Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A.

Supporting Information

Novel carbon channels from loofah sponge for construction of metal sulfide@carbon composites with robust electrochemical energy storage

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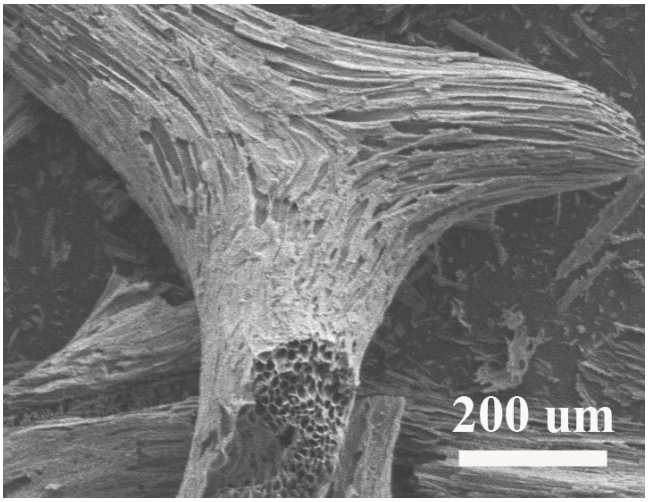

Figure S1. SEM image of pristine loofah sponge fibre.

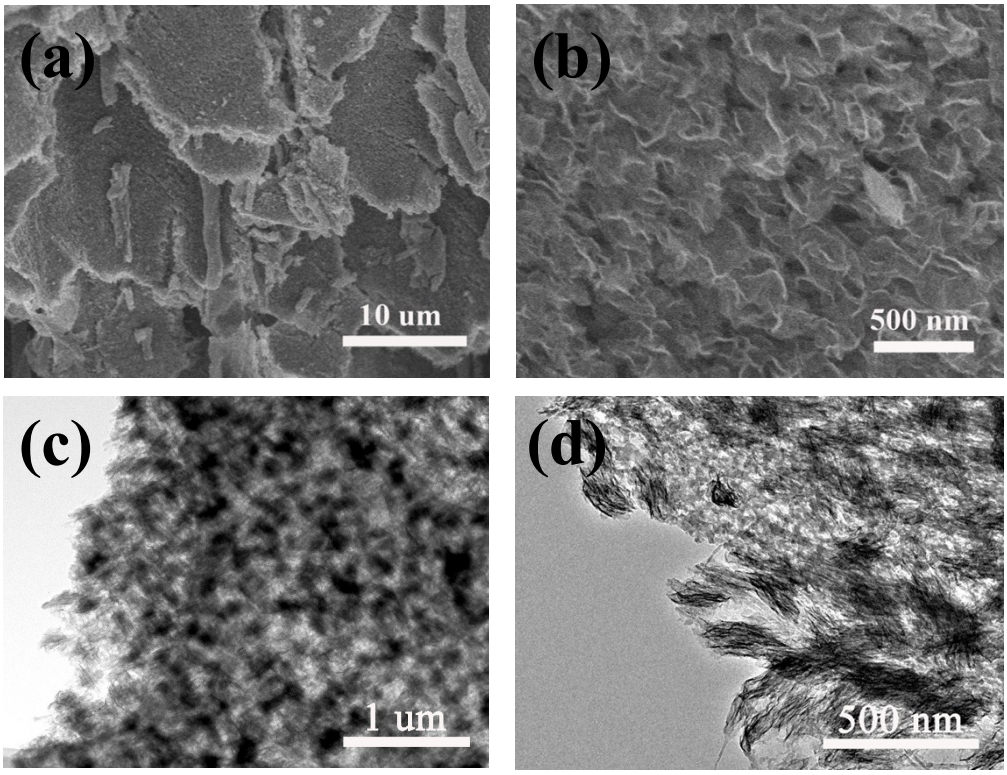

Figure S2. SEM (a-b) and TEM (c-d) images of LSDCM/MoS_2.

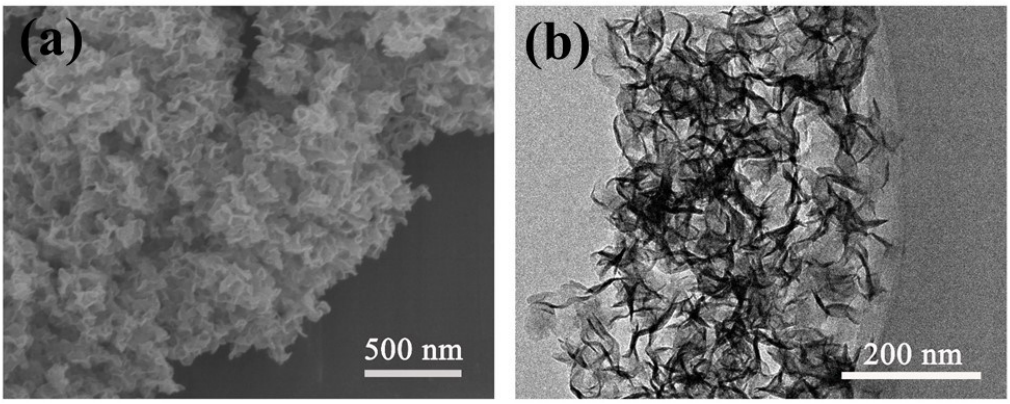

Figure S3. SEM (a) and TEM (b) images of pristine MoS_2.

