Electronic Supplementary Information

Construction of magnetic Z-scheme photocatalyst for enhanced the oxidation/reduction ability and recyclable availability on degradation of tetracycline

Zihong Pan[a*], Wei Ma[a], Li Wang[a]

a. School of Chemical and Environmental Engineering, Pingdingshan University, China

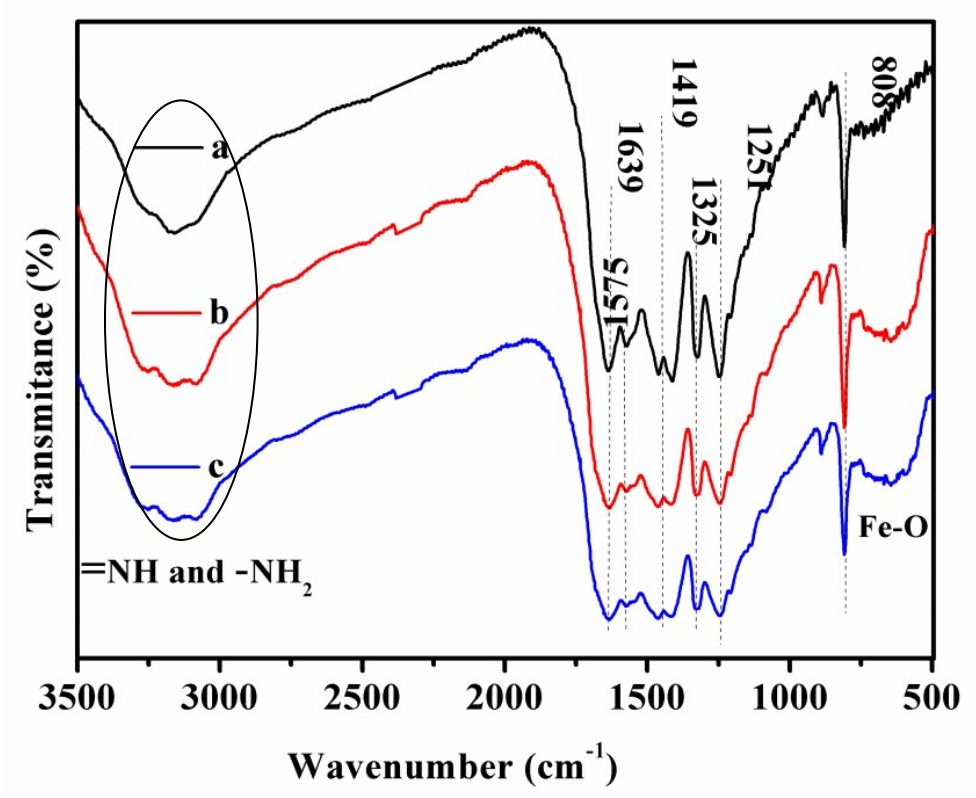

Fig. S1 FT-IR spectra of g-C_3N_4 (a), Fe_3O_4/g-C_3N_4 (b), WO_3/Fe_3O_4/g-C_3N_4 (c)

