Electronic Supplementary Material (ESI) for Inorganic Chemistry Frontiers.

Supporting Information

Mesoporous graphene/carbon frameworks embedded with SnO_2 nanoparticles as a high-performance anode for lithium storage

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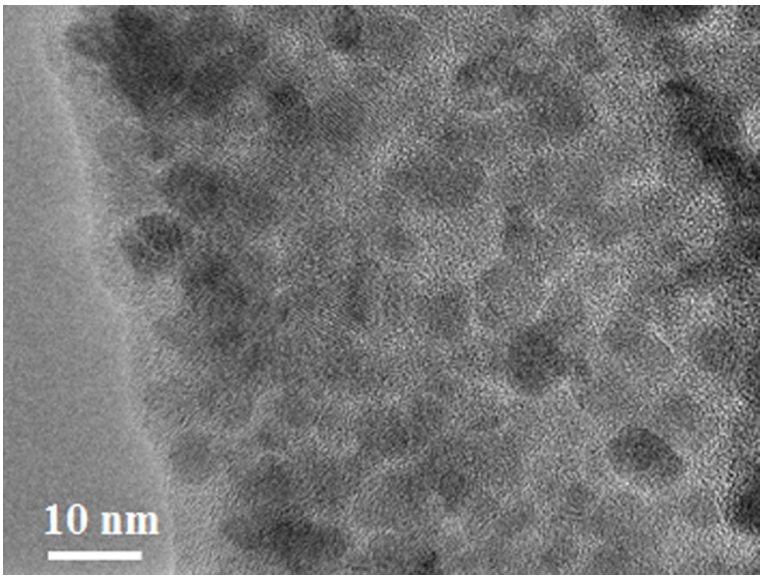

Fig. S1 TEM image of the graphene@Fe_3O_4@C composite

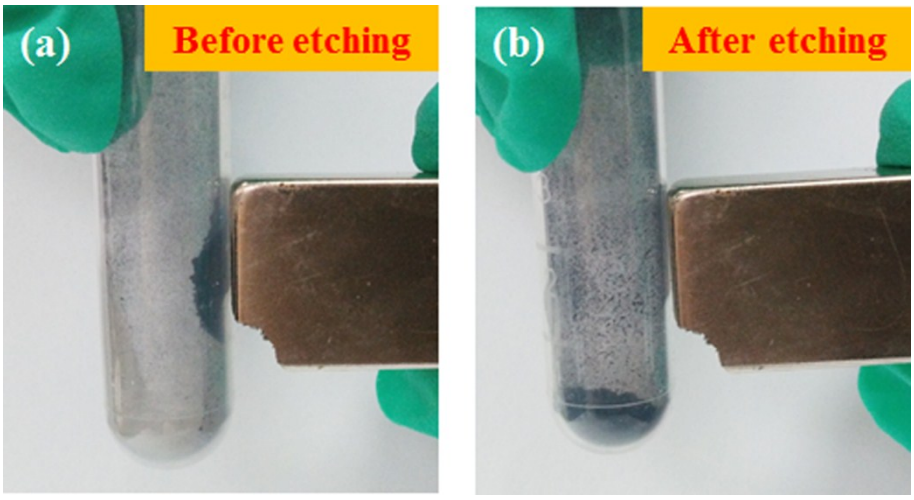

Fig. S2 Photographs of the magnetism change of the graphen@Fe_3O_4@C composite before and after acid etching.

