

Supplementary Information

Tough and Highly Stretchable Graphene Oxide/Polyacrylamide Nanocomposite Hydrogels

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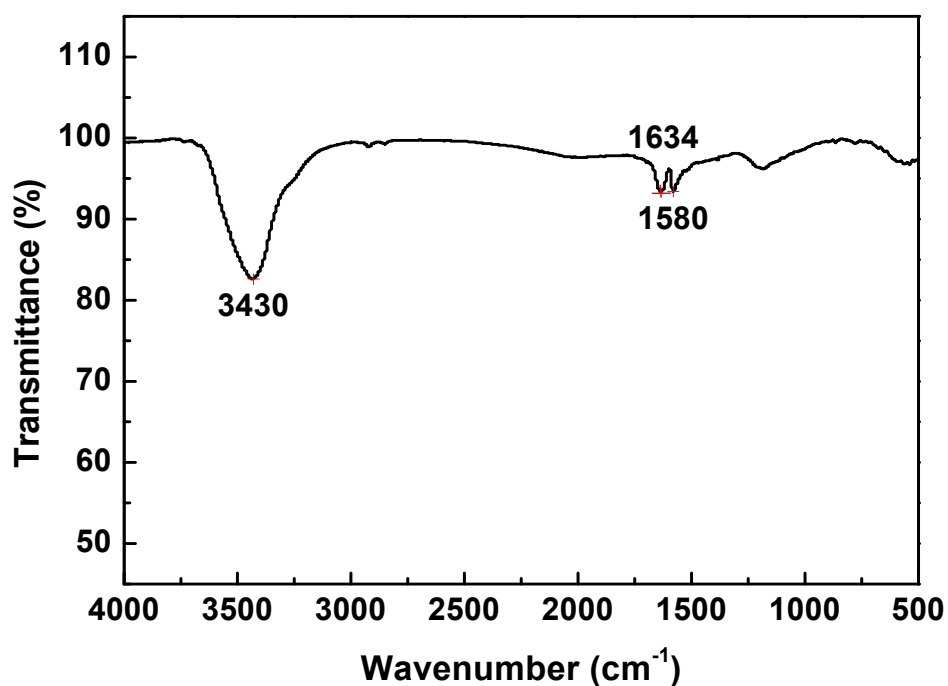


Fig. S1 FT-IR spectrum of natural graphite. The adsorption peak at 1580 cm⁻¹ corresponds to C=C carbonyl stretching. The broad and intense peak at 3430 cm⁻¹ is attributed to H₂O. The peak at 1634 cm⁻¹ is due to the skeletal vibration of graphitic domains or H₂O.

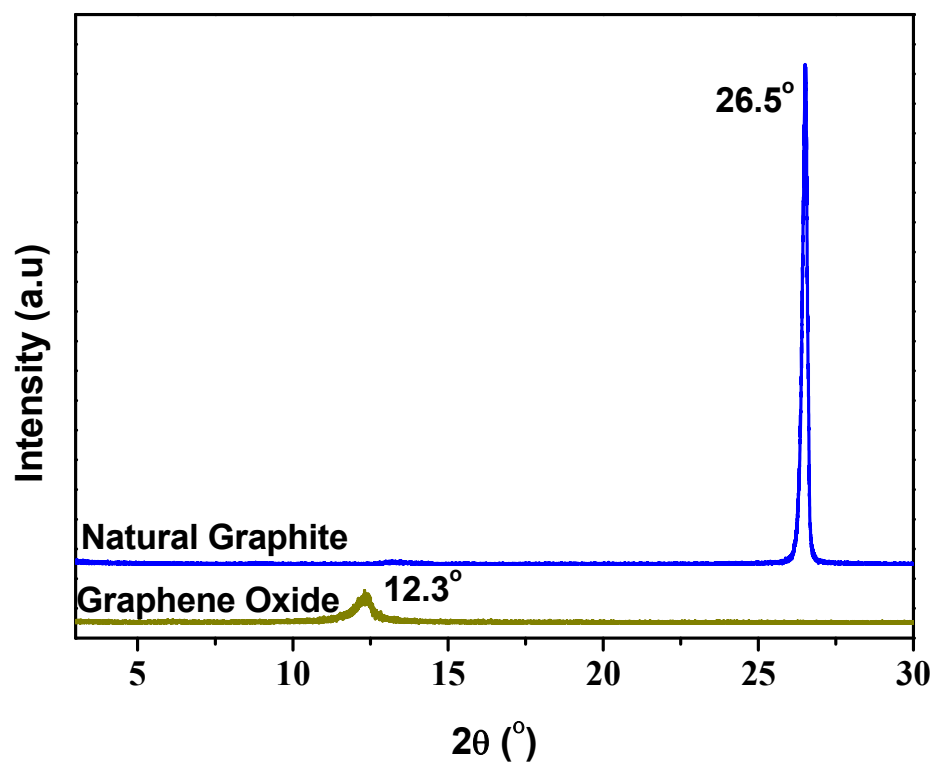


Fig. S2 XRD spectra of natural graphite and graphene oxide. Natural graphite shows a strong diffraction peak at 26.5° , while graphene oxide exhibits a diffraction peak at 12.3° , indicating a complete oxidation of natural graphite.

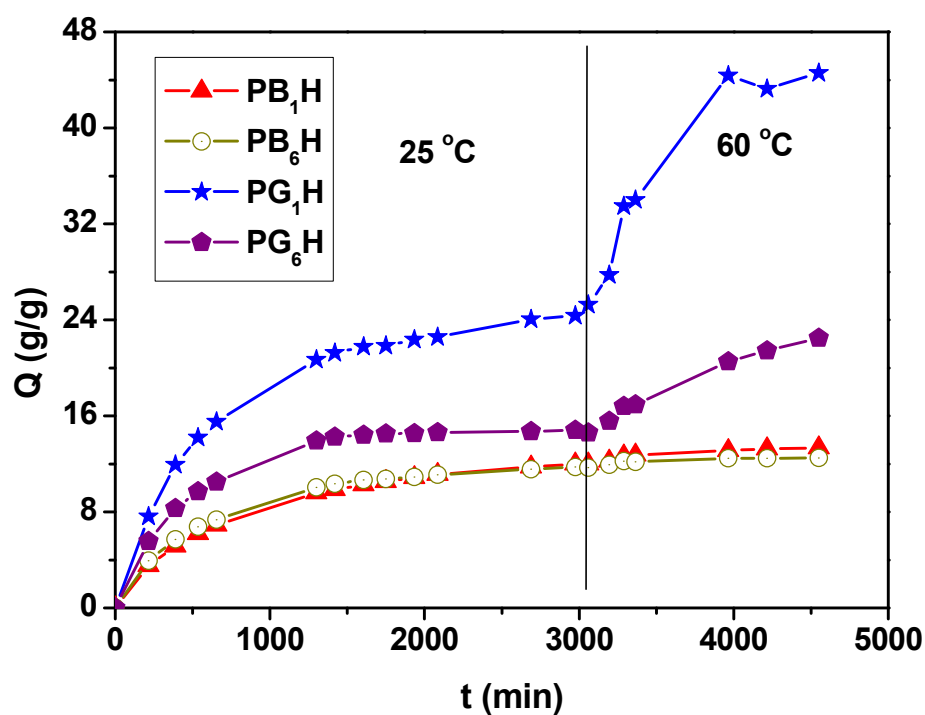


Fig. S3 Swelling ratios of PB_1H , PB_6H , PG_1H and PG_6H swollen in deionized water for 49 h at 25 °C followed by 28 h at 60 °C.