

Supplementary Information for:

Control of pH-responsiveness in graphene oxide grafted with poly-DEAEMA via tailored functionalization

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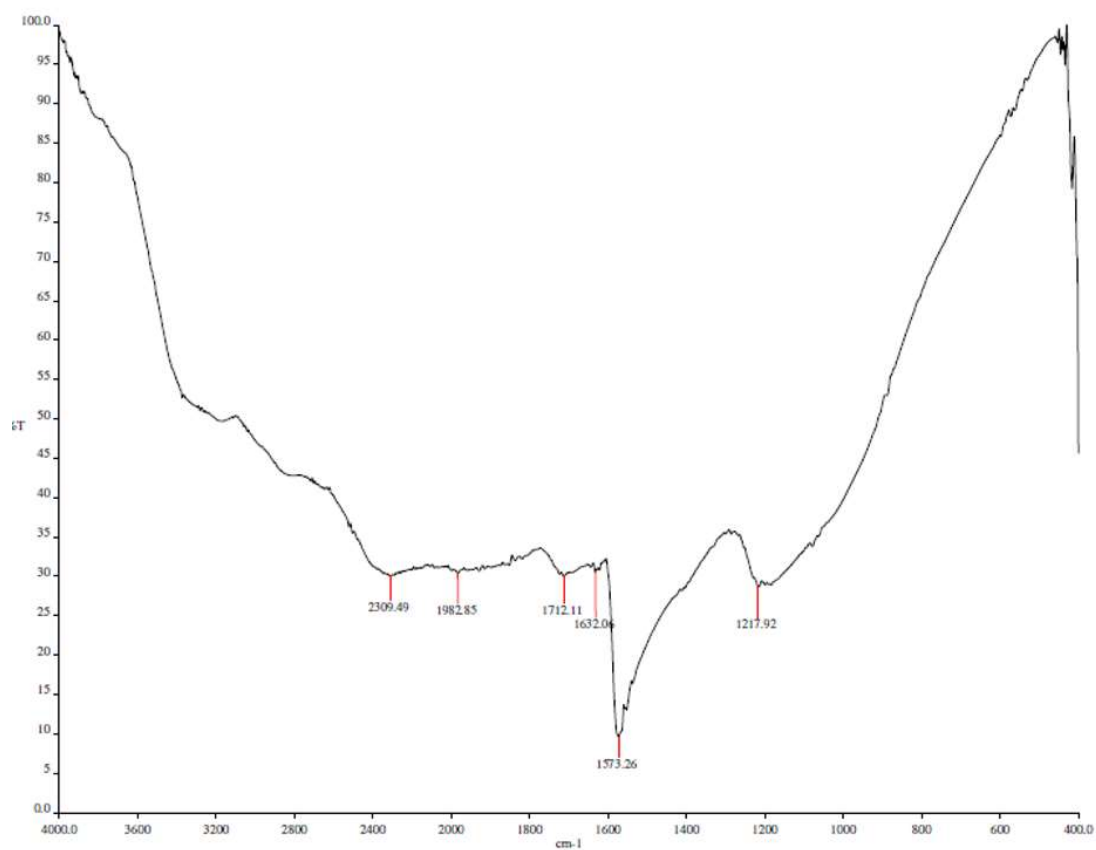


Figure S1. FT-IR spectrum of GO.

