Supplementary Information

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

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**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**