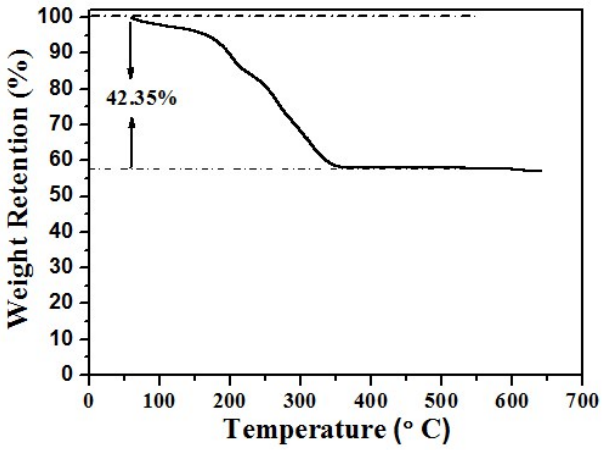

Figure S4. TGA curve of LSDCM/MoS_2/N-C composite

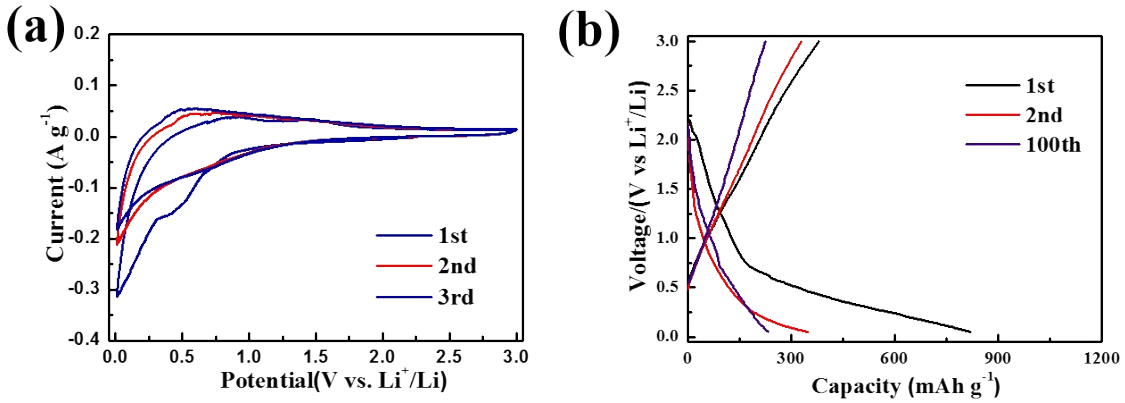

Figure S5. Electrochemical performance of LSDCM used in LIBs: (a) CV curves at a scan rate of 0.1 mV s^{-1} between 0.01 and 3.0 V and (b) Galvanostatic discharge/charge profiles at 200 mA g^{-1}.

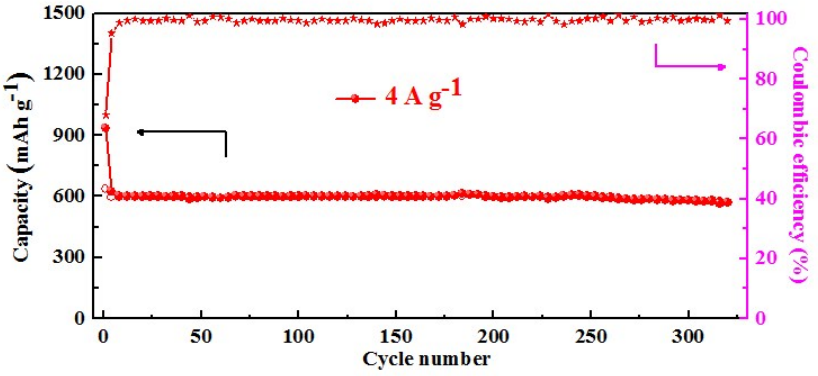

Figure S6. Cycling stability of LSDCM/MoS_2/N-C for LIBs at a high current density of 4 A g^{-1}

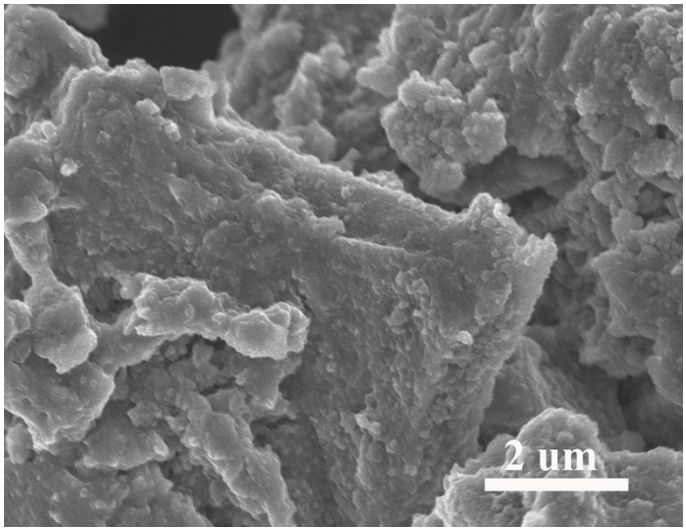

Figure S7. A SEM image of LSDCM/MoS_2/N-C after 50 cycles.

