Supporting Information



Figure S1. TEM images (A-D) of OMCs pyrolysed at 700, 800, 900 and 1000 °C.



Figure S2. TEM images of a typical carbon nano-coil containing iron oxide in the carbon material treated at 900 °C taken in different tilting angles: -20° (A), 0° (B), $+20^{\circ}$ (C), and $+40^{\circ}$ (D). Inset of B is the high resolution TEM image which confirms the graphite structure with the d_{002} spacing of 0.333 nm, in accordance with the XRD results.



Figure S3. Cyclic voltammogram of OMC-800 recorded before cycling measurements in threeelectrode cell at a scan rate of 5 mV/s in 1M H_2SO_4 .

Supporting movies are available from the authors.