

## Supplementary Information

### Development of Hierarchical Fe<sub>3</sub>O<sub>4</sub> Magnetic Microspheres as Solid Substrates for High Sensitive Immunoassays

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### Experimental results

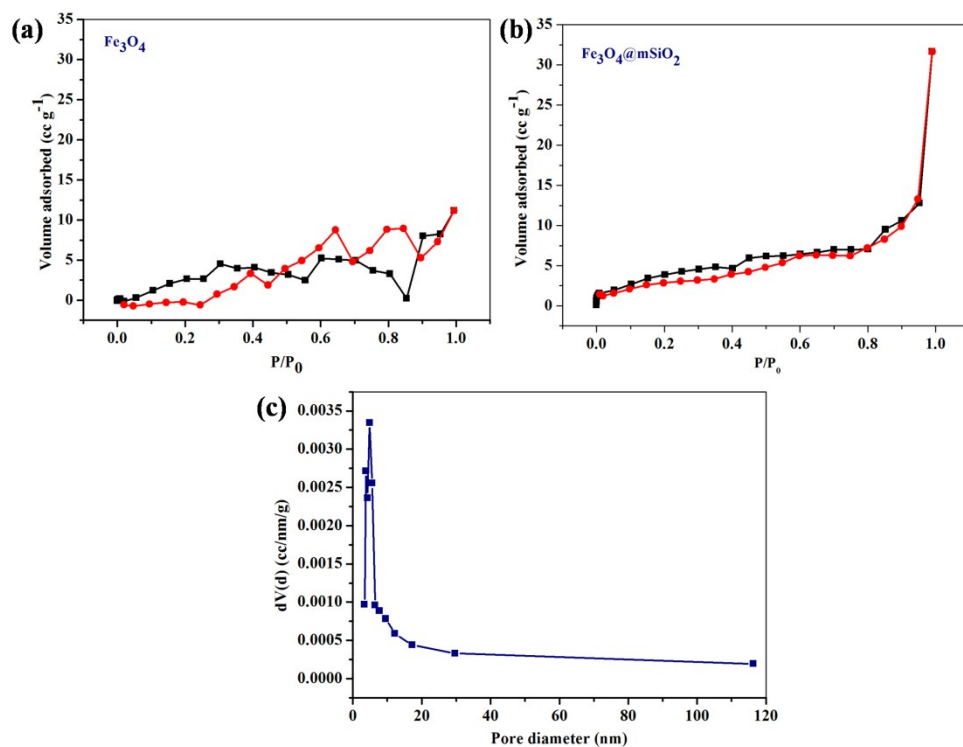


Figure S1. Nitrogen adsorption-desorption isotherms of (a)  $\text{Fe}_3\text{O}_4$  and (b)  $\text{Fe}_3\text{O}_4@\text{mSiO}_2$  microspheres; (c) Pore size distribution  $\text{Fe}_3\text{O}_4@\text{mSiO}_2$  microspheres.

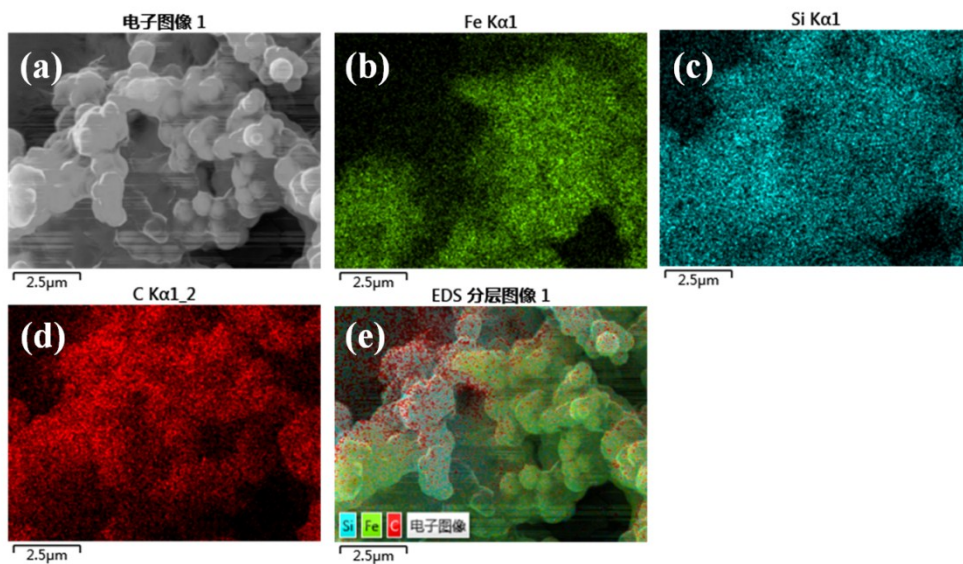


Figure S2. (a) SEM images of  $\text{Fe}_3\text{O}_4@\text{mSiO}_2@\text{p}(\text{PEGMA-co-GMA})$  microspheres; The element mapping images of (b) Fe, (c) Si and (d) C and (e) the overlay image of the three elements.