

Supplementary Information

MnO₂ Nanoflowers and Polyaniline Nanoribbons Grown on Hybrid Graphene/Ni 3D Scaffold by *In-situ* Electrochemical Technique for High- performance Asymmetric Supercapacitors

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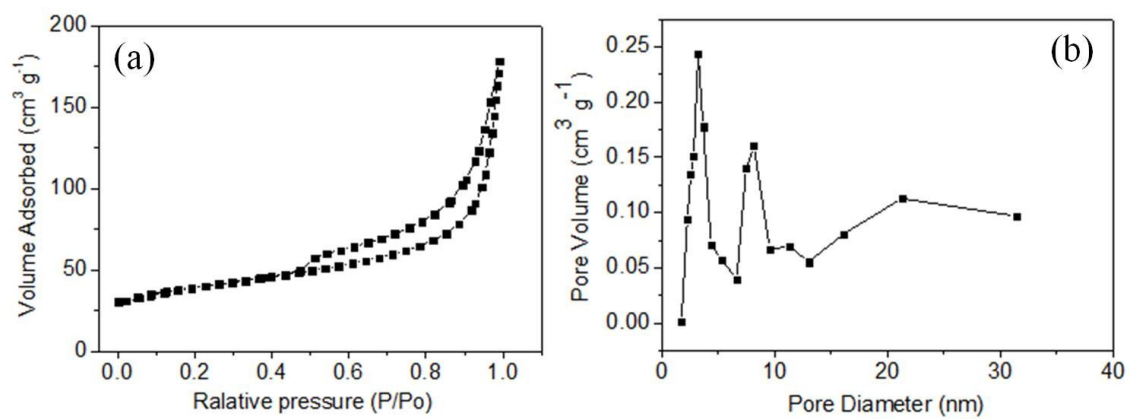


Figure S1. Nitrogen adsorption-desorption isotherm (a) and pore size distribution (b) of the as-prepared GF.

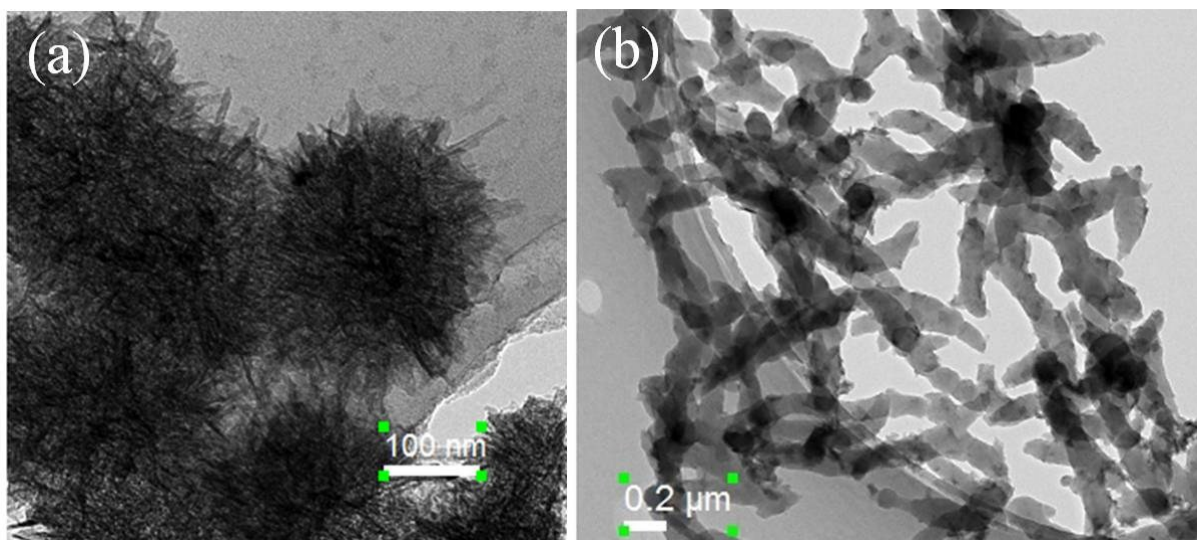


Figure S2. TEM images of MnO₂ (a) and PANI (b) peeled off from Ni foam.

