Electronic Supplementary Material (ESI) for RSC Advances.

Aminopyrene Functionalized Reduced Graphene Oxide as Supercapacitor Electrode

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SUPPLEMENTARY DATA

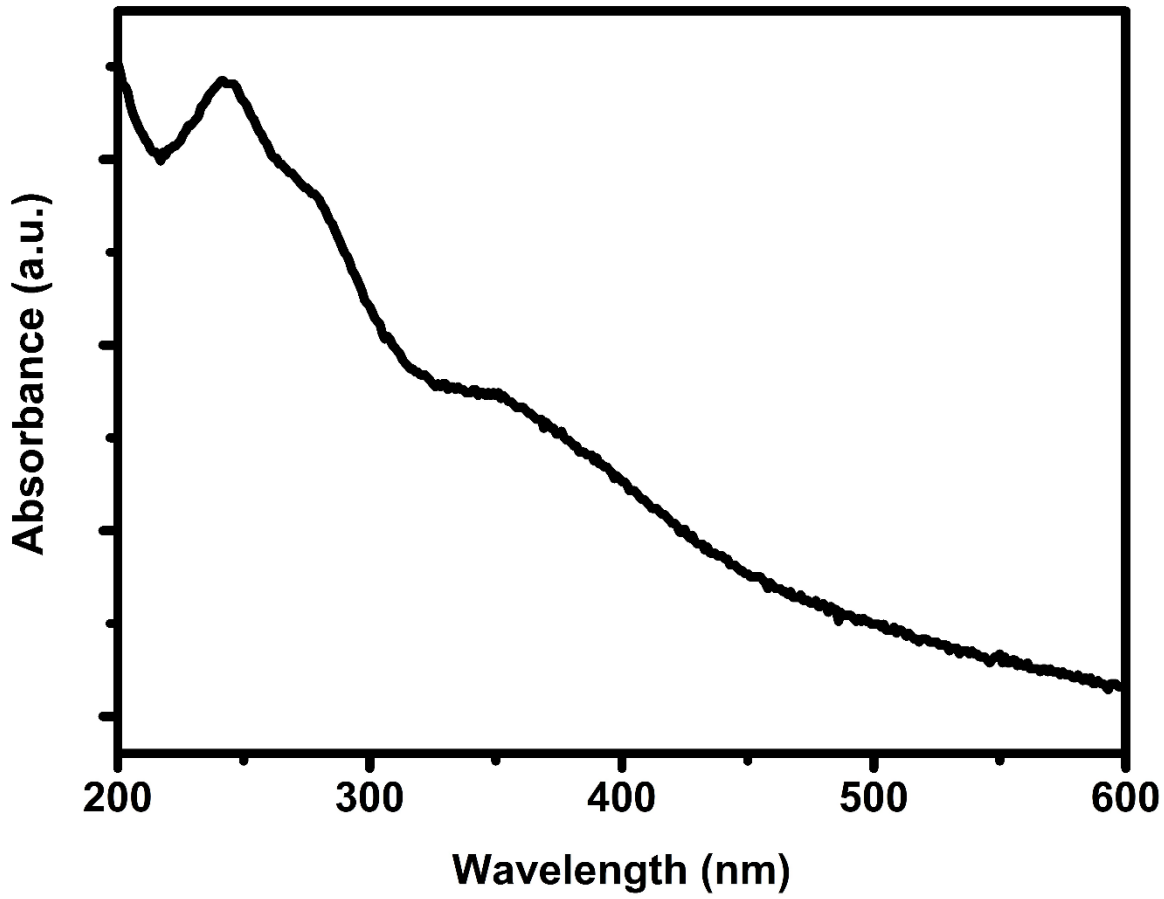

Figure S1 UV-Vis spectrum of filtrate shows the presence of 1-aminopyrene which indicates excessive 1-aminopyrene in the functionalization process.

