

Supplementary Information

Self-assembled three-dimensional graphene-based materials for dye adsorption and catalysis

Xueping Zhang,^{a, b} Dong Liu,^a Lu Yang,^a Limin, Zhou,^{a, b} and Tianyan You^{*a}

^aState Key Laboratory of Electroanalytical Chemistry, Changchun Institute of Applied Chemistry,

Chinese Academy of Sciences, Changchun 130022, China

^bUniversity of Chinese Academy of Sciences, Beijing 100049, China

^{*a}Corresponding author.

Email: youty@ciac.jl.cn (T. Y. You), Tel: +86-431-85262850

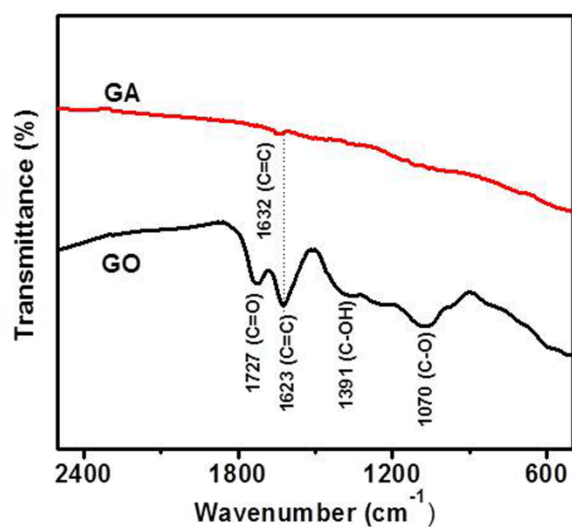


Fig. S1 FT-IR spectra of GO and GA samples.

