Electronic Supplementary Material (ESI) for CrystEngComm.

Supporting Information

Neuron-like Hierarchical Manganese sulfide@Cu_2S Core/shell Arrays on Ni Foam as An Advanced Electrode for Asymmetric Supercapacitor

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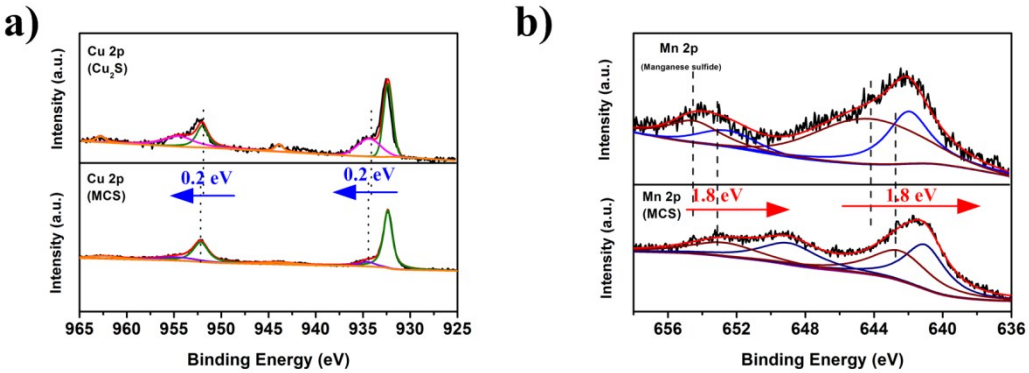

Figure S1. XPS spectra with peak fitting analysis for a) Cu 2p of Cu_2S and MCS. b) Mn 2p of manganese sulfide and MCS, respectively.

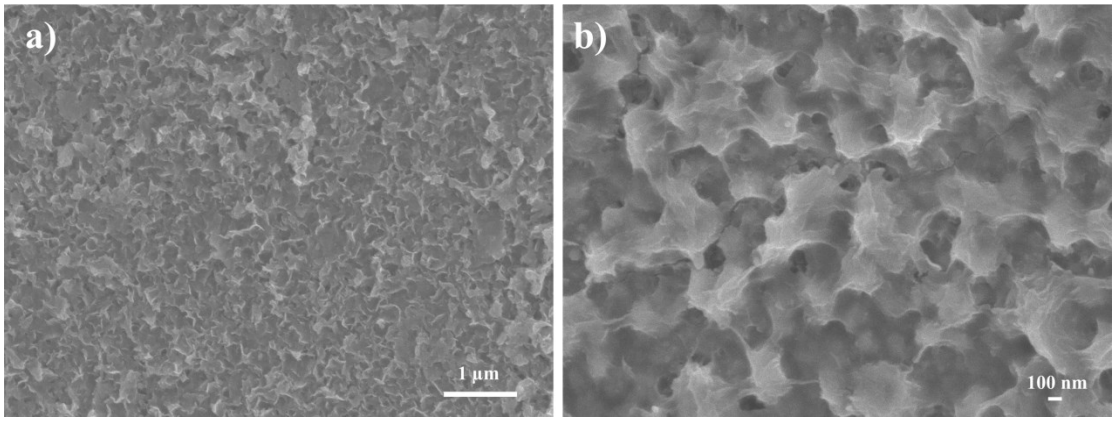

Figure S2. a) SEM image of the as prepared Ni Foam containing precursor. b) HRSEM image of the as prepared MCS on Ni foam.