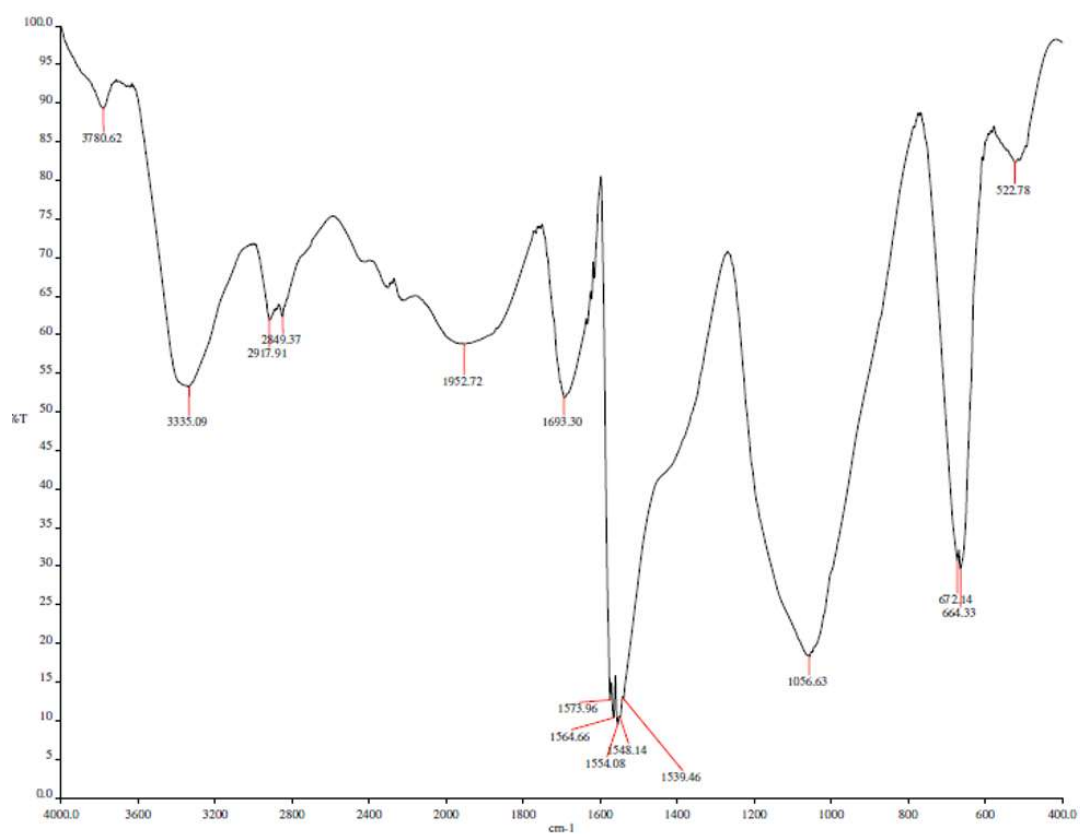


Figure S2. FT-IR spectrum of GO-g-NHS.

