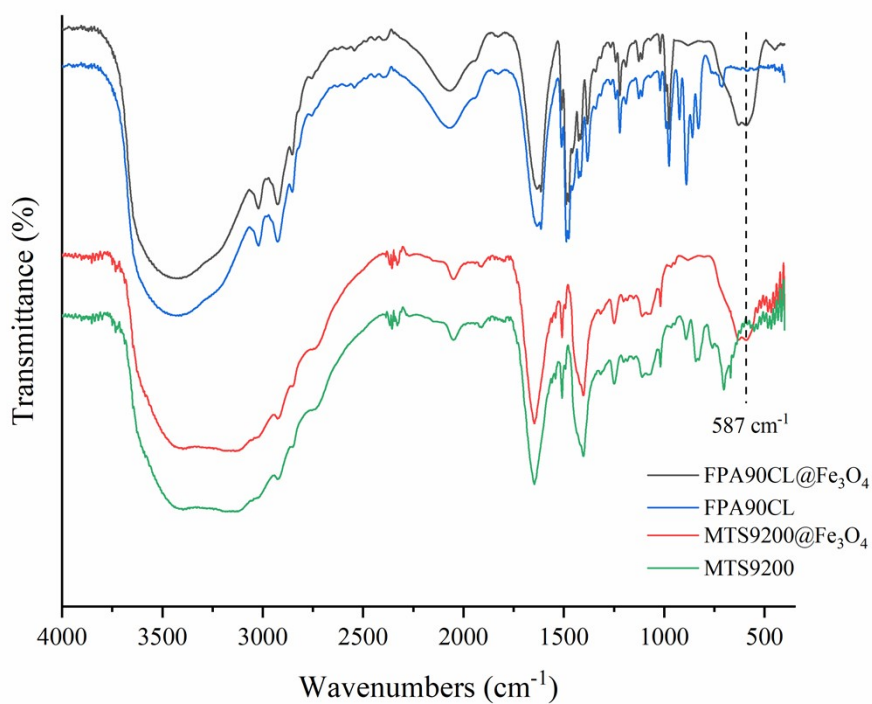


Fig. S4. FT-IR spectra of magnetic resin composites.

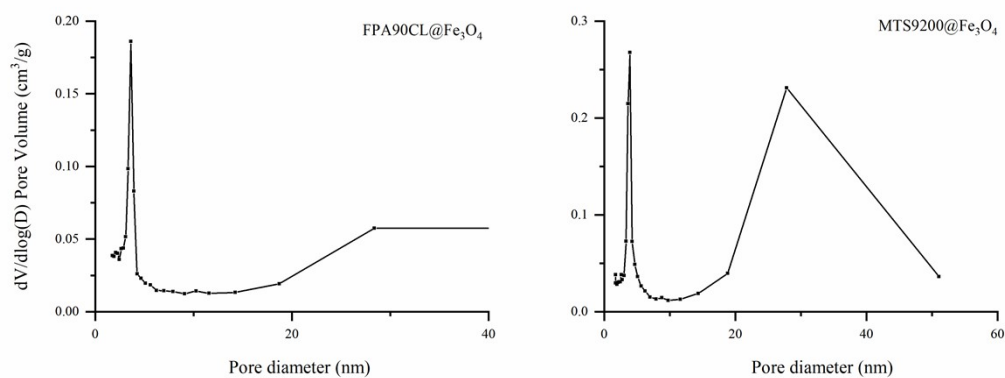


Fig. S5. Pore diameter distribution of FPA90CL@Fe₃O₄ and MTS9200@Fe₃O₄.

