Supplementary Information

Magnetically Separable $CdFe_2O_4$/Graphene Catalyst and its Enhanced Photocatalytic Properties

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Electrochemical impedance spectra (EIS) were carried out at the open circuit potential of 10 mV over the frequency range of 100 KHz to 1Hz on a CHI660D electrochemical workstation (Shanghai Chenhua, China). During all measurements, the electrolyte was 0.1 $mg \cdot L^{-1}$ Na_2SO_4.

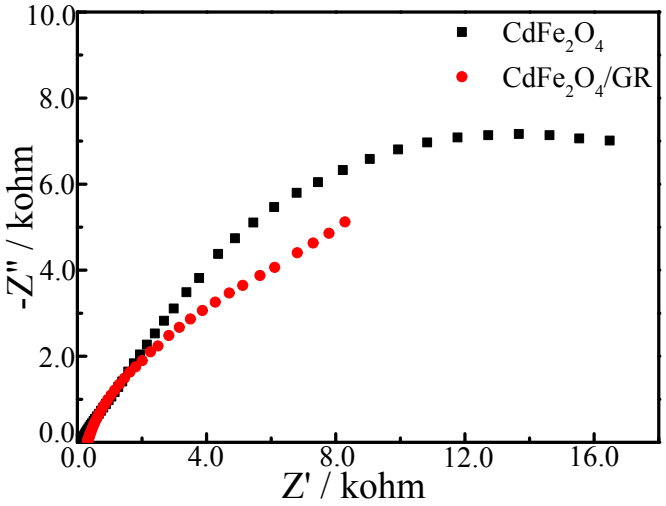

Fig.S1 EIS Nyquist plots of $CdFe_2O_4$/Gr and $CdFe_2O_4$ electrodes in 0.1M Na_2SO_4 aqueous solutions

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The improved charge separation and transfer efficiency in $CdFe_2O_4$ and $CdFe_2O_4$/GR was further confirmed by electrochemical impedance spectroscopy (EIS) (Fig.1S). The diameter of the arc radius on the EIS Nyquist plot of $CdFe_2O_4$/GR is smaller than that of $CdFe_2O_4$, which implies the higher efficiency of charge transfer for $CdFe_2O_4$/GR.