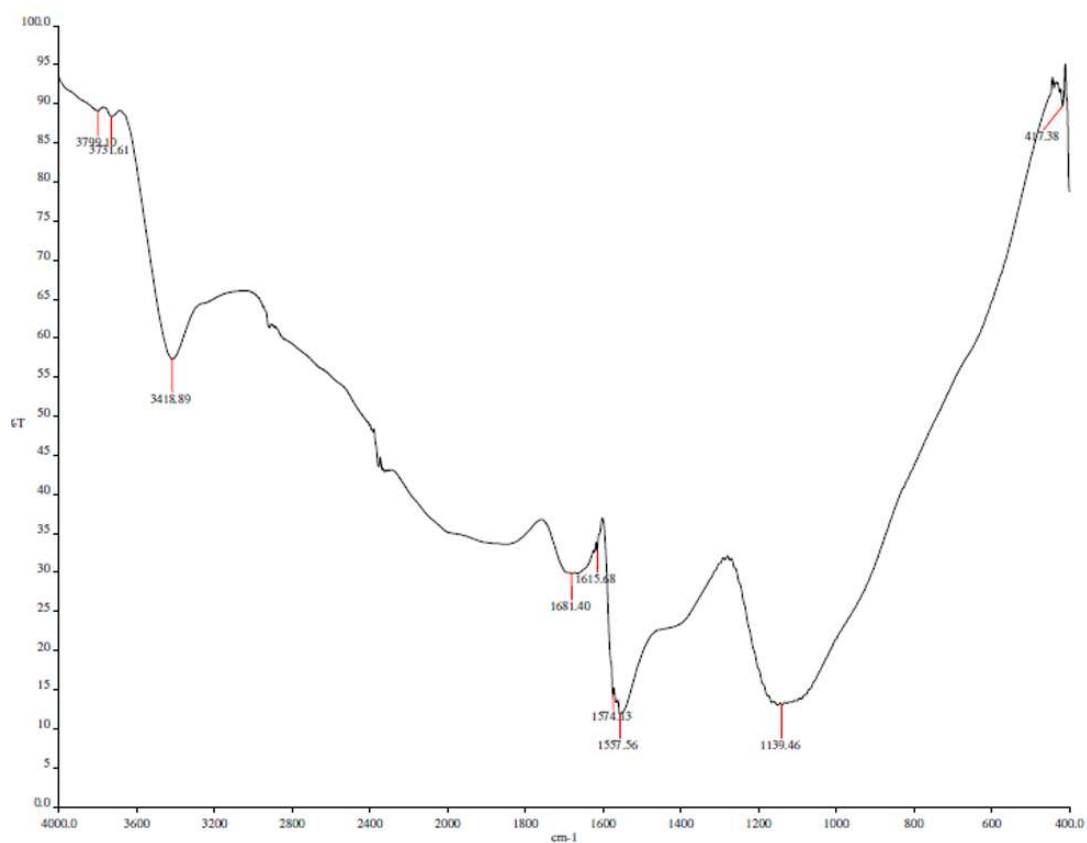


Figure S3. FT-IR spectrum of GO-*g*-AEMA.

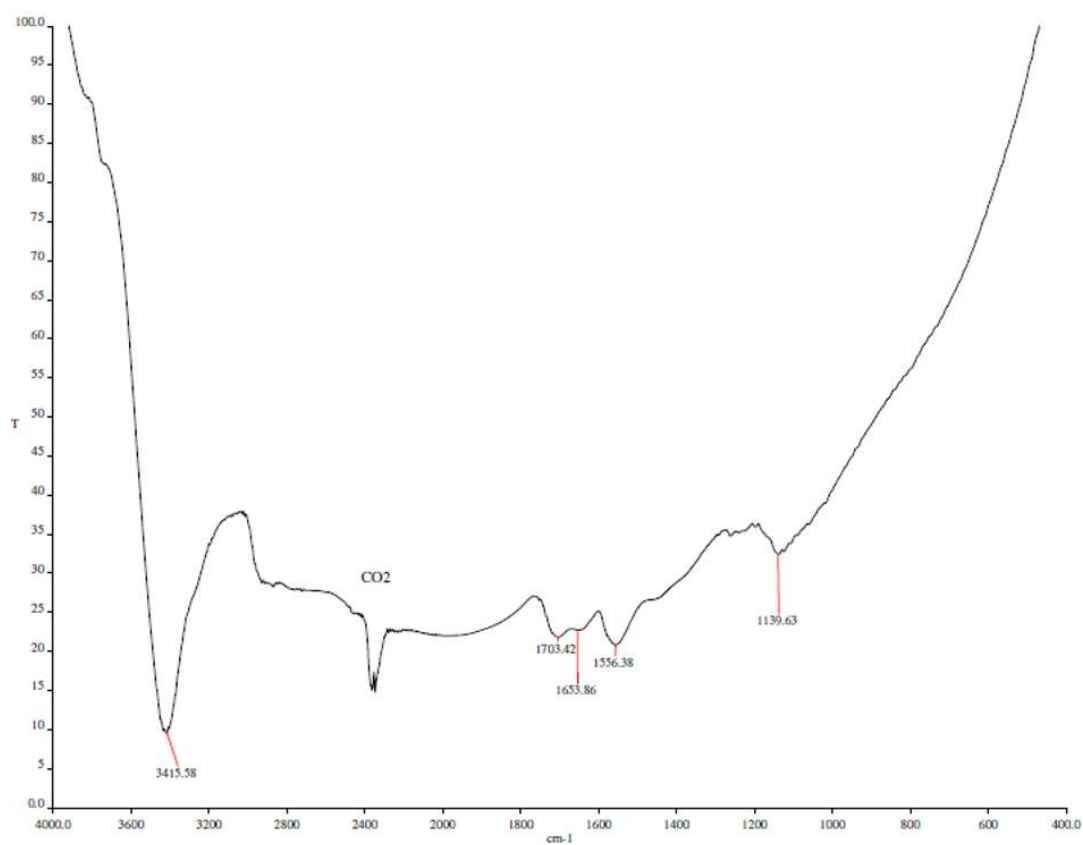


Figure S4. FT-IR spectrum of GO-*g*-poly[DEAEMA]

