Electronic Supplementary Material (ESI) for Nanoscale.

Supporting information

Indirect Growth of Mesoporous Bi@C Core-shell Nanowires for Enhanced Lithium-Ion Storage

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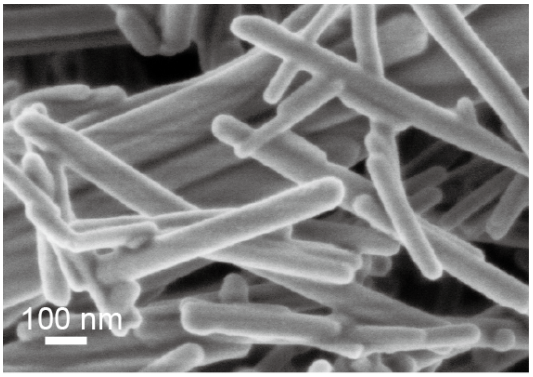

Fig. S1 SEM images of Bi_2S_3@GCP nanowires before calcination.

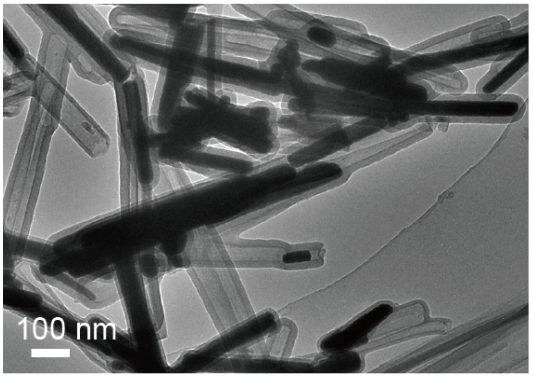

Fig. S2 TEM images of Bi@C core-shell NWs exhibiting a relatively larger area.

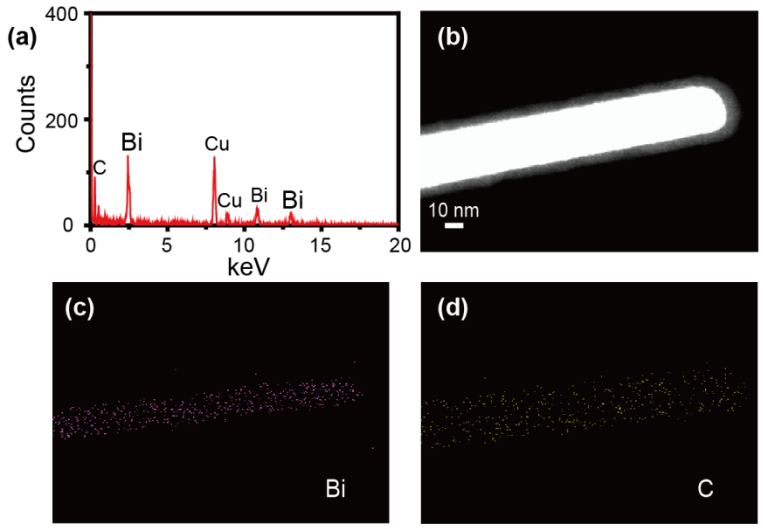

Fig. S3 (a) EDX spectrum of Bi@C core-shell nanowires ; (b) STEM image of Bi@C core-shell nanowires; (c, d) Corresponding elemental maping of Bi and C elements in Bi@C core-shell nanowires, respectively.

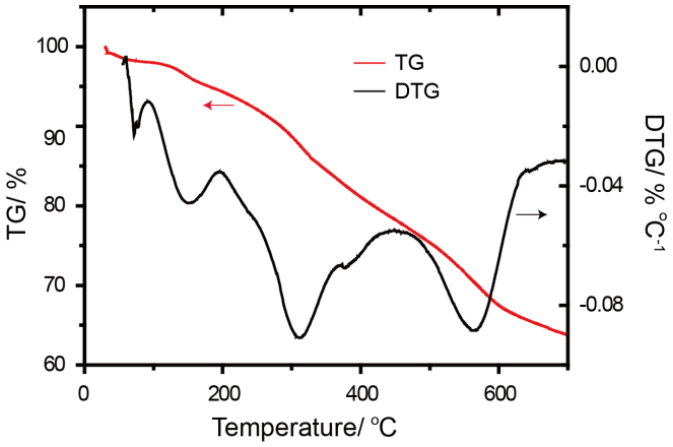

Fig. S4 Thermogravimetric results of Bi_2S_3@GCP nanowires under N_2 atmosphere.

