Traditional method for synthesis of cobalt ferrite NMPs:

An aliquot of 2.712 g of $FeCl_3 \cdot 6H_2O$ and 1.673g of $Co(acac)_2$ were dissolved into 100.0 mL DMF: EG (v/v=1:3). The pH value of the mixture was adjust to 10.0 by $NH_3 \cdot H_2O$ under N_2. The mixture was stirred for 2 h at 80°C and then rapidly cooled to 50°C and continuous reacted for another 1 h. The brown product was collected by magnetic separation, washed with water and alcohol six times and then freeze dried for 12 h. In the end, $CoFe_2O_4$ was obtained for the subsequent experiments.

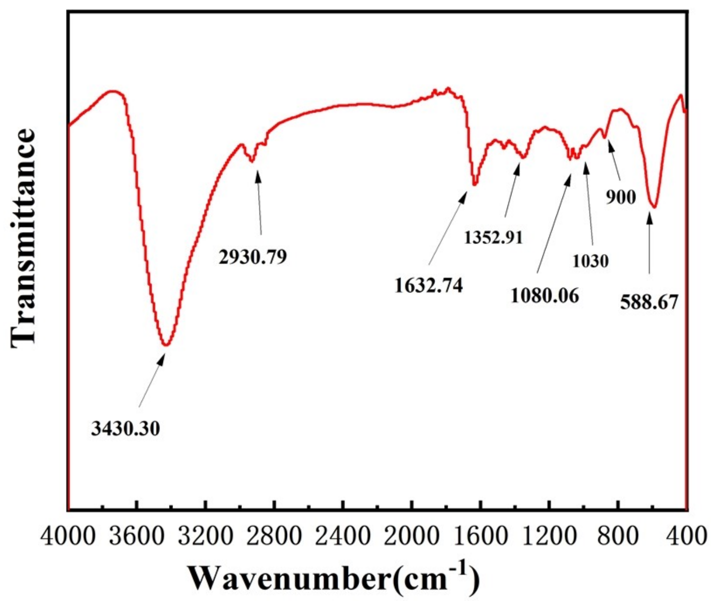
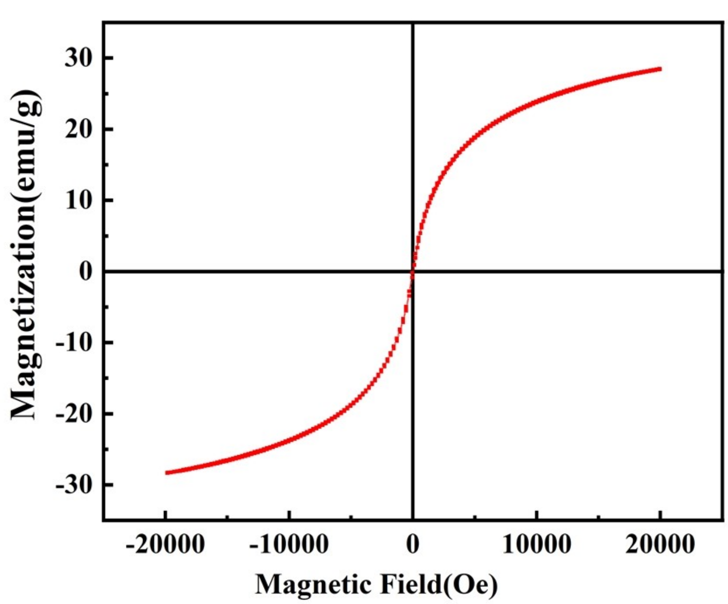
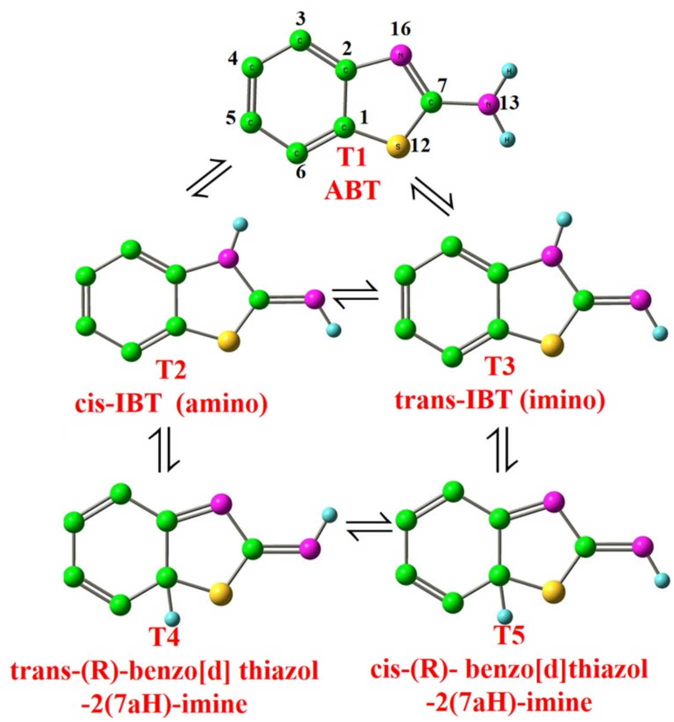