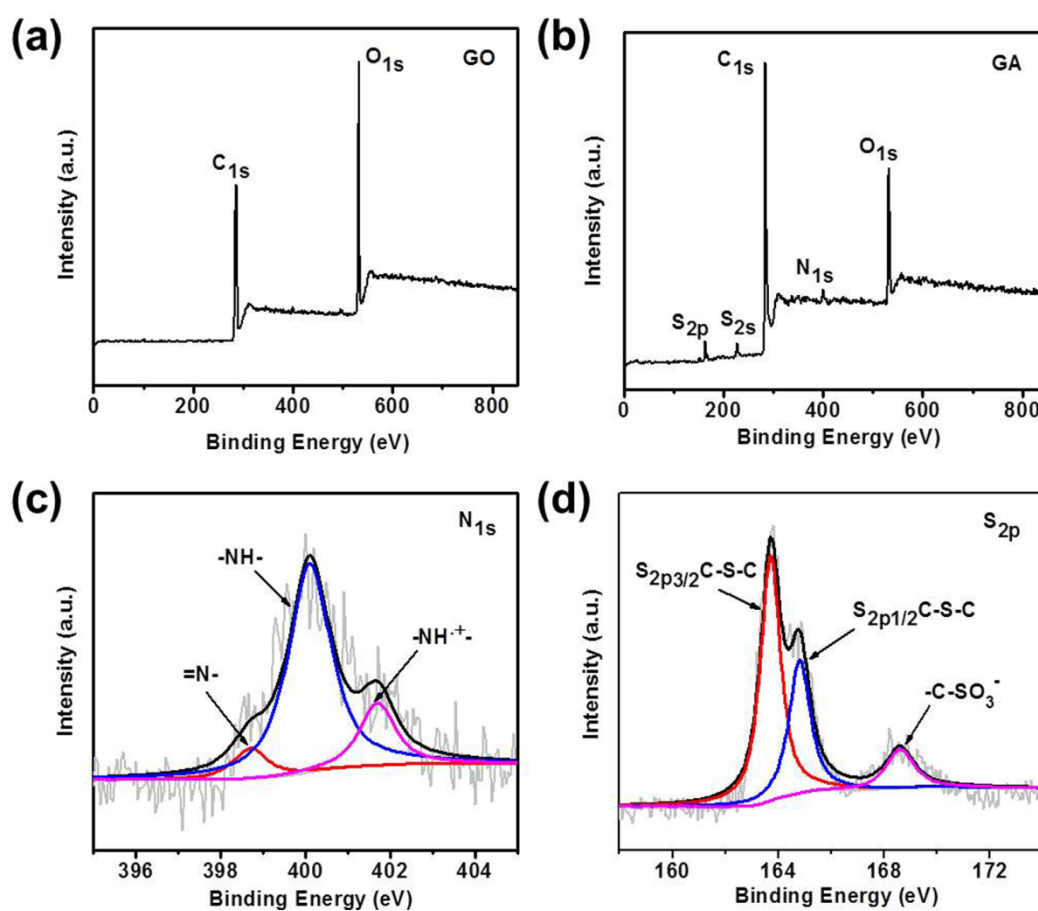


Fig. S2 XPS survey spectra of GO (a) and GA (b). XPS N_{1s} (c) and S_{2p} (d) spectra of GA.

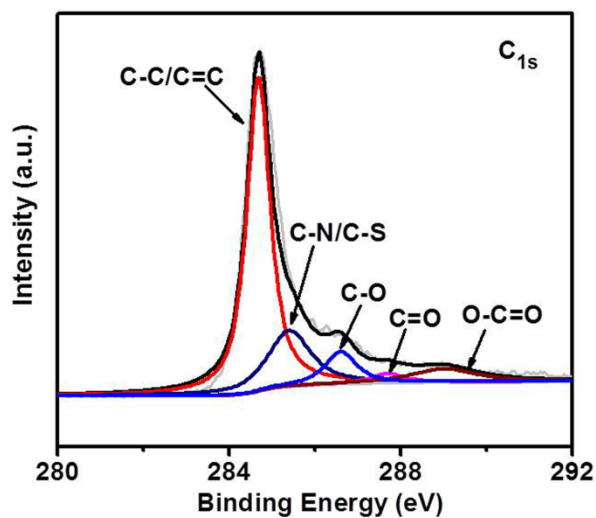


Fig. S3 XPS C_{1s} spectra of PtNPs/GA.

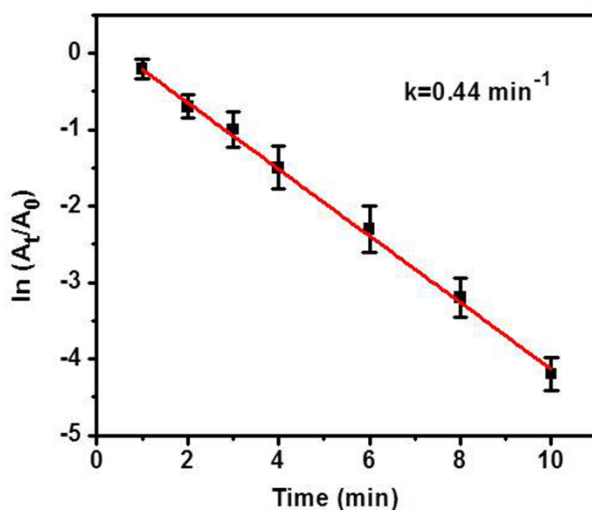


Fig. S4 Kinetic curve for the reduction of 4-nitroaniline by NaBH_4 in the presence of PtNPs/GA (A_t and A_0 are the absorbance of 4-nitroaniline solution at time t and 0, respectively).

References

- 1 H. S. Oh, K. Kim and H. Kim, *Int. J. Hydrogen Energy*, 2011, **36**, 11564.
- 2 Y. Q. Dong, H. C. Pang, H. B. Yang, C. X. Guo, J. W. Shao, Y. W. Chi, C. M. Li and T. Yu, *Angew. Chem. Int. Ed.*, 2013, **52**, 7800.
- 3 H. Huang, Y. C. Lu, A. J. Wang, J. H. Liu, J. R. Chen and J. J. Feng, *RSC Adv.*, 2014, **4**, 11872.