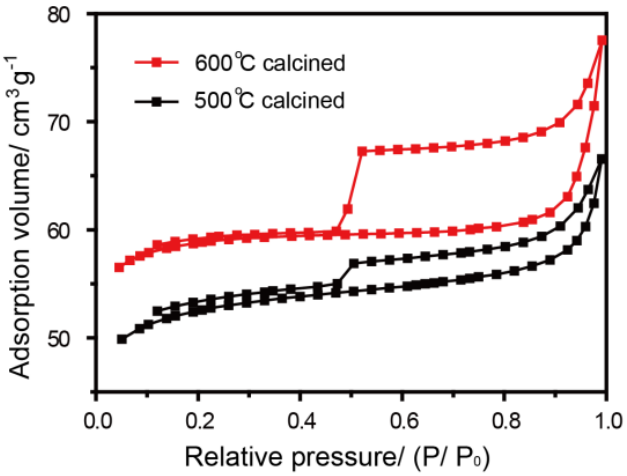

Fig. S5 N_2 sorption isotherms of the Bi_2S_3@GCP nanowires calcined at 500 and 600 °C, respectively.

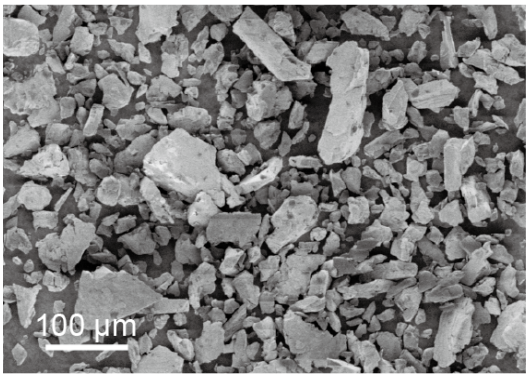

Fig. S6 SEM images of commercial Bi microparticles.

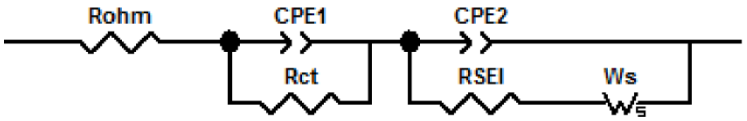

Fig. S7 Equivalent circuit model. R_{ohm} denotes the internal resistance of the test cell. R_{ct} is related to the charge-transfer resistance. R_{SEI} represents the interphase resistance. CPE represents the constant phase element. W_s represents the Warburg impedance.

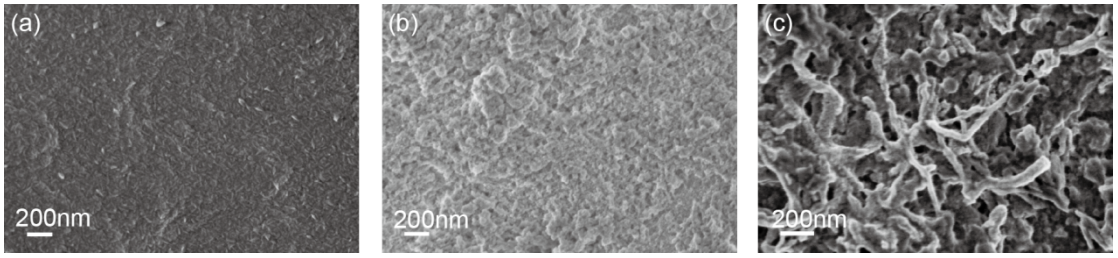

Fig. S8 SEM images of electrodes fabricated from (a) commercial Bi microparticles, (b) Bi_2S_3@C core-shell nanowires, and (c) Bi@C core-shell nanowires collected after 10 charge/discharge cycles.