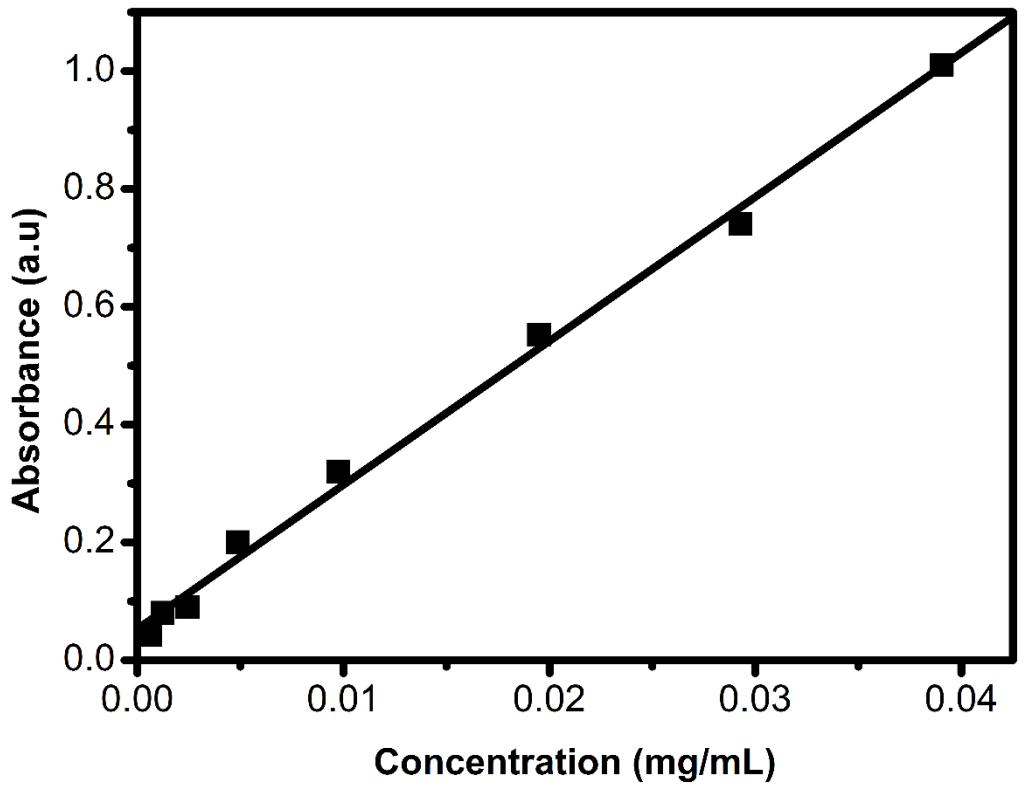

Figure S2 Calibration curve of series of 1-aminopyrene solutions for the quantification of aminopyrene in Ap-rGO.

Calculation:

20 mL of Ap-rGO solution (0.12 mg/mL) was prepared for quantification.