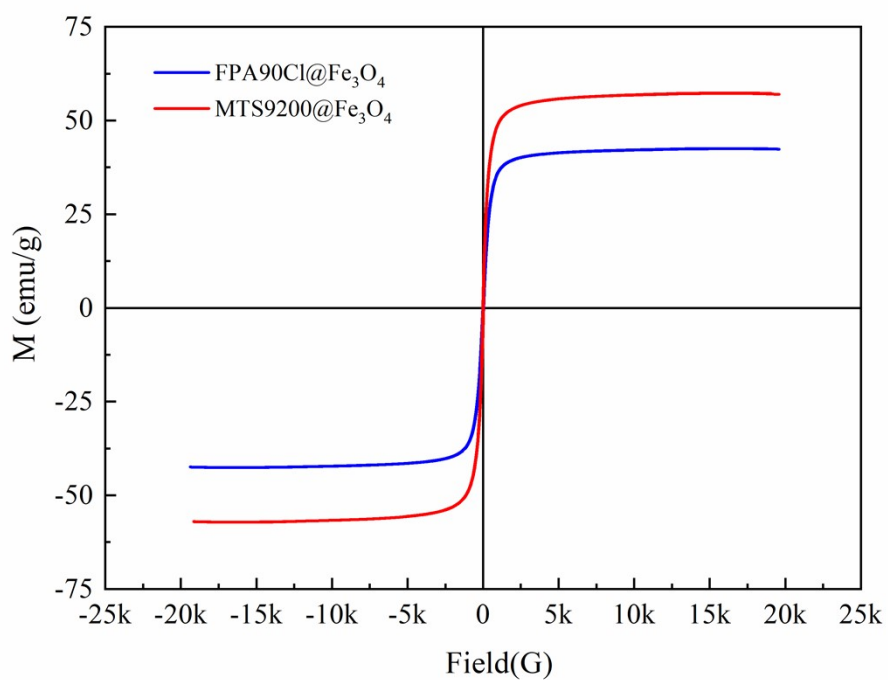


Fig.S6. VSM spectra of MTS9200@Fe₃O₄ and FPA90CL@Fe₃O₄.

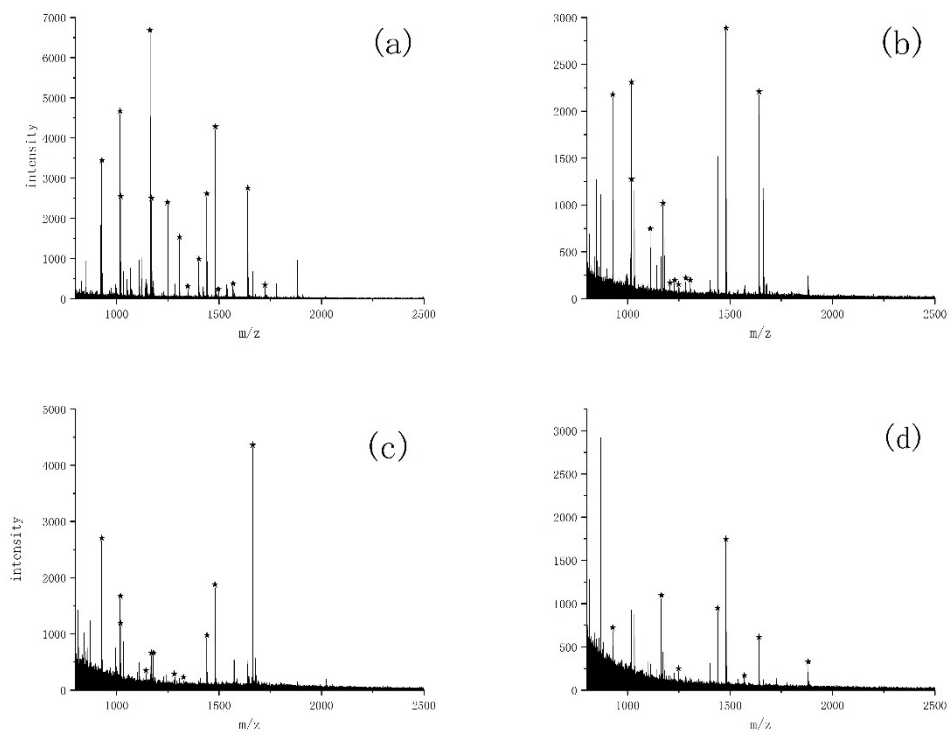


Fig. S7. MALDI-TOF mass spectra of BSA peptides after adsorption by FPA90Cl@Fe₃O₄ loading in amount of (a) 10 μL, (b) 5 μL, (c) 2 μL, and (d) 1 μL.

★ indicates BSA peptides.