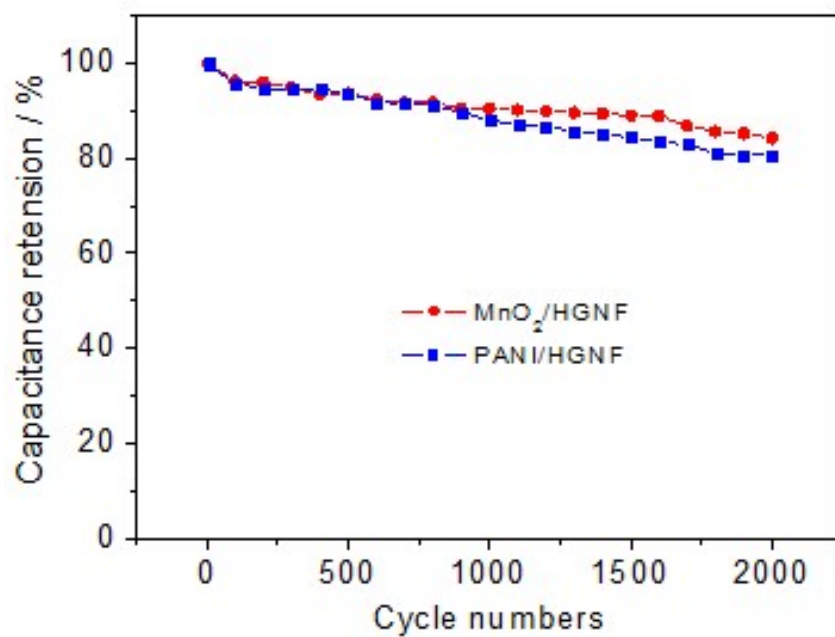


Figure S3. Cycling behaviour of the obtained MnO₂/HGNF and PANI/HGNF electrodes in 1 M Na₂SO₄ solution at a current density of 2 A g⁻¹.

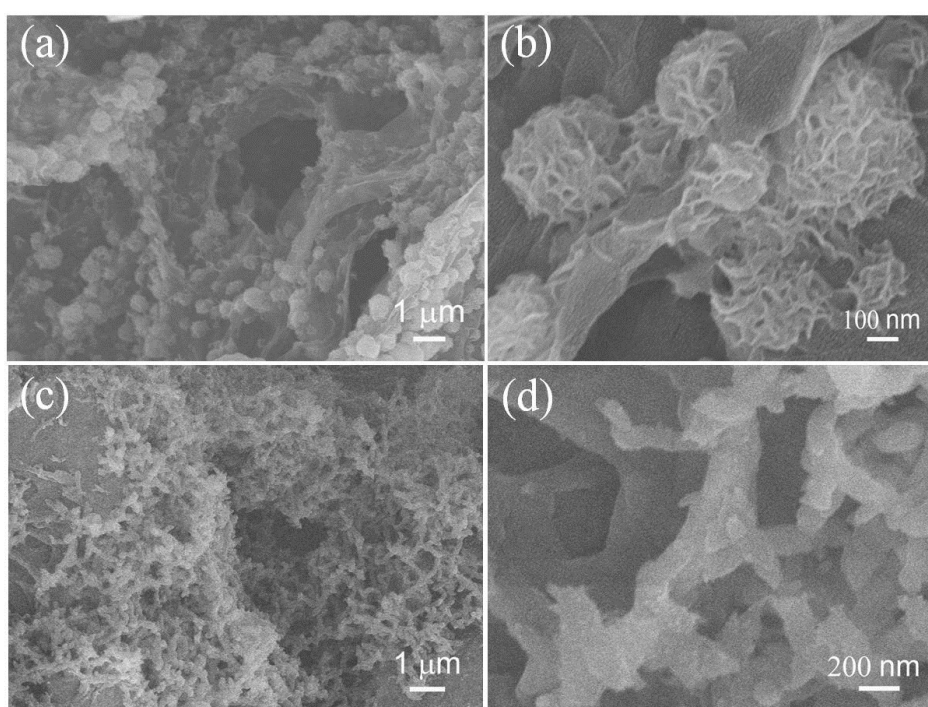


Figure S4. SEM images of MnO₂/HGNF (a,b) and PANI/HGNF (c,d) electrodes in ASC-1 after 2000 cycles at a current density of 2 A g⁻¹.

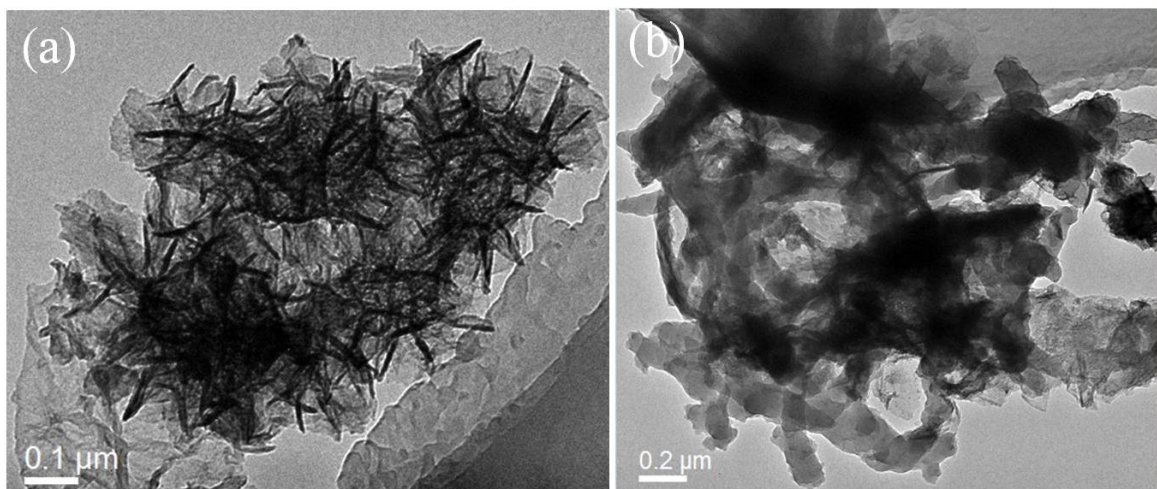


Figure S5. TEM images of MnO₂/HGNF (a,b,) and PANI/HGNF (c,d) in ASC-1 after 2000 cycles at a current density of 2 A g⁻¹.