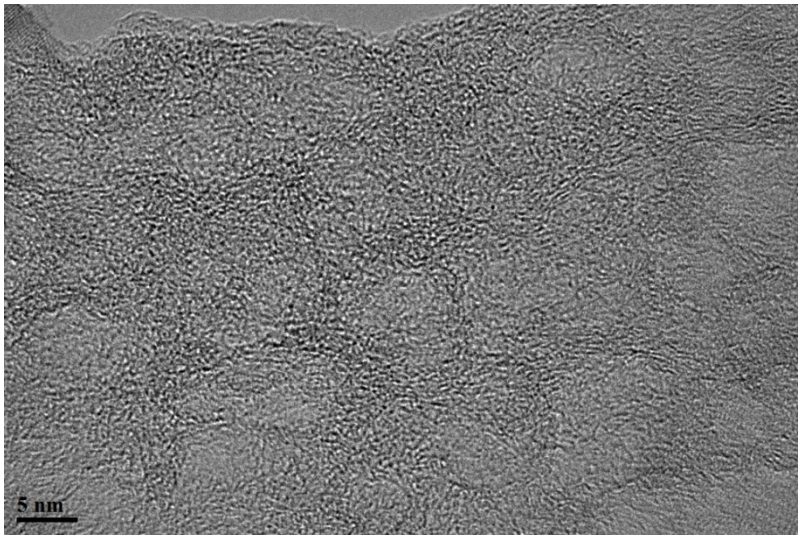

Fig. S3 High resolution TEM image of MCF

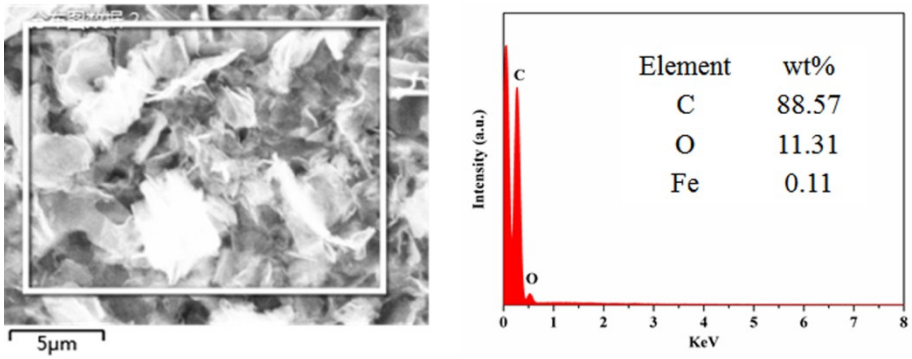

Fig. S4 Energy dispersion X-ray (EDX) spectrum of the graphen@Fe_3O_4@C after acid etching