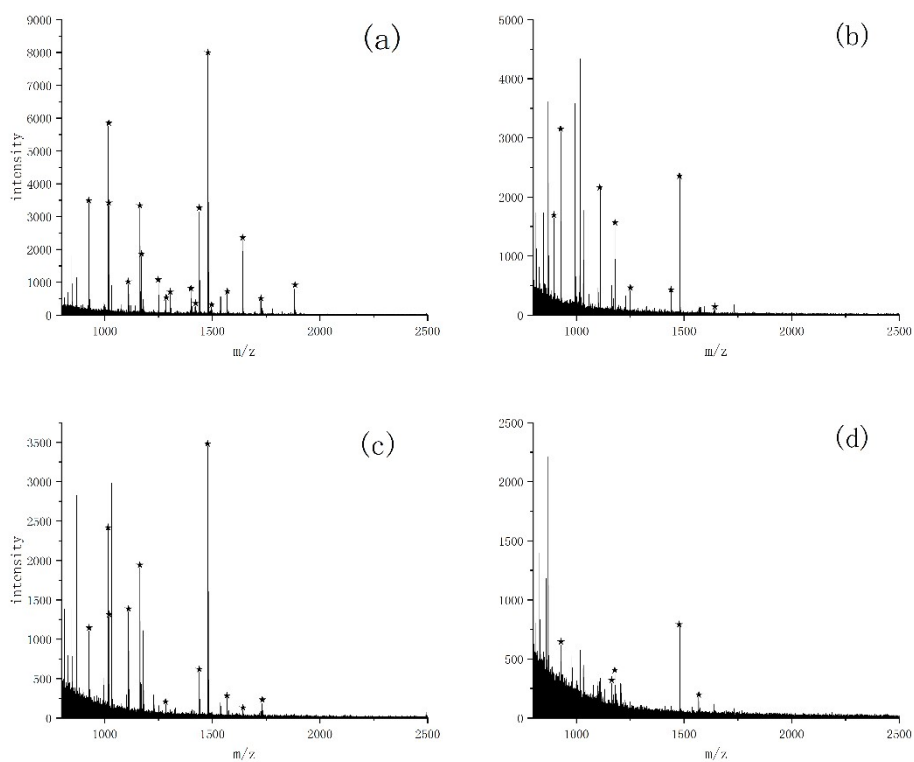


Fig. S8. MALDI-TOF mass spectra of BSA peptides after adsorption by MTS9200@Fe₃O₄ loading in amount of (a) 10 μL, (b) 5 μL, (c) 2 μL, and (d) 1 μL.

★ indicates peptides.

