## **Supporting Information for**

## Magnetically Separable ZnFe<sub>2</sub>O<sub>4</sub>, Fe<sub>2</sub>O<sub>3</sub>/ZnFe<sub>2</sub>O<sub>4</sub> and ZnO/ZnFe<sub>2</sub>O<sub>4</sub>

## Hollow Nanospheres with Enhanced Visible Photocatalytic Property

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Figure S1. SEM and TEM images of  $ZnO/ZnFe_2O_4(a, b)$  and  $Fe_2O_3/ZnFe_2O_4(c, d)$  hollow nanospheres.



Figure S2. Nitrogen adsorption-desorption isotherms for the ZnFe<sub>2</sub>O<sub>4</sub> hollow nanospheres.

| Samples                                       | ZnFe <sub>2</sub> O <sub>4</sub> | ZnO/ZnFe <sub>2</sub> O <sub>4</sub> | Fe <sub>2</sub> O <sub>3</sub> /ZnFe <sub>2</sub> O <sub>4</sub> | bulk ZnFe <sub>2</sub> O <sub>4</sub> |
|---|----------------------------------|--------------------------------------|--|---------------------------------------|
|   | (S1)                             | (S2)                                 | (83)   | (S4)                                  |
| BET specific surface area (m <sup>2</sup> /g) | 95.8                             | 98.2                                 | 96.6   | 13.5                                  |

**Table S1.** The BET specific surface area of the samples.

Figure S2. show the nitrogen adsorption-desorption isotherms of the  $ZnO/ZnFe_2O_4$  hollow nanospheres. The Brunauer-Emmett-Teller (BET) specific surface area of all samples was presented in the Table S1.