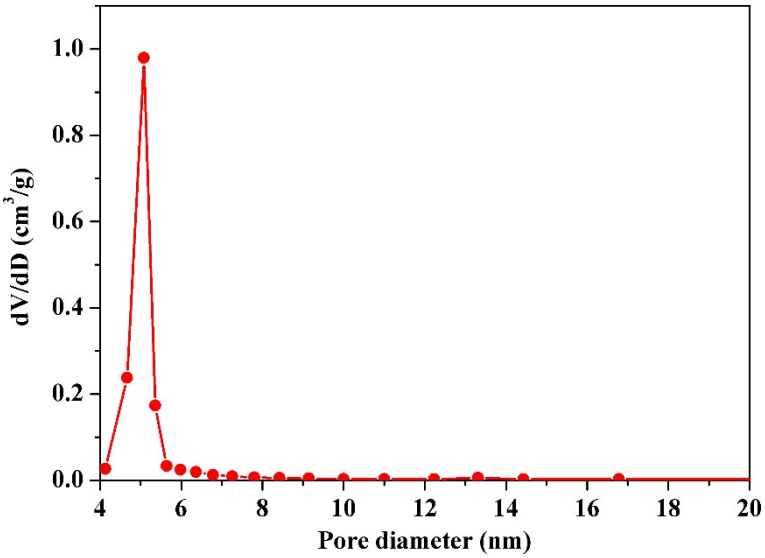

Fig. S5 Pore size distribution curve of MCF

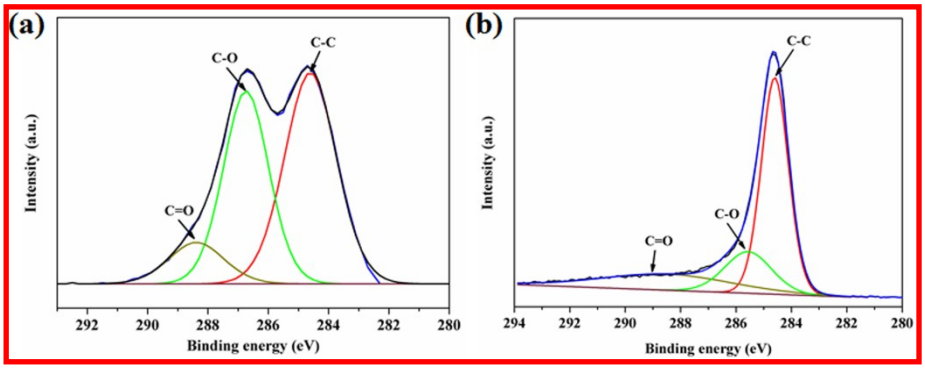

Fig. S6 High-resolution XPS spectra of C 1s of GO (a) and MCF (b).

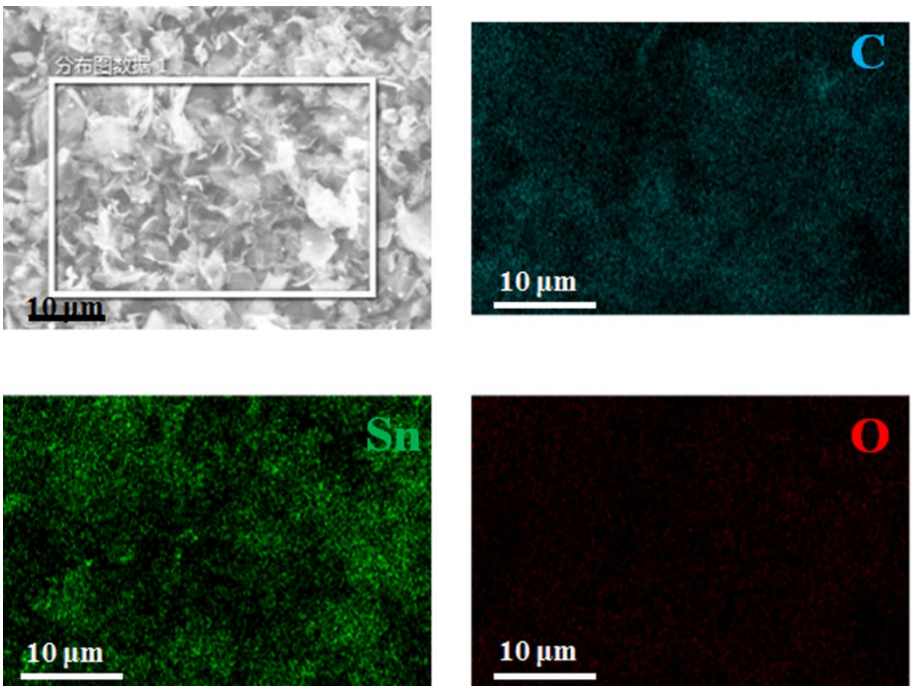

Fig. S7 SEM image of MCF@SnO_2 and corresponding EDS mapping of C, Sn and O elements