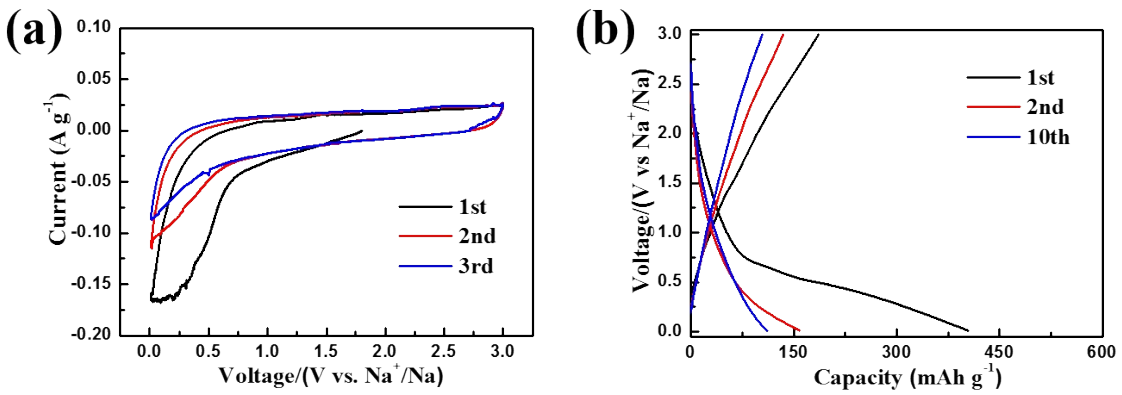

Figure S8. Electrochemical performance of LSDCM for SIBs: (a) CV curves at a scan rate of 0.1 mV s^{-1} between 0.01 and 3.0 V (vs. Na^+/Na) and (b) Galvanostatic discharge-charge profiles at 200 mA g^{-1}

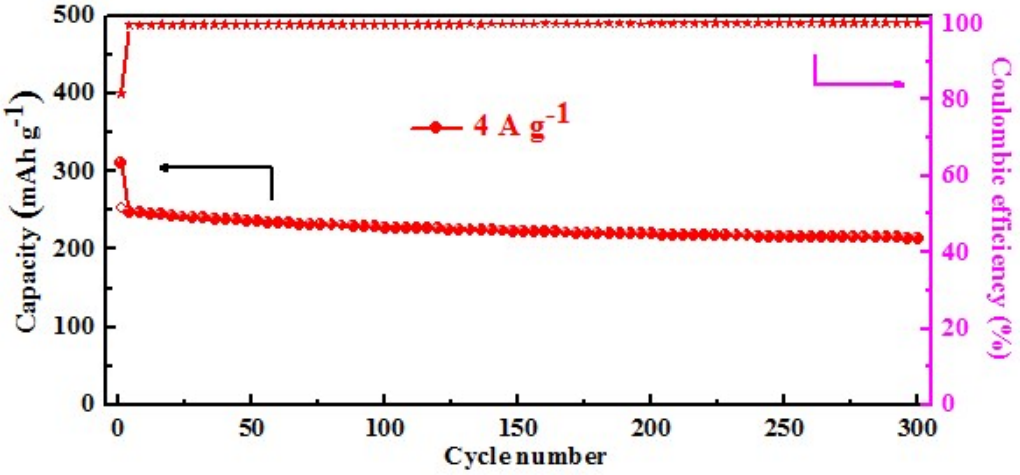

Figure S9. Cycling stability of LSDCM/MoS_2/N-C for SIBs at a high current density of 4 A g^{-1}

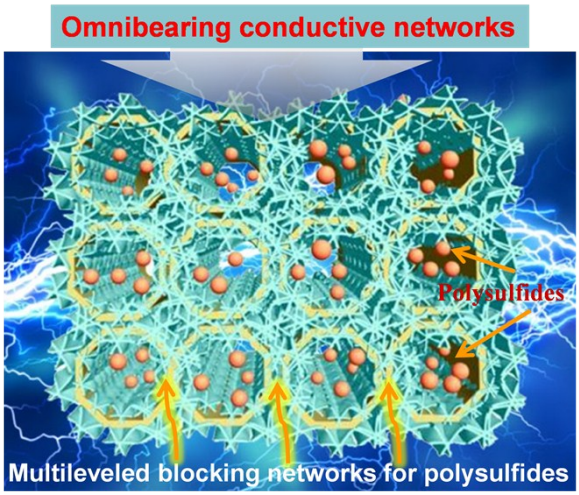

Figure S10. Schematic illustration of advantages for lithium or sodium storage.