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Supporting Information



Figure S1: (a) and (b) Top-view SEM images of $Fe_2O_3/g-C_3N_4$ -1 and $Fe_2O_3/g-C_3N_4$ -3 (c) ,(d) Cross-sectional electron microscopy (SEM)

images of Fe₂O₃/g-C₃N₄-1and Fe₂O₃/g-C₃N₄-3



Figure S2: (a)The transmission electron microscope images (TEM) of $Fe_2O_3/g-C_3N_4-2$ (b)The high-resolution transmission electron microscopy image of $Fe_2O_3/g-C_3N_4-2$; (c)TEM image in dark-field mode of $Fe_2O_3/g-C_3N_4-2$;

C₃N₄-2; (d-g) The element mapping images of C $\$ Fe $\$ N $\$ O



Figure S3: Fourier transform infrared spectra of Fe_2O_3 , $Fe_2O_3/g-C_3N_4$ -

1、 $Fe_2O_3/g-C_3N_4-2$ 、 $Fe_2O_3/g-C_3N_4-3$ and $Fe_2O_3/g-C_3N_4-4$