Fig.S1 FT-IR image of $CoFe_2O_4$/rGO

Fig.S2 Hysteresis line diagram of $CoFe_2O_4$/rGO





Scheme S1 Schematic representation of proton transfer path for ABT in aqueous solution

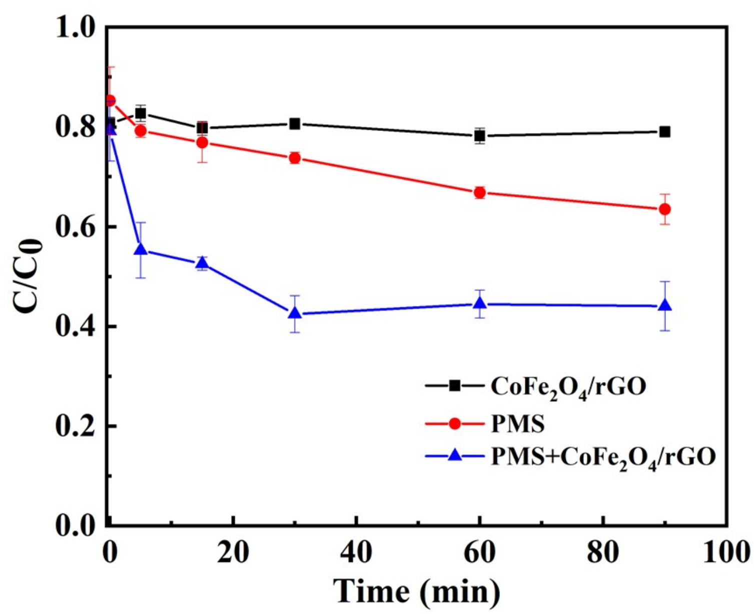


Fig.S3 Removal efficiencies of three degradation system

Experiment conditions: c_{ABT}=10.0 mg/L，Material amount =15.0 mg, pH=8.0, c_{PMS}=2.0 mM