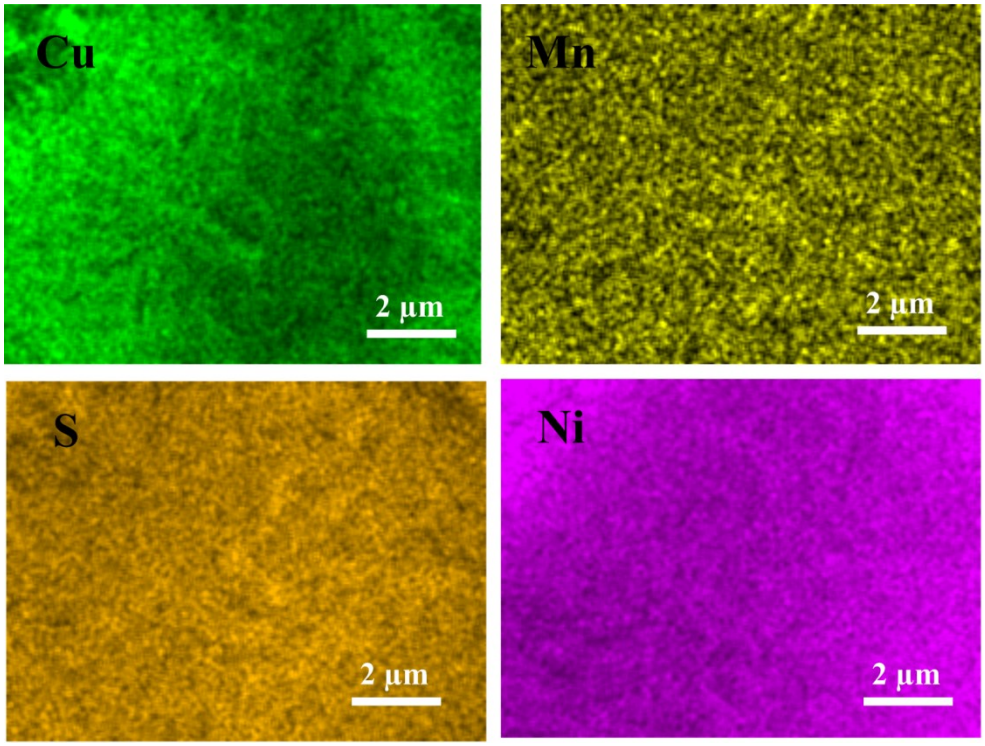

Figure S3. EDS-mapping of different elements. a) Cu b) Mn c) S d) Ni.

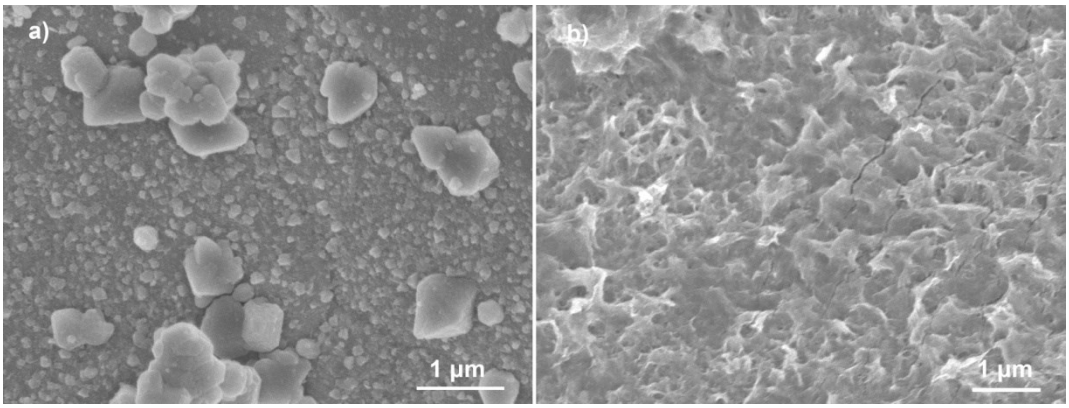

Figure S4. FE-SEM images of a) MS, b) CS.

