

SUPPLEMENTARY INFORMATION SECTION

Core-Shell Structured $\text{Fe}_3\text{O}_4@\text{SiO}_2@\text{CdS}$ Nanoparticles with Enhanced Visible-Light Photocatalytic Activities

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The mass ratio of CdS in each heterogeneous compound can be calculated according to the statistics in tables of EDS images. We use the mass of element S as reference. So the mass ratio of CdS is calculated by this equation:

$$w(\text{CdS})\% = \frac{w(\text{S})}{m(\text{S})} \times m(\text{CdS})$$

Here, $m(s)$ and $m(\text{CdS})$ represents the molar mass of S and CdS, respectively, $w(s)$ represents the weight percentage of S determined by EDS.

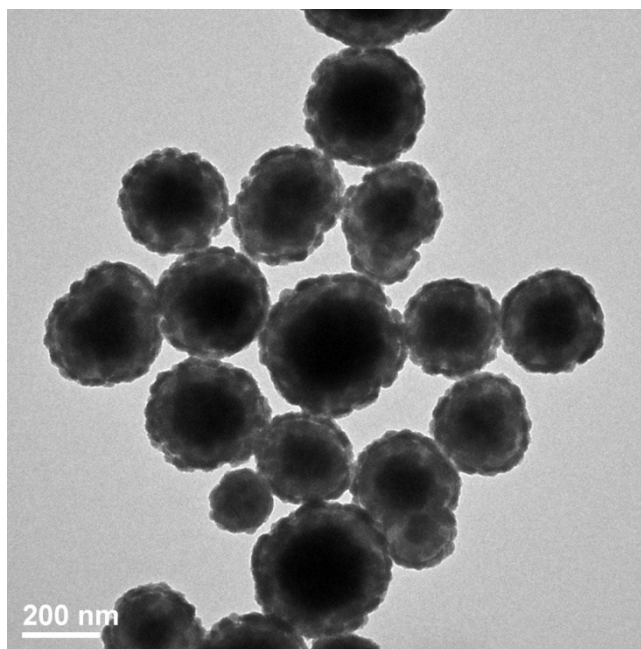


Fig. S1 TEM images of $\text{Fe}_3\text{O}_4@SiO_2@CdS$ NPs

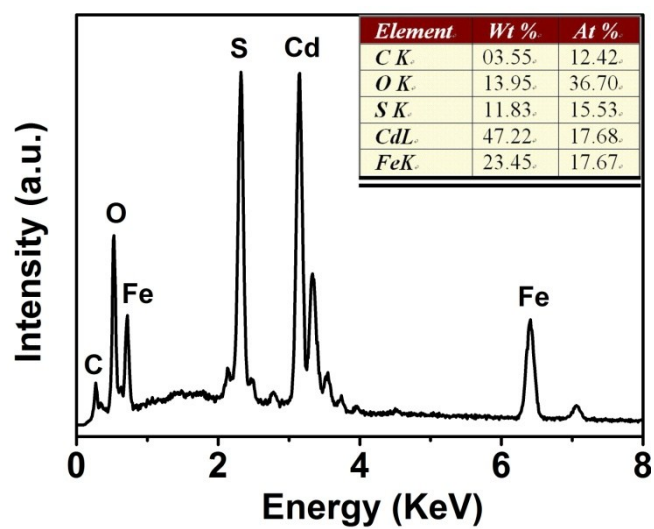


Fig. S2 EDS patterns of $\text{Fe}_3\text{O}_4@CdS$ NPs

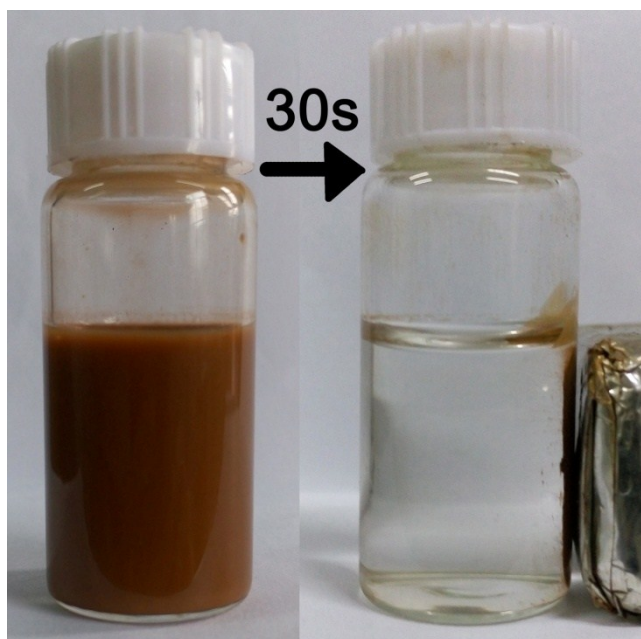


Fig. S3 Magnetic recovery of the $\text{Fe}_3\text{O}_4@SiO_2@CdS$ NPs