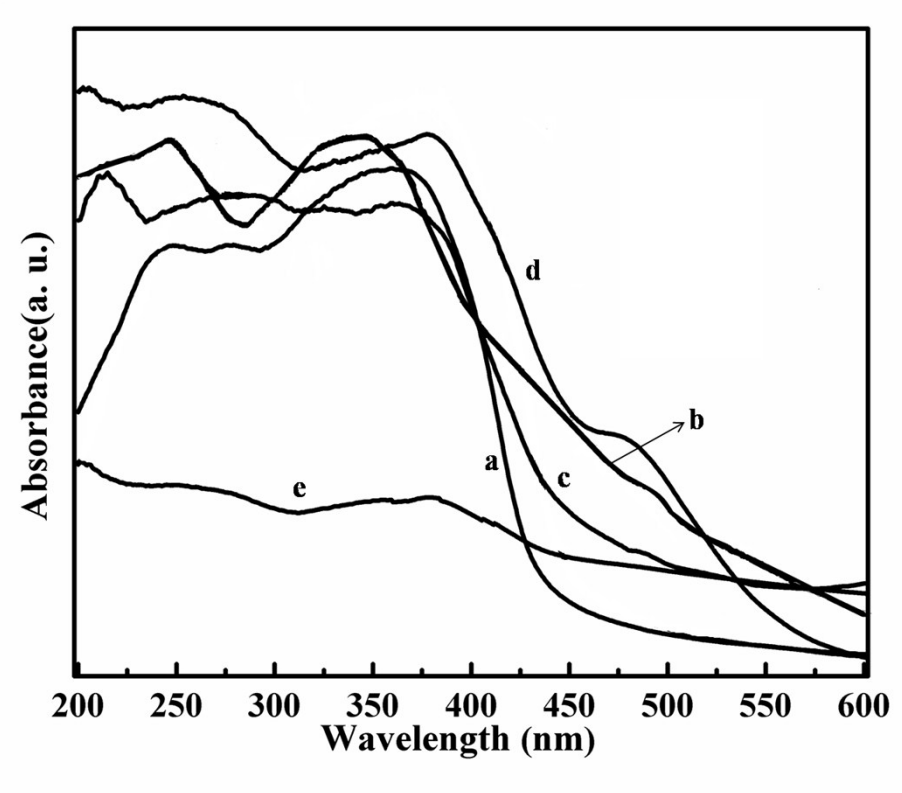

Fig. S2 UV−vis absorbance spectra of Fe_3O_4/g-C_3N_4 with different Fe_3O_4 content: 40 wt.%, 20 wt.%, 10 wt.%, 5.0 wt.%, and 3.0 wt.%;

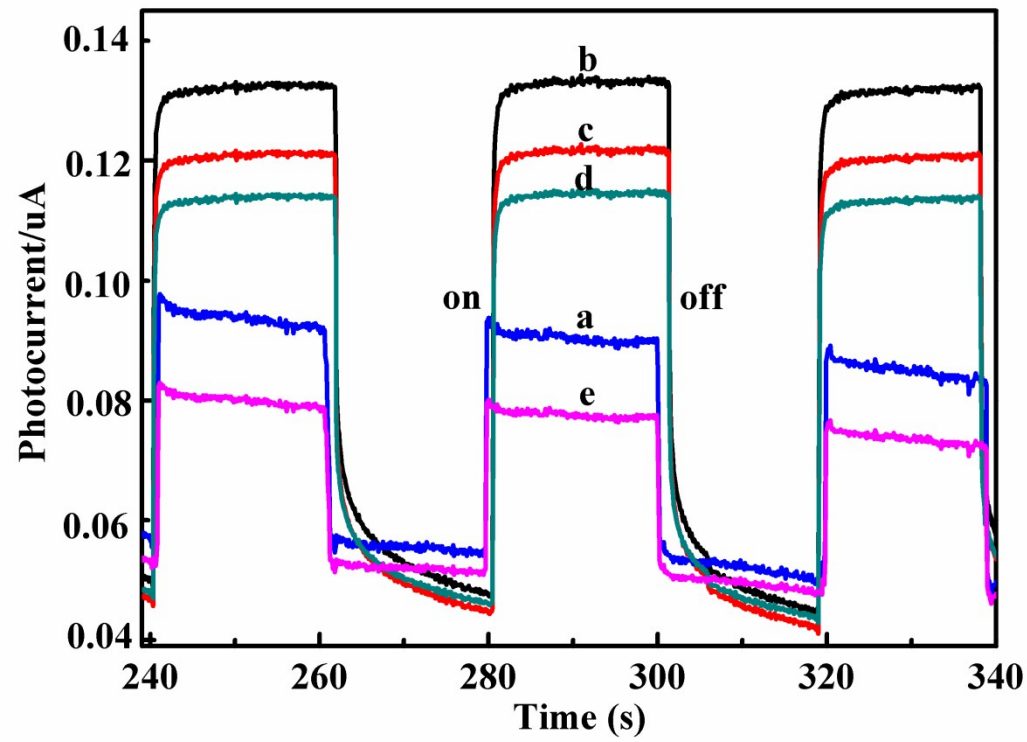

Fig. S3 Photocurrent response curves of WO_3/Fe_3O_4/g-C_3N_4 with different WO_3 content, 0.5 wt.% (a), 1.0 wt.% (b), 2.0 wt.%(c), 5.0 wt.% (d), 10 wt.%(e)