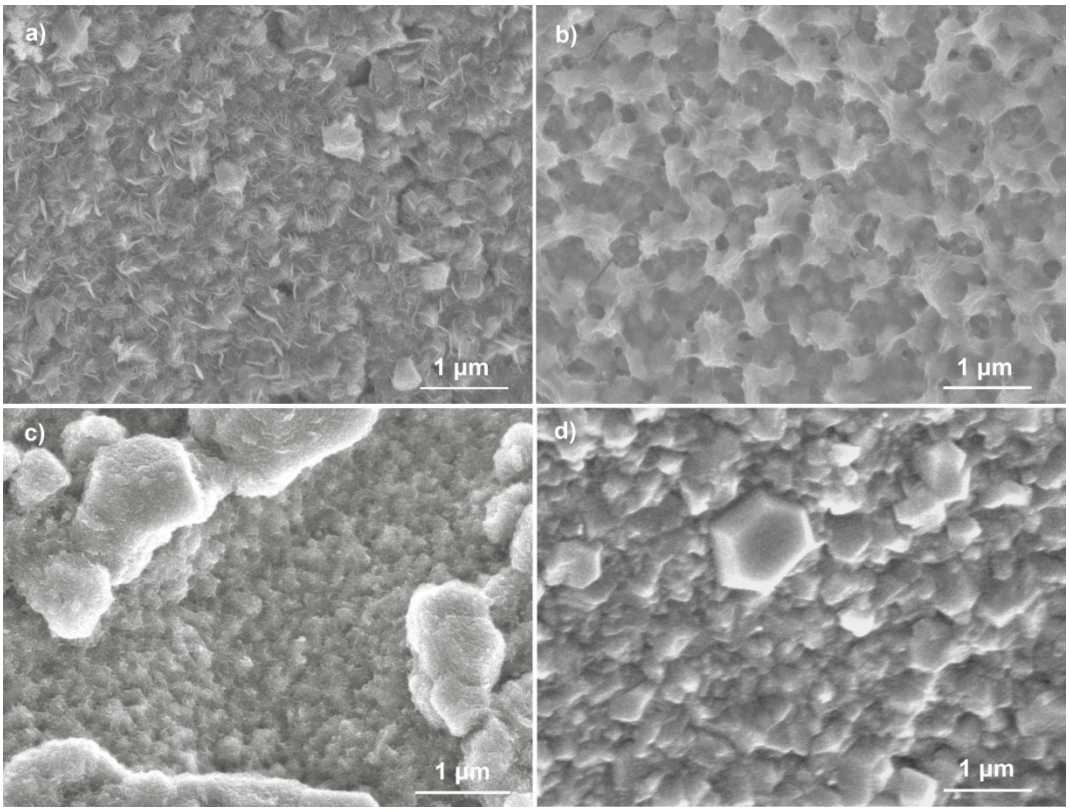

Figure S5. FE-SEM images of MCS on Ni foam with different temperature of sulfidation process: a) 85, b) 95, c) 110 and d) 140 °C.

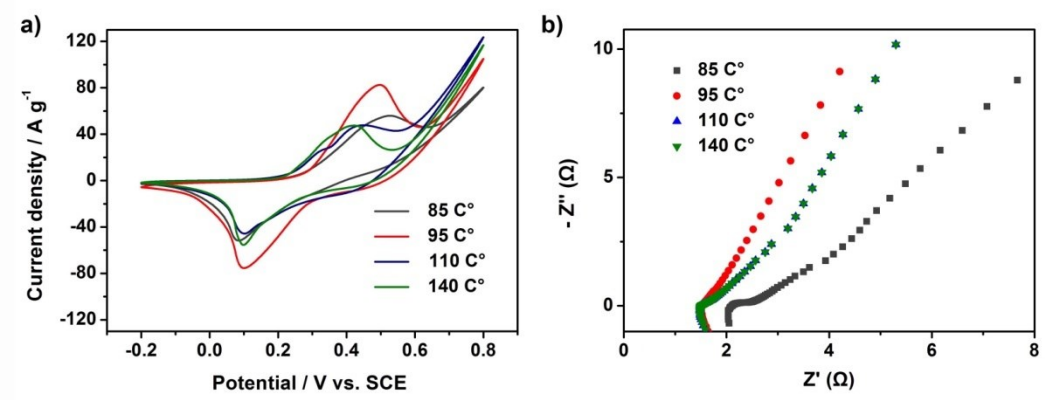

Figure S6. a) CV curves of the MCS with different temperature of sulfidation process, and b) corresponding EIS spectras.

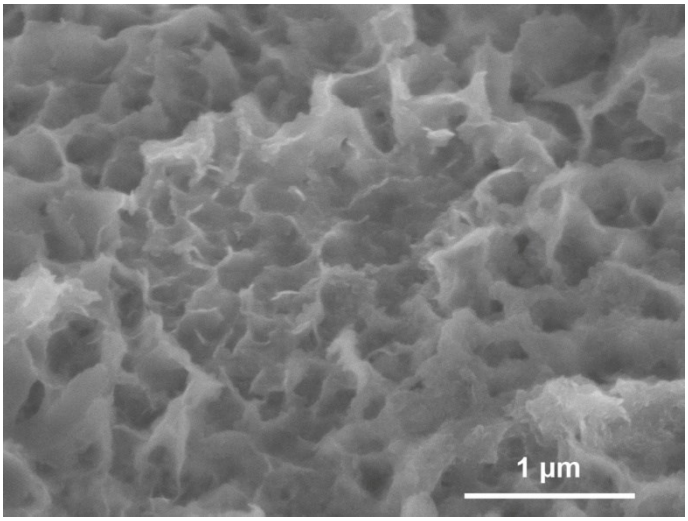

Figure S7. FE-SEM images of morphology of the MCS after 2000 charge–discharge cycles.

