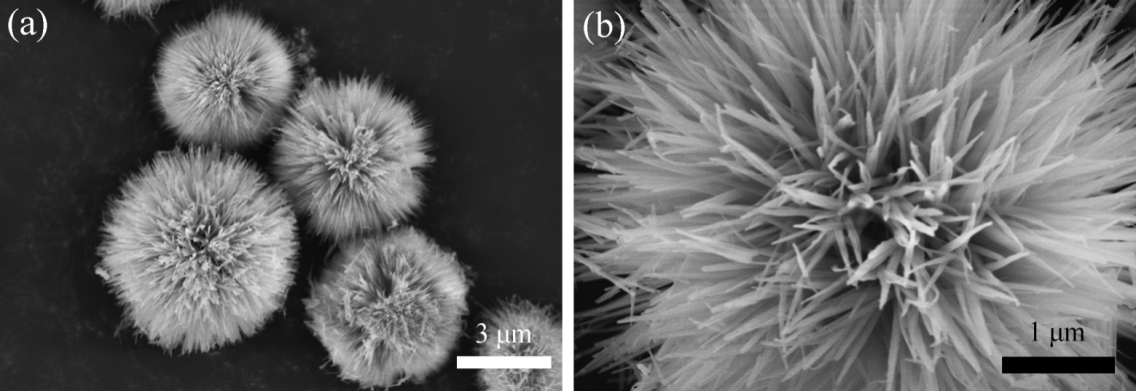
**Sea-urchin-like architectures and nanowire arrays of cobalt−manganese sulfides for superior electrochemical energy storage performance**

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**Fig. S1.** SEM images of the Co−Mn precursor



**Fig. S2** Electrochemical tests in a three-electrode system: (a) CV and (b) GCD curves of the sea-urchin-like Co−Mn sulfide at different scan rates and current densities, respectively; (c) CV and (d) GCD curves of the sea-urchin-like Co−Mn oxide at different scan rates and current densities, respectively; (e) CV and (f) GCD curves of Co−Mn oxide arrays on Ni foam at different scan rates and current densities, respectively.



**Fig. S3** CV curves at 5 mV s-1 of Ni foam supported MnCo2S4 array sample and pure Ni foam.