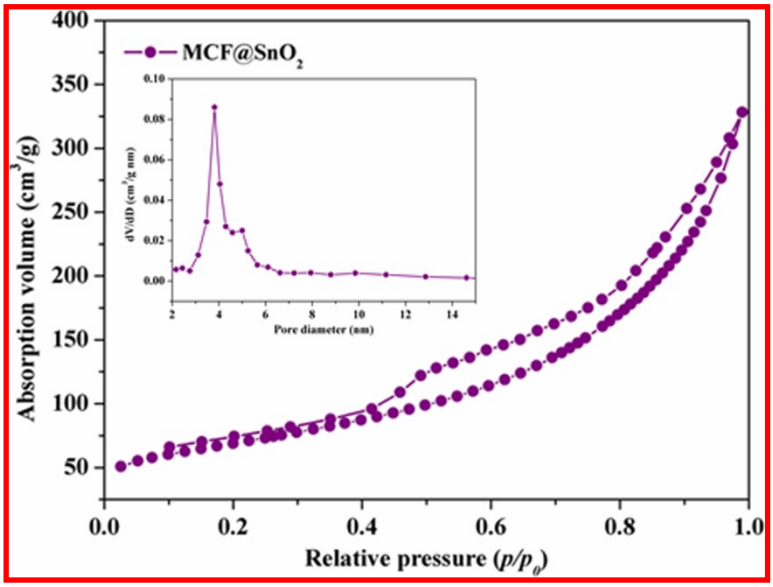

Fig. S8 Nitrogen adsorption/desorption isotherm of MCF@SnO_2, inset shows the corresponding pore size distribution curve.

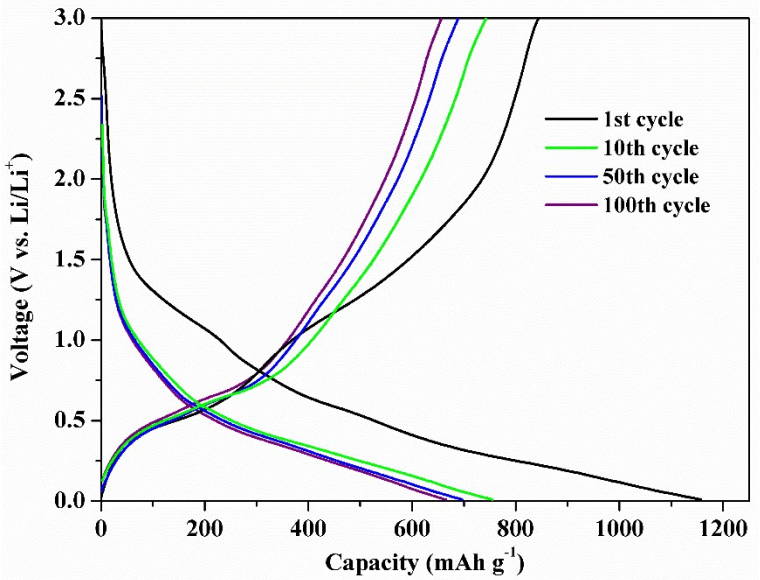

Fig. S9 Discharge-charge profiles for 1st and 50th and 100th cycle of MCF@SnO_2 at a current density of 1 A g^{-1}.