Absorbance for Ap-rGO solution = 0.199

Concentration of aminopyrene in Ap-rGO (from calibration curve) = 0.00601 mg/mL

Mass of aminopyrene in Ap-rGO = 0.00601 mg/mL × 20 mL = 0.1202 mg

Wt.% of aminopyrene in Ap-rGO = [0.1202 mg / (0.12 mg/mL × 20 mL)] × 100 % = 5 %

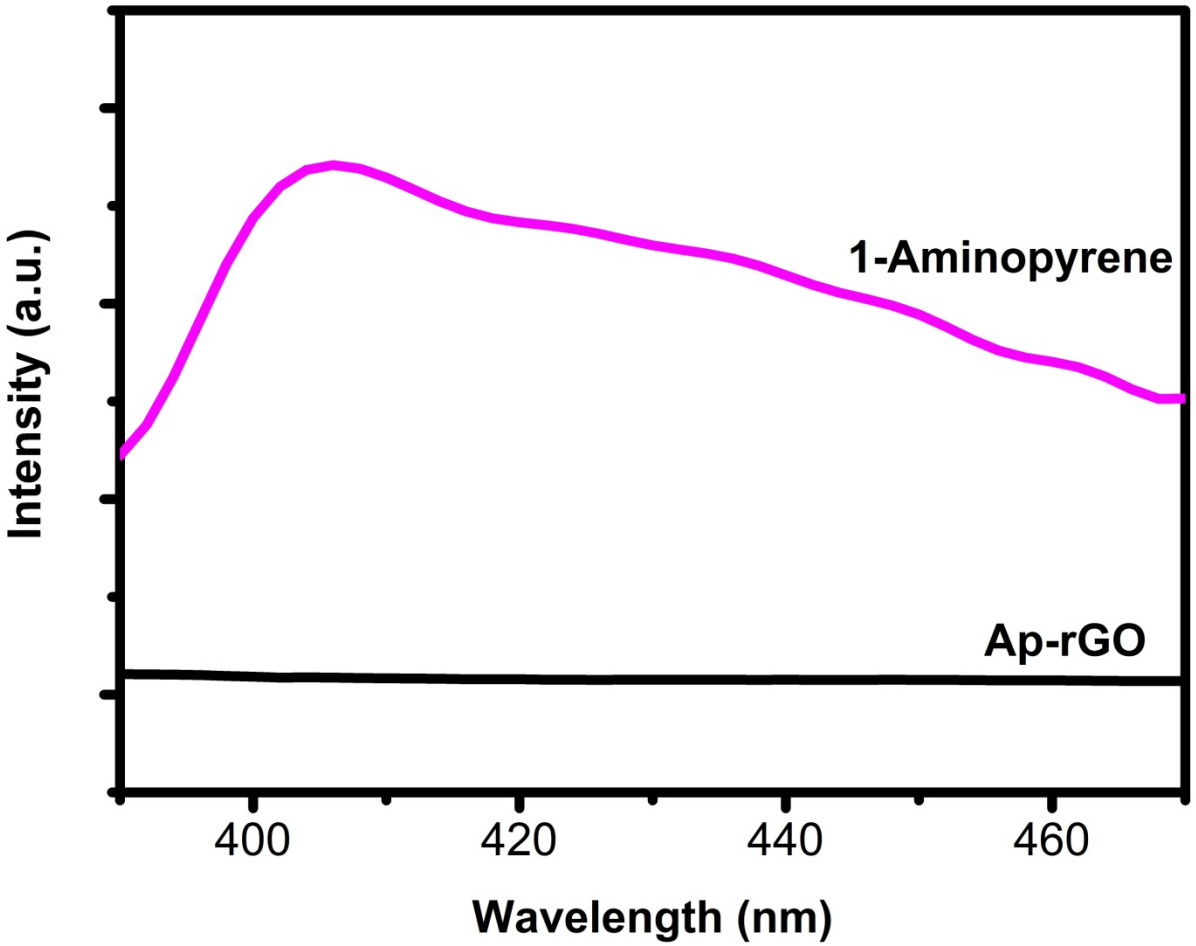

Figure S3 Fluorescence spectra of 1-aminopyrene and Ap-rGO at 356 nm excitation wavelength.

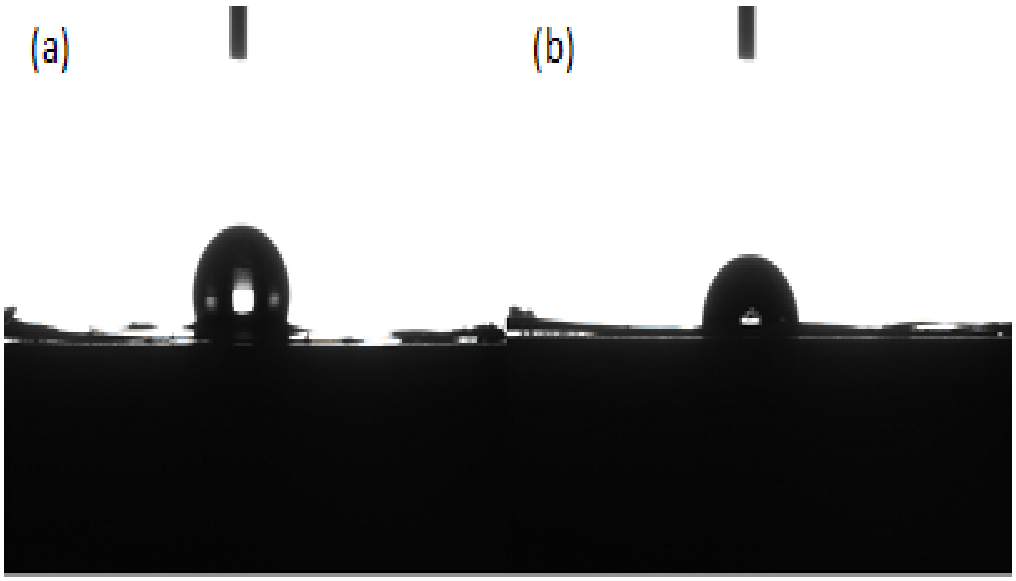

Figure S4 Contact angle testing for (a) rGO and (b) Ap-rGO.

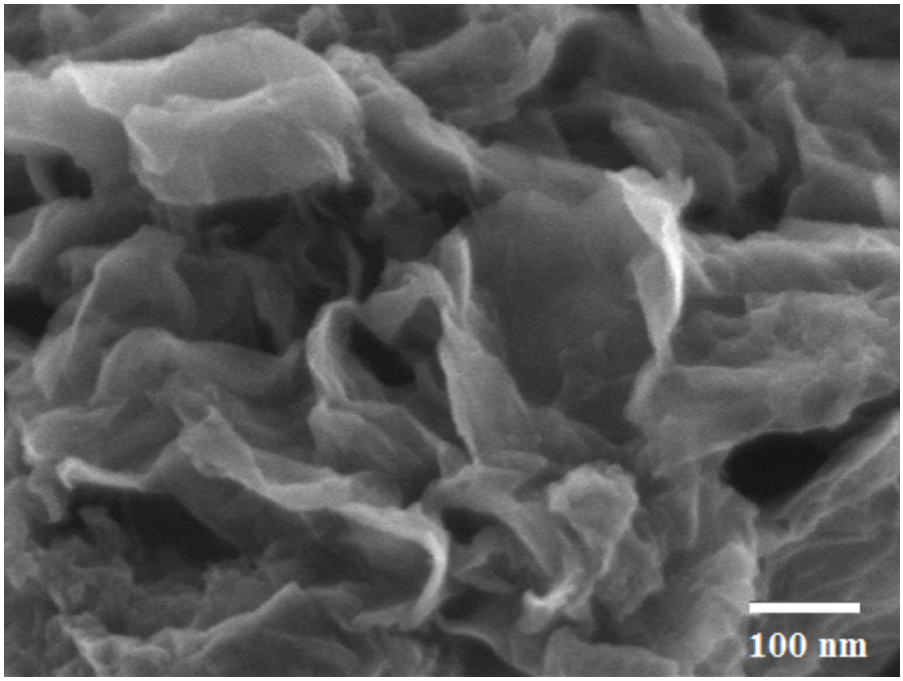

Figure S5 FESEM image of Ap-rGO.