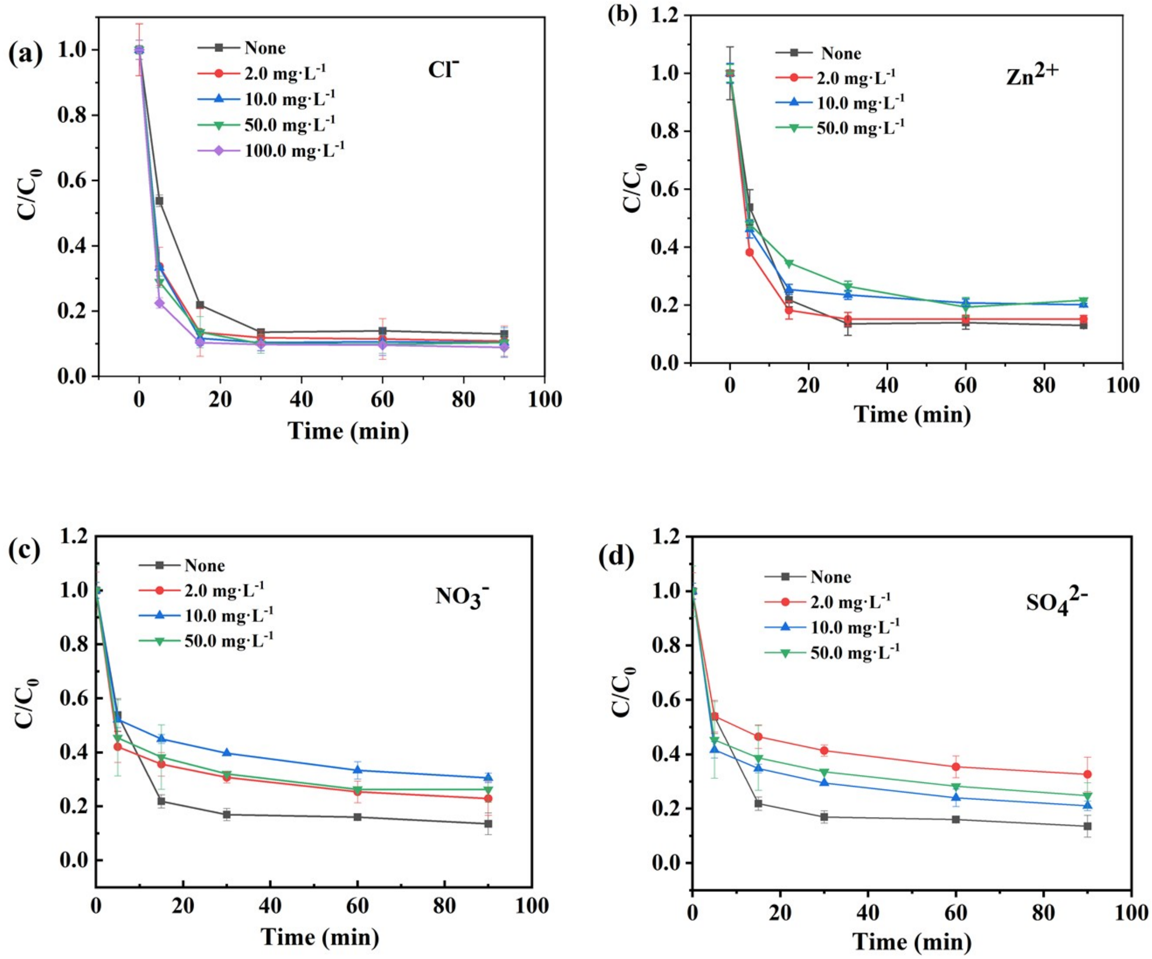


Fig.S4 Effect of inorganic anions (Cl^- (a), HCO_3^- (b), NO_3^- (c)and SO_4^{2-} (d)) on degradation efficiency