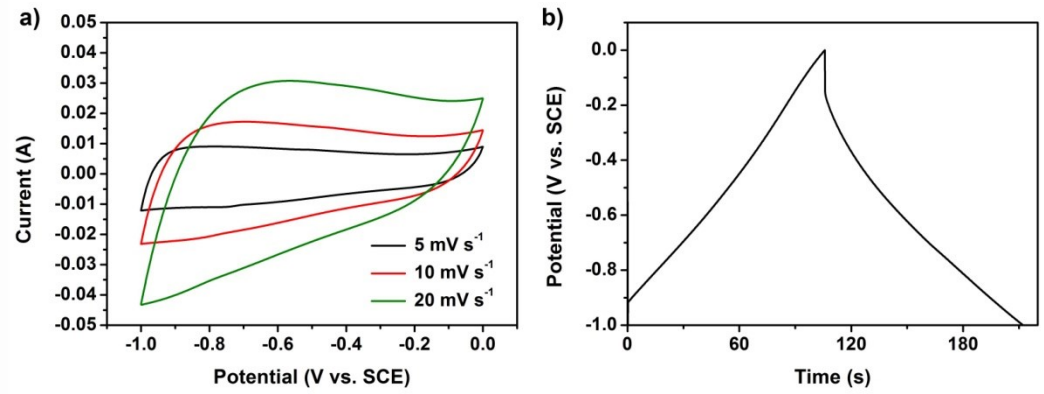

Figure S8. a) CV curves at the scan rates 5, 10 and 20 mv s^{-1}, and b) Galvanostatic charge-discharge curves at a current density of 2 A g^{-1} for AC.

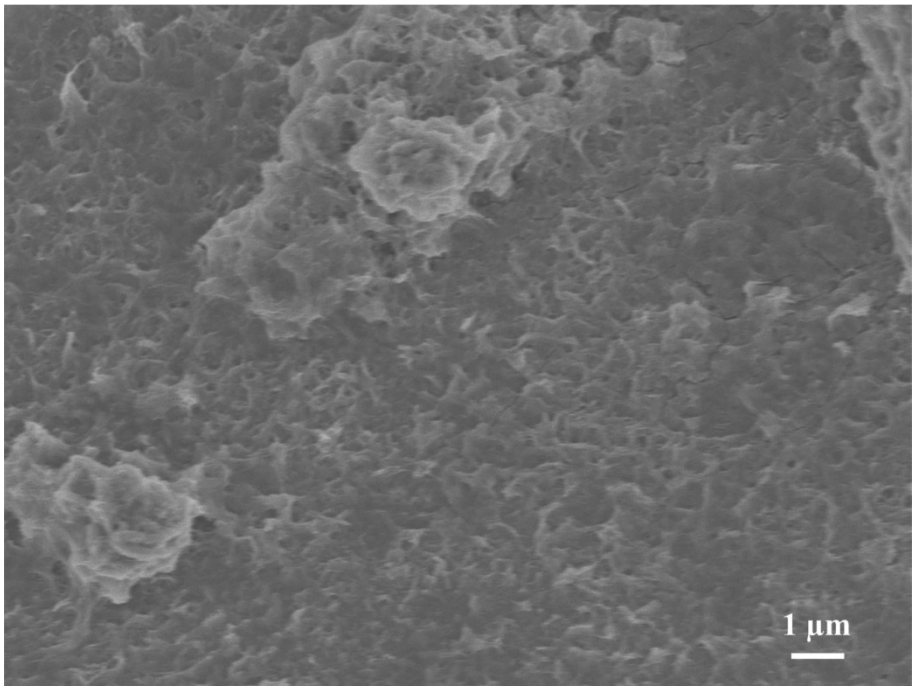

Figure S9. FE-SEM images of morphology of the MCS after 15000 charge–discharge cycles.