

Electronic Supplementary Information

**Mulberry-like gold nanospheres supported on graphene nanosheets:
One-pot synthesis, characterization and photoelectrochemical
property**

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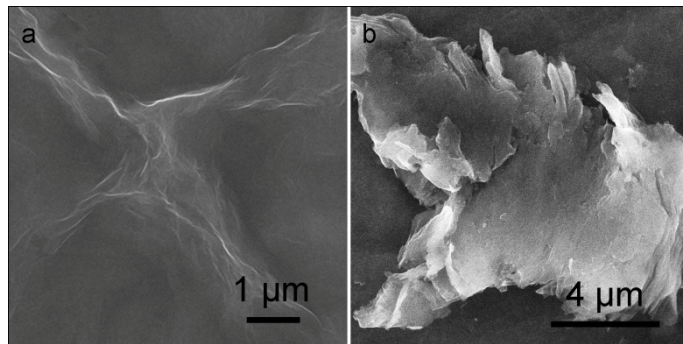


Fig. S1. SEM image of GO with (a) high and (b) low magnification.

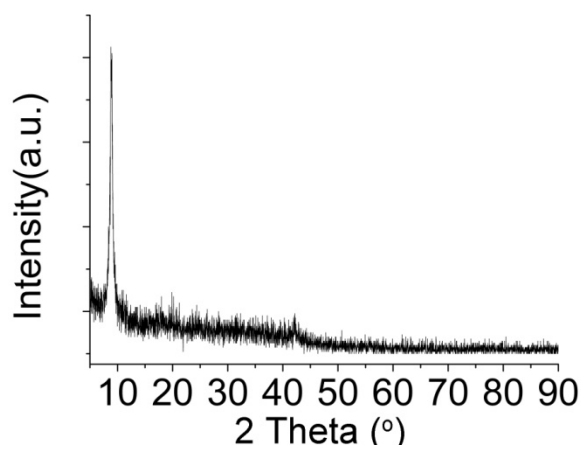


Fig. S2. XRD pattern of GO.

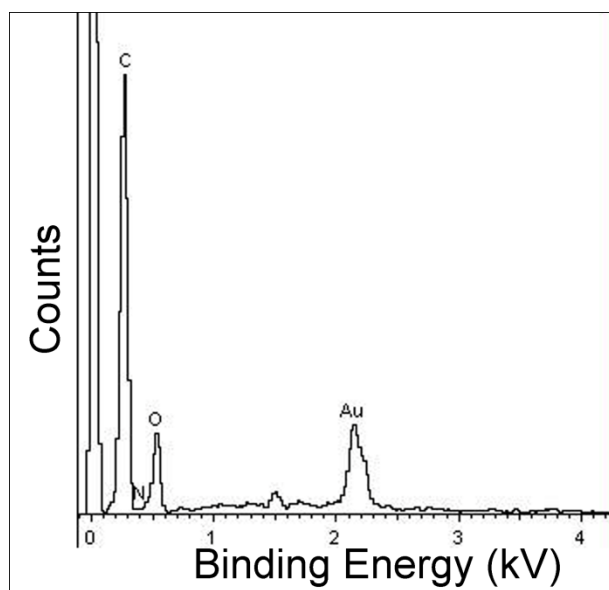


Fig. S3. EDX spectrum of MGNS/GNs.

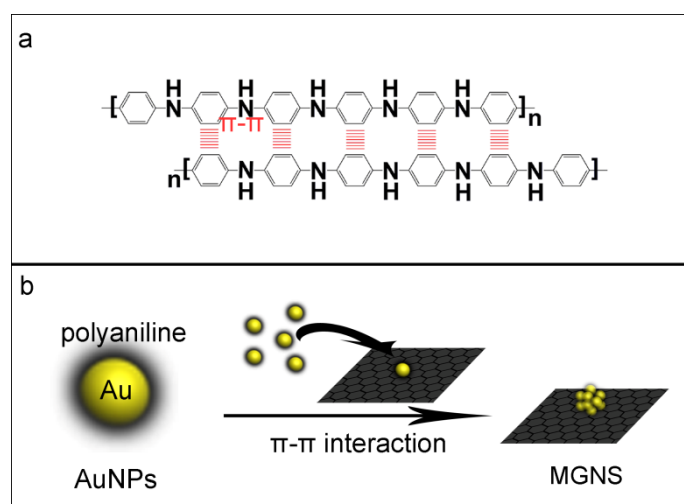


Fig. S4. Schematic illustration of (a) $\pi-\pi$ stacking interaction of PANI and (b) formation of MGNS.

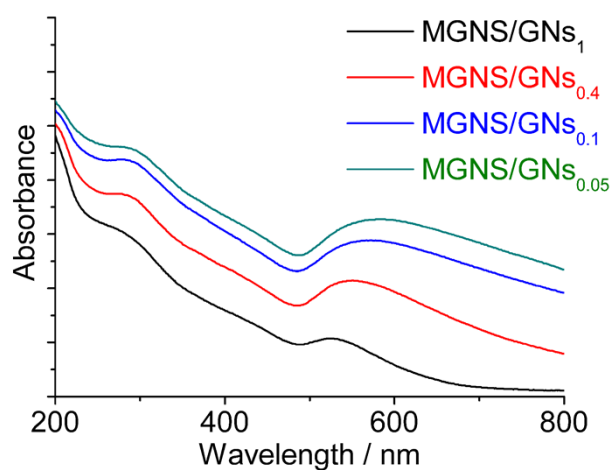


Fig. S5. UV-vis spectra of MGNS/GNs₁, MGNS/GNs_{0.4}, MGNS/GNs_{0.1} and MGNS/GNs_{0.05}.

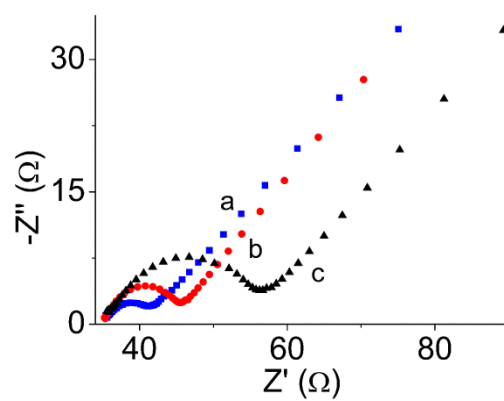


Fig. S6. Nyquist diagrams for EIS of ITO electrode in a solution of 0.1 mol/L KNO₃ containing 5 mmol/L Fe(CN)₆³⁻ and 5 mmol/L Fe(CN)₆⁴⁻. (a) Bare ITO electrode, (b) APTES modified ITO electrode and (c) MGNS/GNs modified ITO electrode.