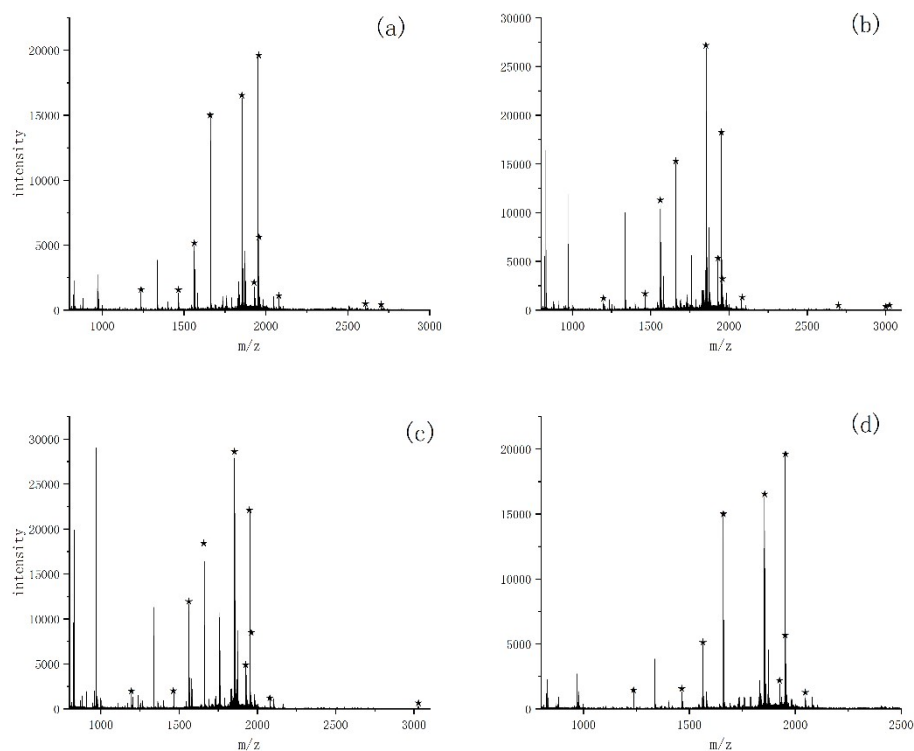


Fig. S9. MALDI-TOF mass spectra of α -casein after adsorption by FPA90Cl@Fe₃O₄ loading in amount of (a) 10 μ L, (b) 5 μ L, (c) 2 μ L, and (d) 1 μ L. ★ indicates phosphopeptides.

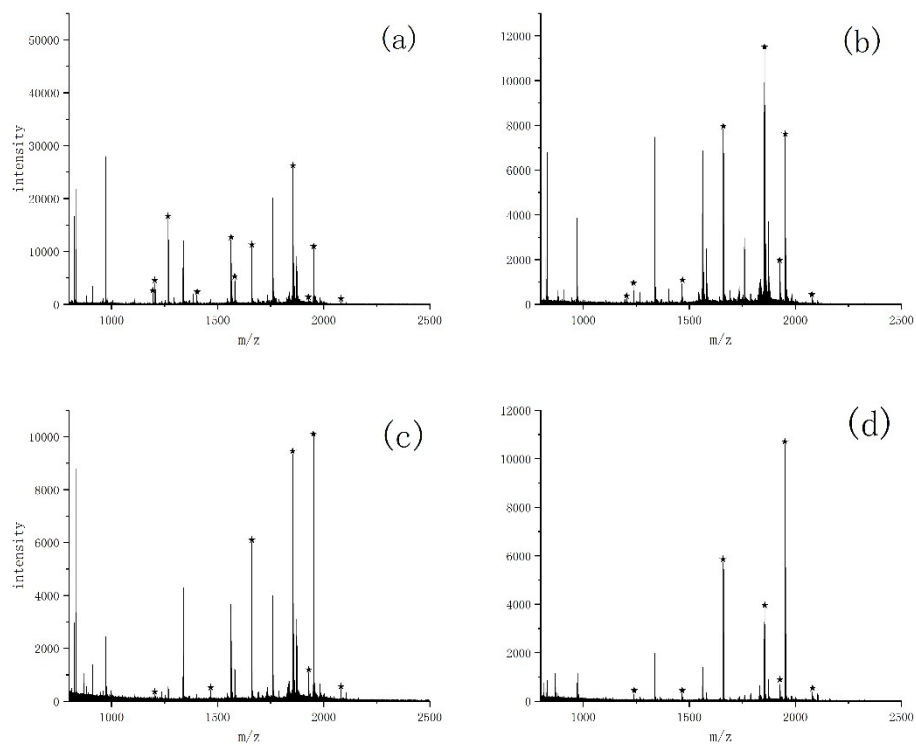


Fig. S10. MALDI-TOF mass spectra of α -casein after adsorption by MTS9200@Fe₃O₄ loading in amount of (a) 10 μ L, (b) 5 μ L, (c) 2 μ L, and (d) 1 μ L.

★ indicates phosphopeptides.

Table S1. Detailed information of 12 types of resins.

No	Type	Functional groups	Skeletal substrate	Interaction type
1	A400	Type I quaternary ammonium	Polystyrene	Strong base anion exchange
2	C115	Carboxylic acid	Polymethacrylic acid	Weak acid cation exchange
3	PAD428	None	Brominated polystyrene	Adsorption
4	C107	Carboxylic acid	Polyacrylic acid	Weak acid cation exchange
5	MTS920 0	Isothiourea	Polystyrene	Chelation
6	70MN	None	Polystyrene	Adsorption
7	FPA90C L	Quaternary amine	Polystyrene	Strong base anion exchange
8	PAD550	None	Polystyrene	Adsorption
9	AB-8	None	Polystyrene	Adsorption
10	ESR-3	None	/	Amino Resins
11	ES-103B	None	/	Epoxy resin
12	XT20	None	Polystyrene	Adsorption