## **Supporting Information**

## UV light assisted synthesis of ternary reduced graphene

## oxide hybrid materials and their photocatalytic performance

YuLinMin<sup>a,b,1</sup>,GuangQiang He<sup>b</sup>, QunJie Xu<sup>a,2</sup>, YouCun Chen<sup>b</sup>

<sup>a</sup> College of Environmental and Chemical Engineering, ShangHai University of

Electric Power, ShangHai 200090, P.R.China

<sup>b</sup> College of Chemistry and Chemical Engineering, Anqing Normal University,

Anqing 246011, P.R.China

<sup>&</sup>lt;sup>1</sup>Corresponding author. Tel./fax: +86 35304402,

*E-mail address*: ahaqmylin@126.com(Y L Min) <sup>2</sup> Corresponding author. Tel./fax: +86 021 35304734

E-mail address: xuqunjie@shiep.edu.cn(Q J Xu)



Fig S-1: SEM images of Pt-RGO/P25.



Fig S-2. C1s XPS spectrum of GO.



Fig S-3. FT-IR spectra of P25, GO and Pt-RGO/P25.



**Fig S-4.** Time-online adsorption spectra of Rh.B over 3 Pt-RGO/P25 for 120 min in the dark condition.



**Fig S-5.** UV-Vis spectra of Rh.B concentration against P25 (a) and 3 Pt-RGO/P25 (b) composite under UV light as time function.



Fig S-6. UV-Vis spectra of Rh.B concentration against P25 (a) and 3 Pt-RGO/P25 (b) composite under  $\lambda > 600$  irradiation as time function.