

Figure S1 TEM images of the as-prepared Au/Pdop/ Fe₃O₄ NPs with 0.3 mM HAuCl₄



Figure S3 X-ray photoelectron spectrum of C1s for Au/Pdop/SiO₂/ Fe₃O₄ NPs.



Figure S4 the optical imagine of original MB(left) and the remaining solution(right) after catalyzed by Au/Pdop/SiO₂/ Fe_3O_4 NPs



Figure S5 Recycle experiment of degradation of MB after catalyzed by Au/Pdop/SiO_2/Fe_3O_4 NPs