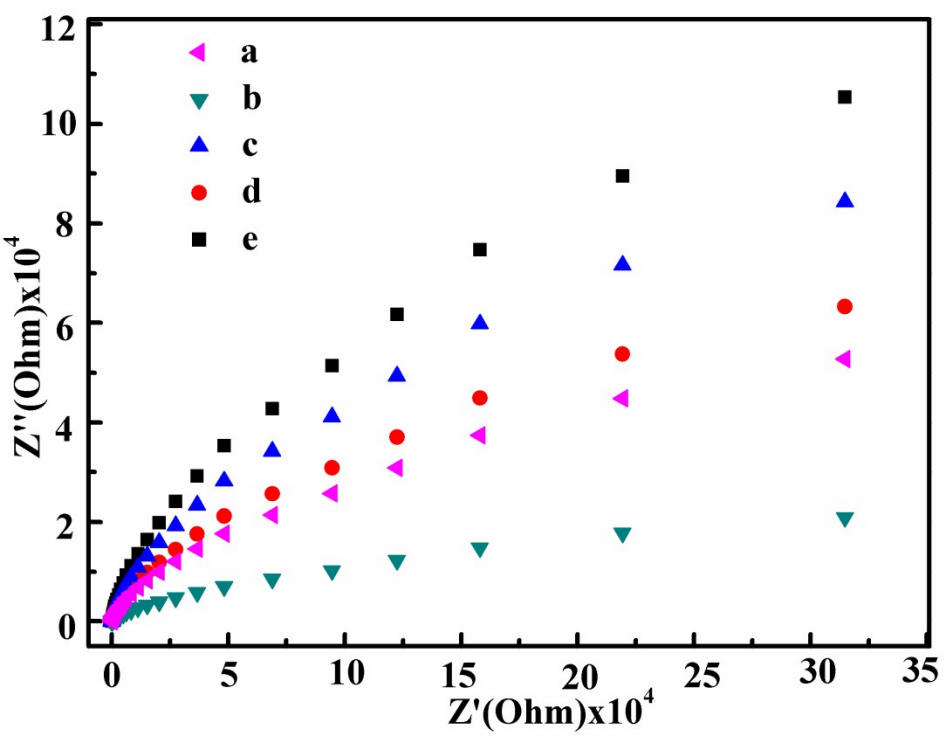

Fig. S4 EIS spectra of $WO_3/Fe_3O_4/g\text{-}C_3N_4$ with different WO_3 content, 0.5 wt.% (a), 1.0 wt.% (b), 2.0 wt.%(c), 5.0 wt.% (d), 10 wt.%(e)