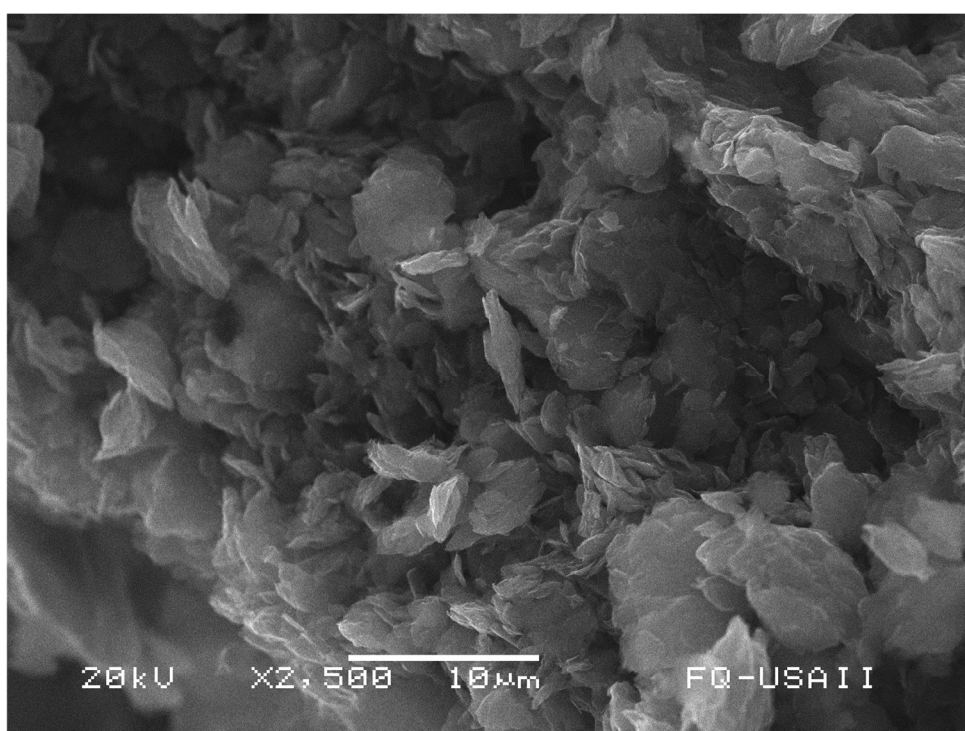
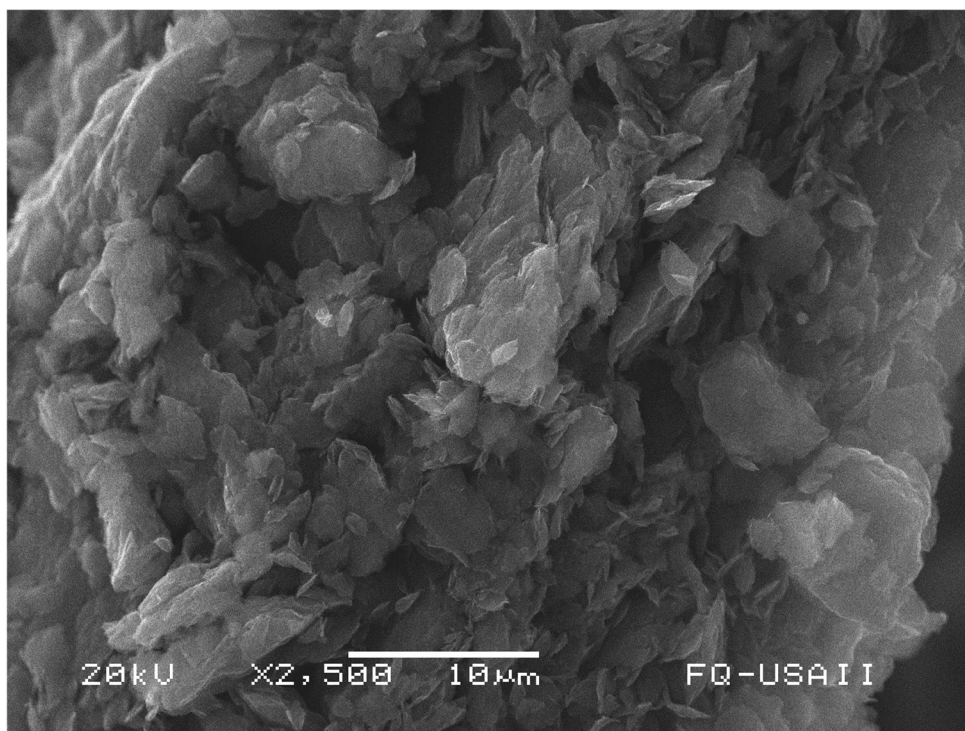


