Supporting Information

Synthesis of Fe₃O₄ and Pt nanoparticles on reduced graphene oxide used as recyclable catalyst

Shixin Wu,¹# Qiyuan He,¹# Chunmei Zhou,ᵇ Xiaoying Qi,ᶜ Xiao Huang,ᵃ Zongyou Yin,ᵃ Yanhui Yang,*ᵇ and Hua Zhang*ᵃ

ᵃ School of Materials Science and Engineering, Nanyang Technological University, 50 Nanyang Avenue, Singapore 639798, Singapore
ᵇ School of Chemical and Biomedical Engineering, Nanyang Technological University, Singapore 637459, Singapore
ᶜ Singapore Institute of Manufacturing Technology, 71 Nanyang Drive, Singapore 638075, Singapore

# These authors contributed equally to this work.

* Corresponding authors. E-mail: HZhang@ntu.edu.sg; YHYang@ntu.edu.sg
Website: http://www.ntu.edu.sg/home/hzhang/
**Fig. S1** (A) TEM images of Fe$_3$O$_4$/rGO. (B) EDS spectrum collected from the rectangular area in (A).

**Fig. S2** (A) TEM image of Fe$_3$O$_4$-Pt/rGO. (B) EDS spectrum collected from the rectangular area in (A).
**Fig. S3** (A) TEM images of Fe$_3$O$_4$/rGO synthesized with the mass feed ratio of GO to Fe$_3$O$_4$ is 1:1. (B, C) TEM images of Fe$_3$O$_4$-Pt/rGO synthesized by mixing 0.6 mg of K$_2$PtCl$_6$ and 6 mg of Fe$_3$O$_4$/rGO powder in (A). (D) HRTEM image of a Fe$_3$O$_4$ nanoparticle and a Pt nanoparticle on rGO.