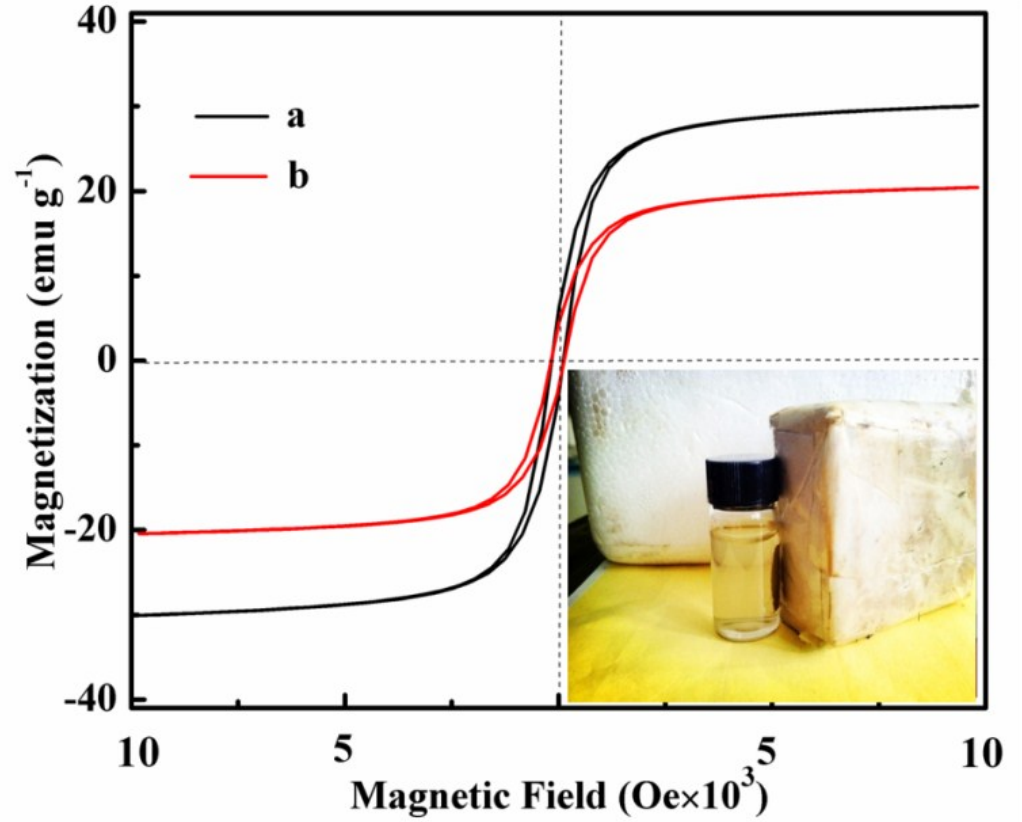

Fig. S5 Hysteresis loops of $Fe_3O_4/g\text{-}C_3N_4$ (a), $WO_3/Fe_3O_4/g\text{-}C_3N_4$ (b), inset image is $WO_3/Fe_3O_4/g\text{-}C_3N_4$ attracted by magnetic field

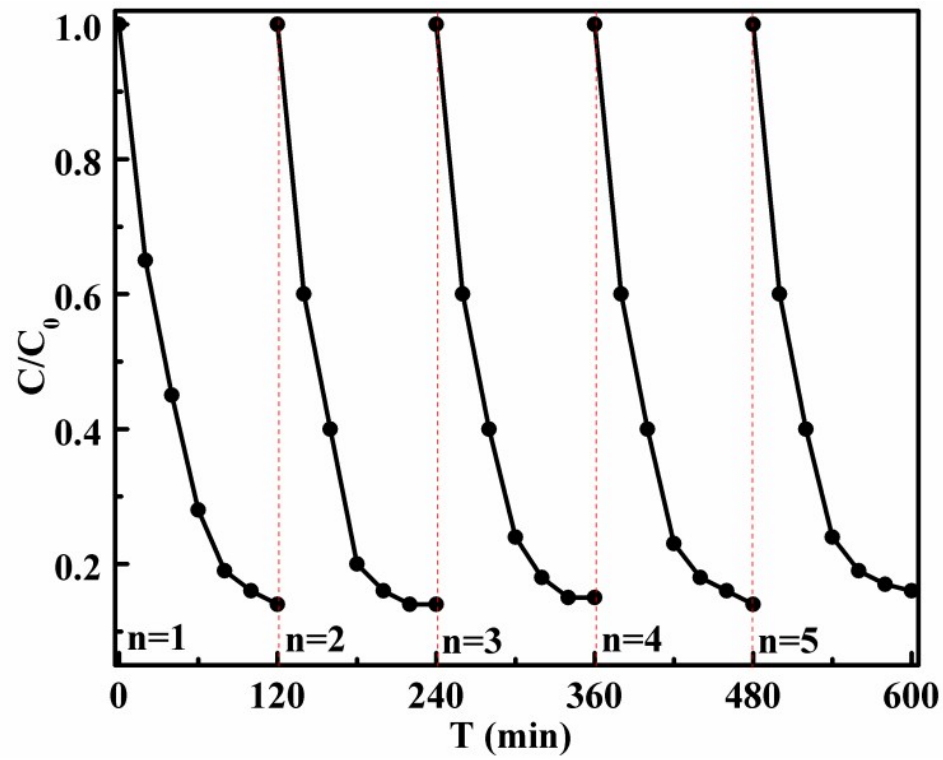

Fig. S6 Recyclability of $WO_3/Fe_3O_4/g\text{-}C_3N_4$ for degradation of tetracycline