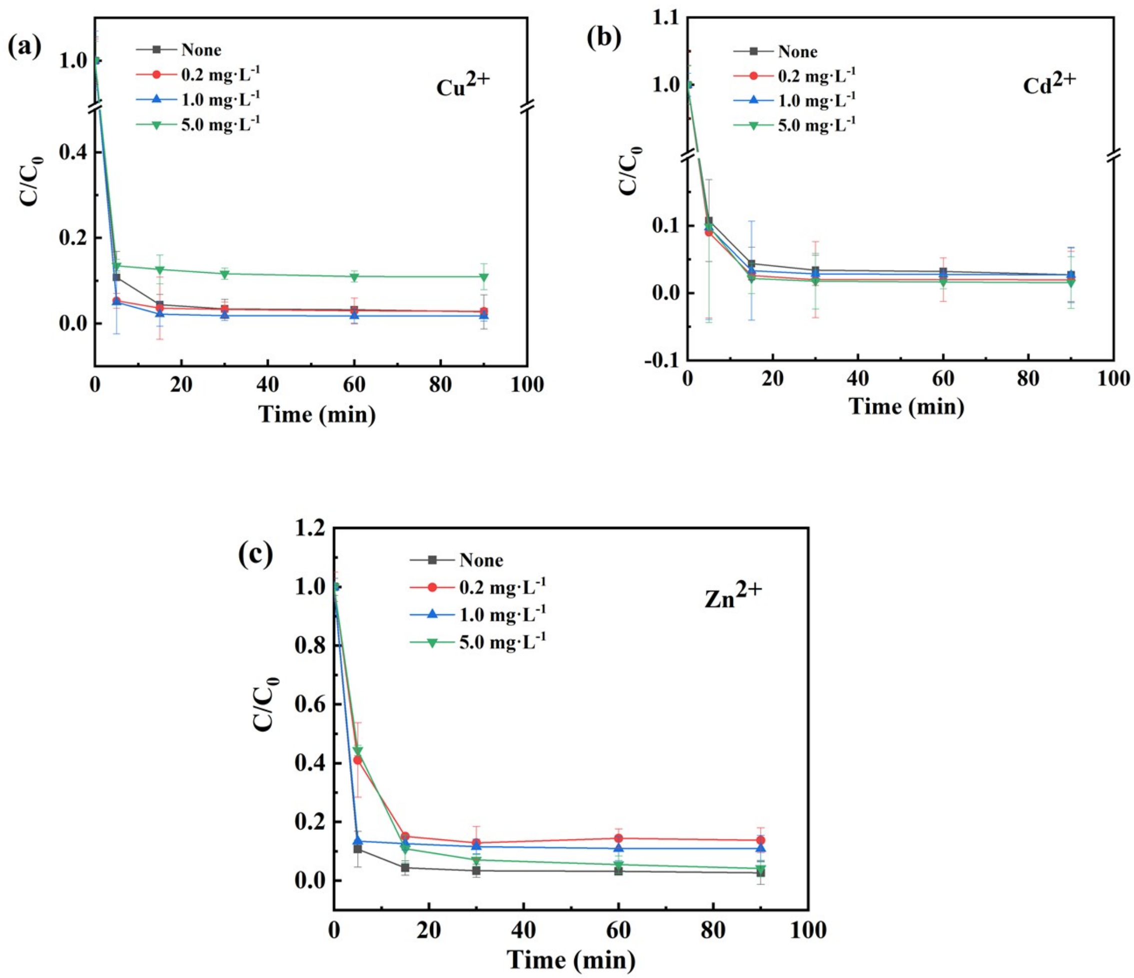


Fig.S5. Effect of metal cations (Cu^{2+}(a), Cd^{2+} (b) and Zn^{2+}(c)) on degradation efficiency

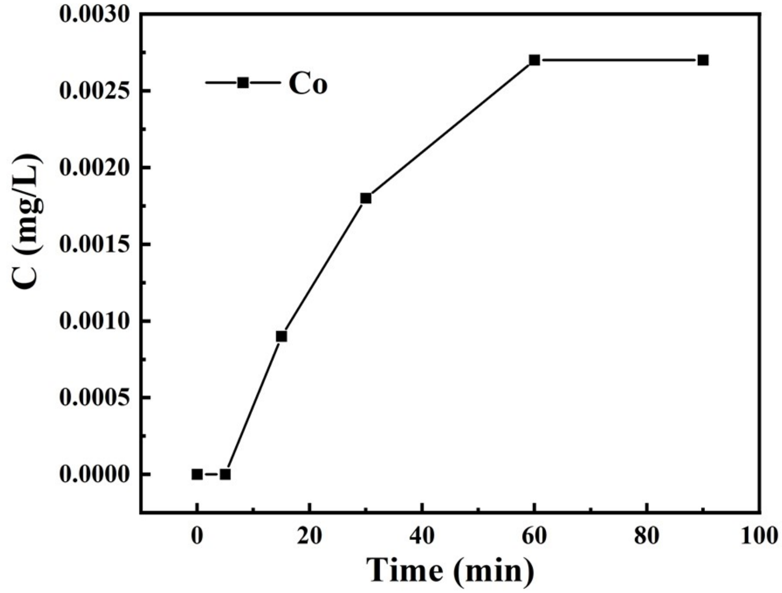


Fig.S6 Metal leaching diagram

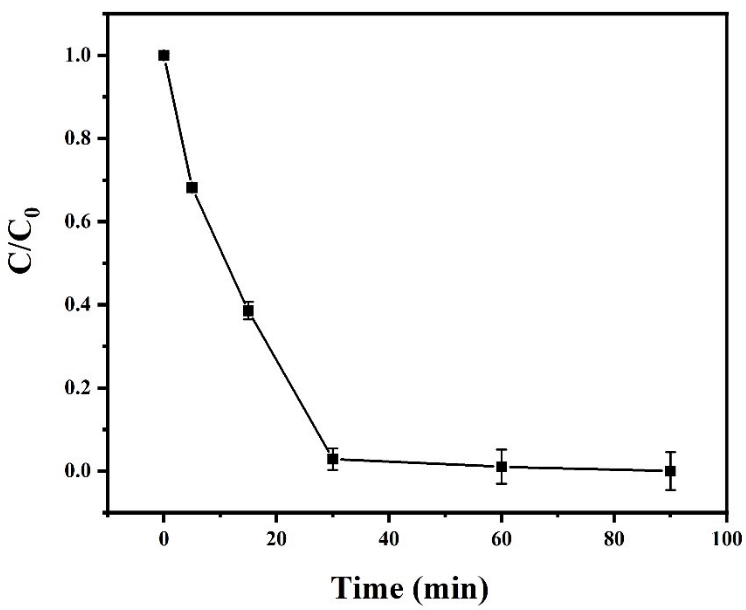


Fig.S7 Degradation rate of ABT in real water samples