Figure S5. SEM of pristine GO (top) and after synthetic stage I (bottom).

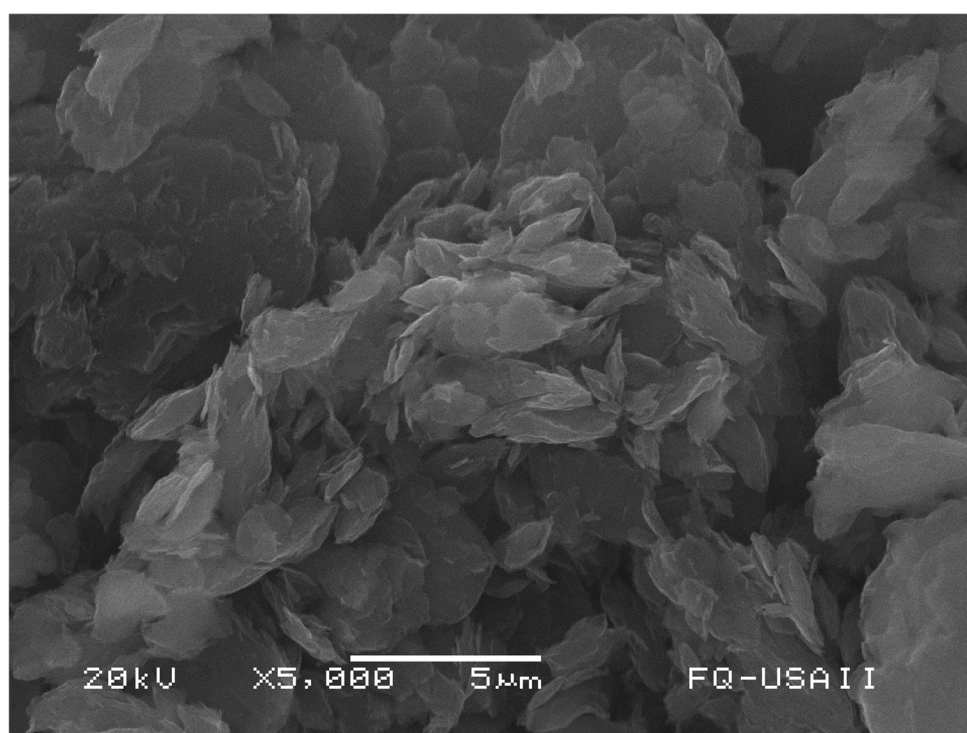
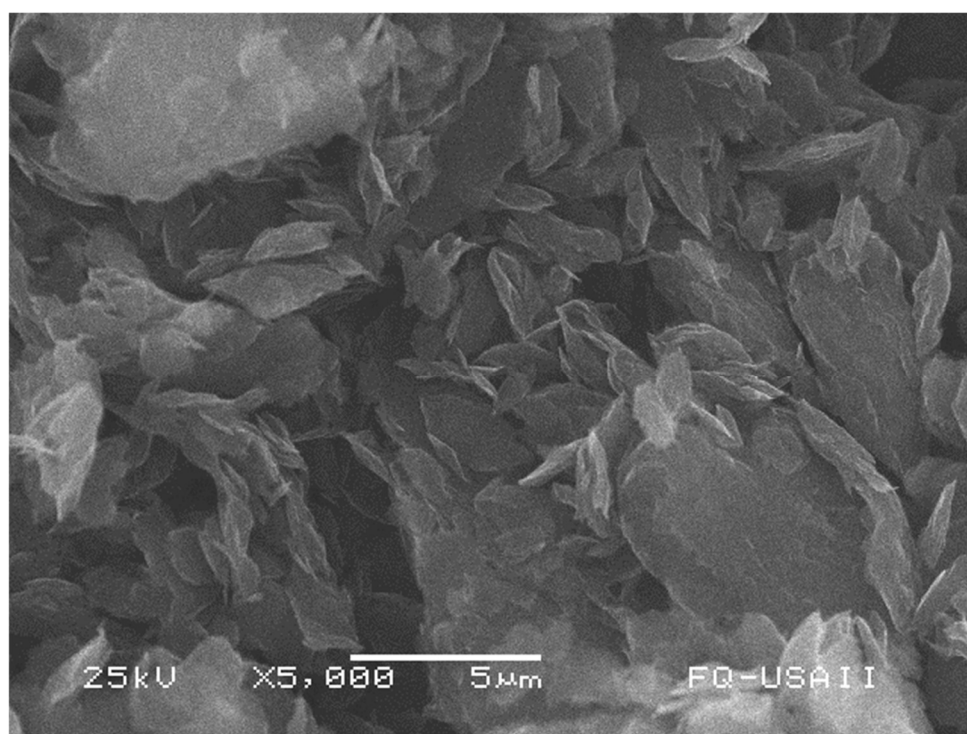