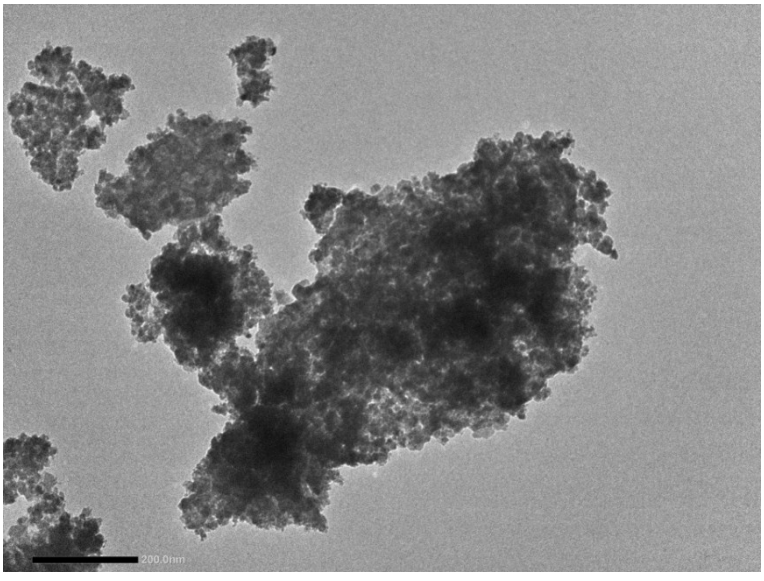

Fig. S10 TEM image of the synthesized SnO_2 nanoparticles

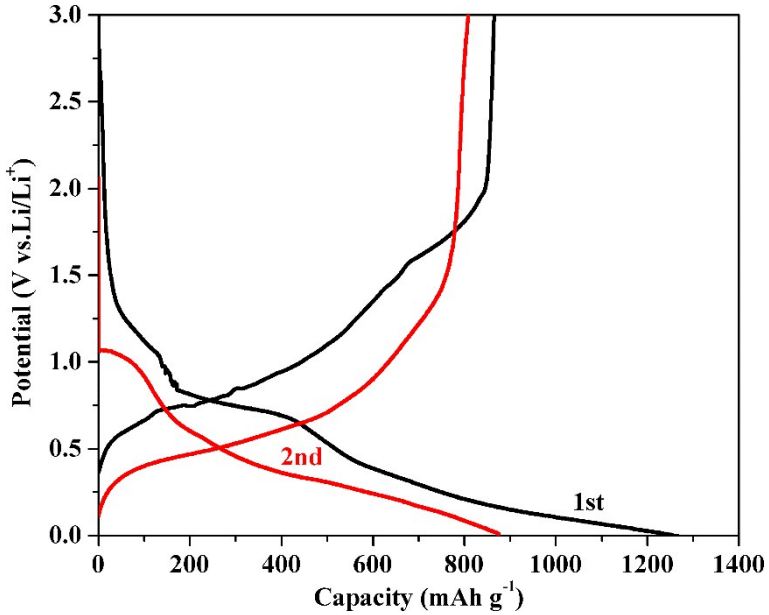

Fig. S11 Discharge-charge profiles for 1st and 2nd cycle of SnO_2 NPs.

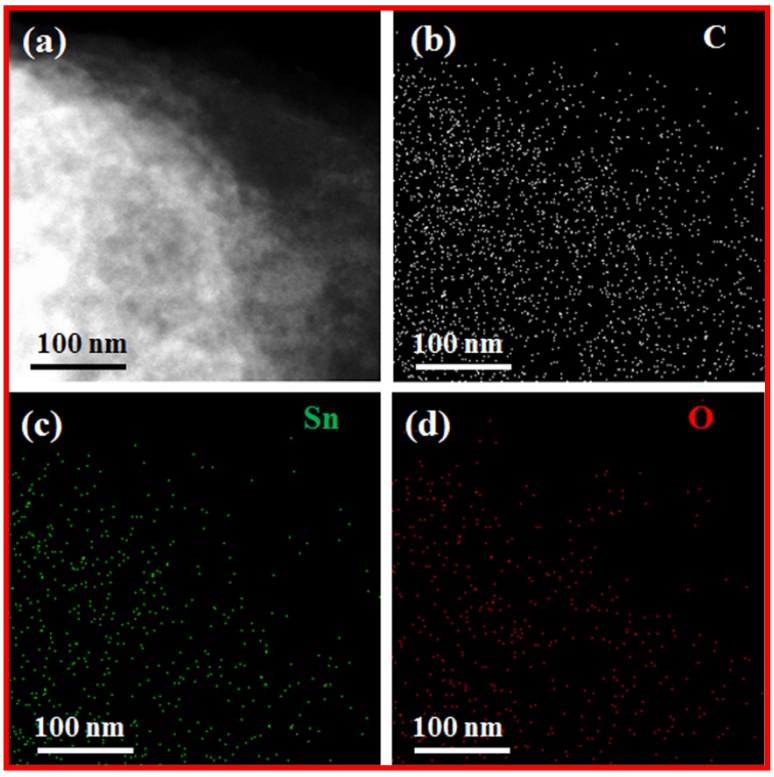

Fig. S12 STEM image of MCF@SnO_2 electrode after 200 cycles at 1 A g^{-1} (a) and the corresponding EDX elemental mapping of C, Sn and O at the region in (a), respectively (b-d).