Figure S6. SEM of GO after synthetic stage II (top) and after stage III (bottom).

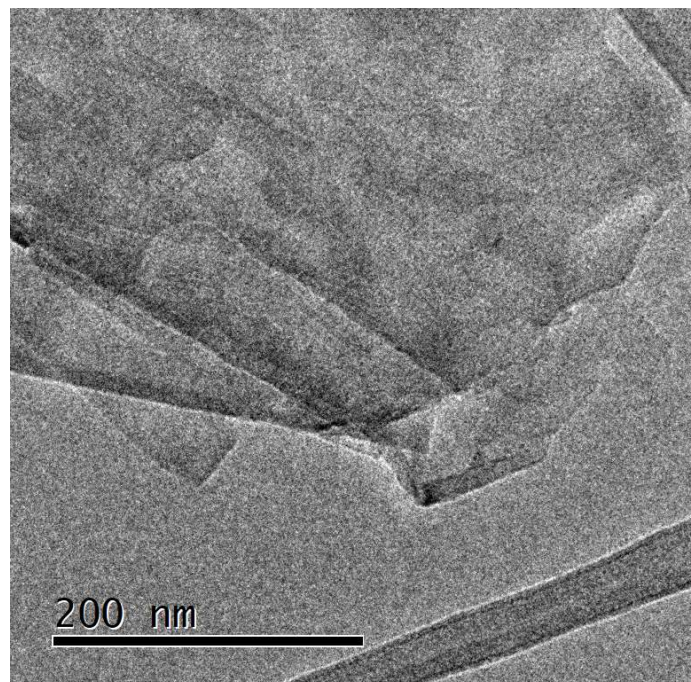


Figure S7. TEM micrograph of GO.

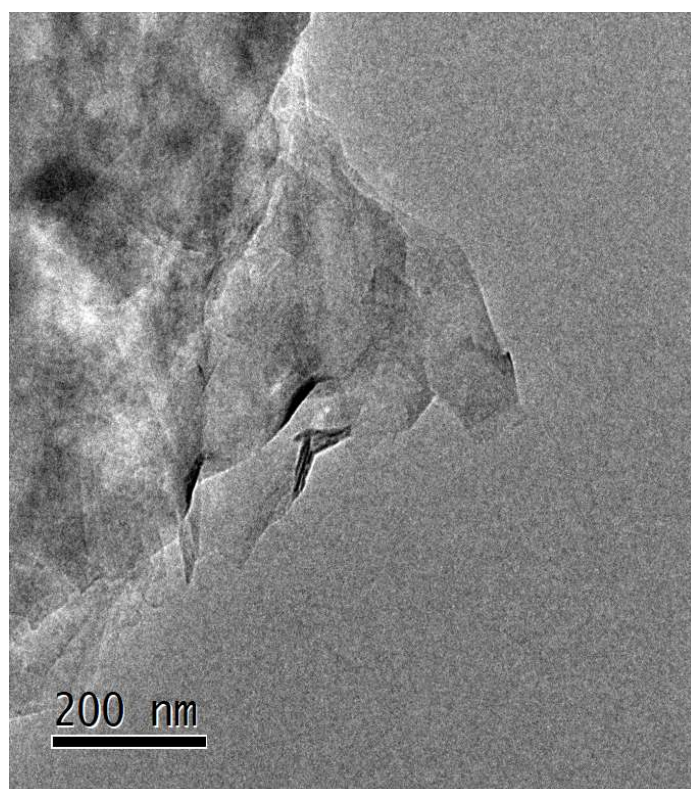


Figure S8. TEM micrograph of GO-*g*-poly[DEAEMA].

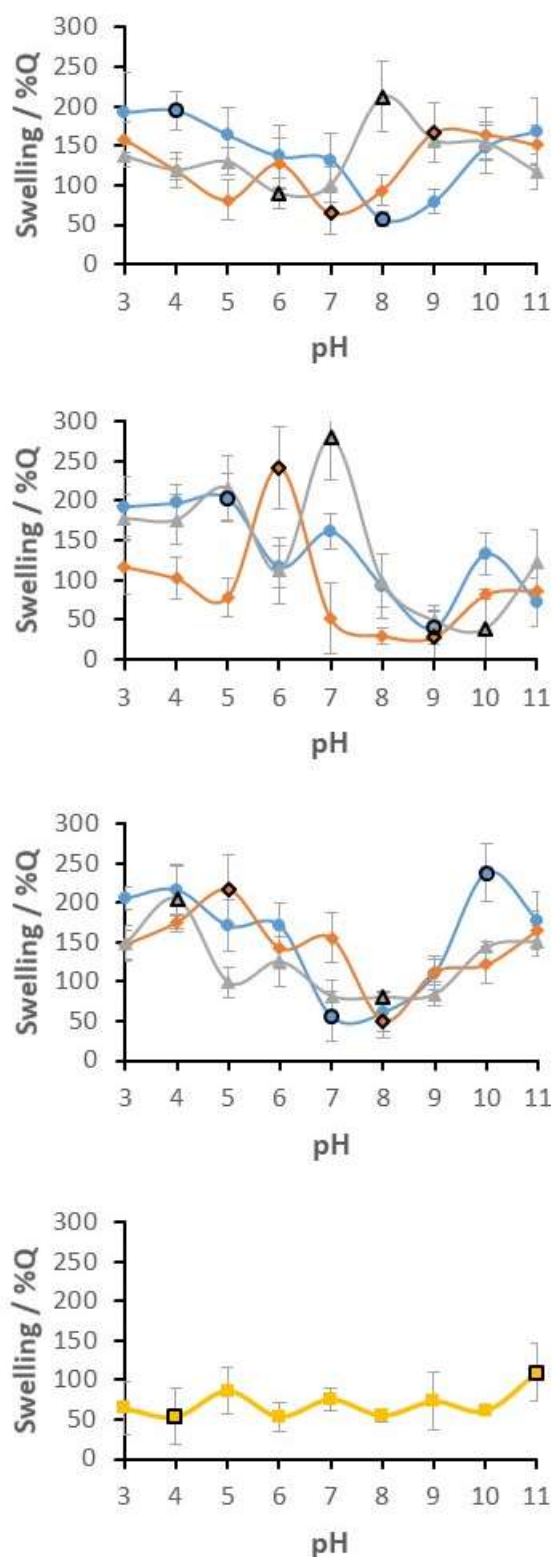


Figure S9. Swelling curves against pH for GO-g-poly[DEAEMA] (top three graphs) and blank (graph at the bottom). For GO-g-poly[DEAEMA], ratios at stage I (EDC:COOH@GO) are 2 mol/mol (first graph), 4 mol/mol (second graph) and 6 mol/mol (third graph); ratios at stage II (AEMA:GO-g-NHS) are 6 mmol/g (blue circles), 12 mmol/g (orange diamonds) and 24 mmol/g (grey triangles). %Q_{min} and %Q_{max} are highlighted in each curve. All the curves are set to the same scale in y axis for comparative purposes. Average values are for $N = 3$, error bars are 1 s.d.