Supporting Information

High-capacity and long-life lithium storage boosted by pseudocapacitive in three-dimensional MnO-Cu-CNT/graphene anode

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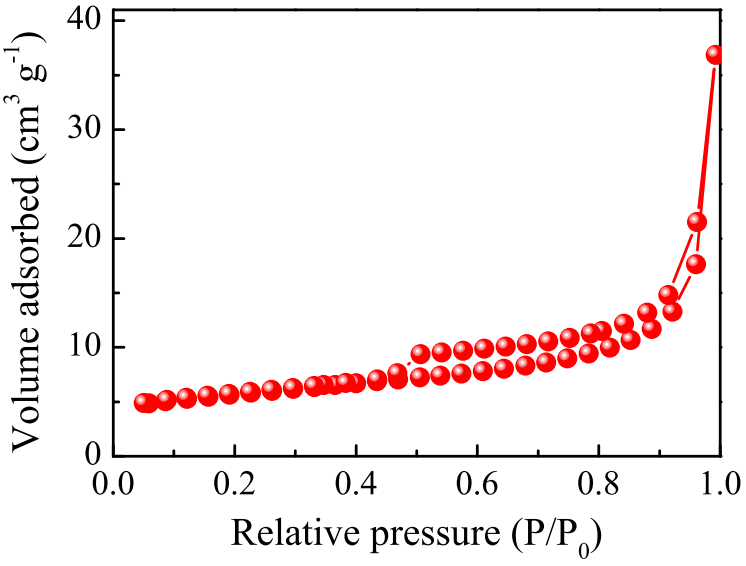

Fig. S 1: N_2 adsorption-desorption isotherms of the MnO-Cu-G composite.

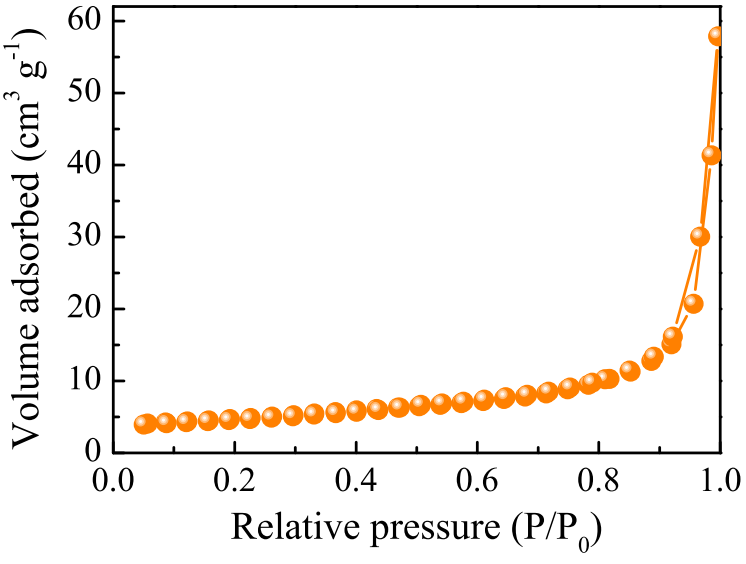

Fig. S 2: N_2 adsorption-desorption isotherms of the MnO-Cu-CNT composite.

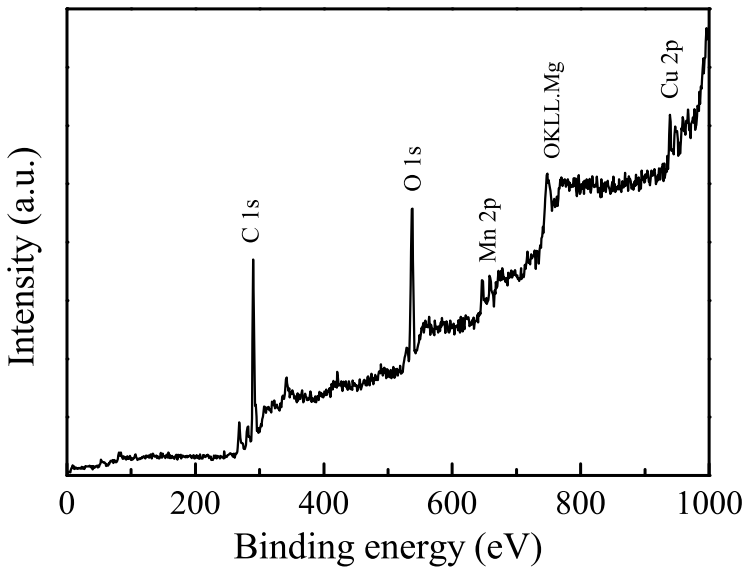

Fig. S 3: XPS spectra of the MnO-Cu-CG composite.

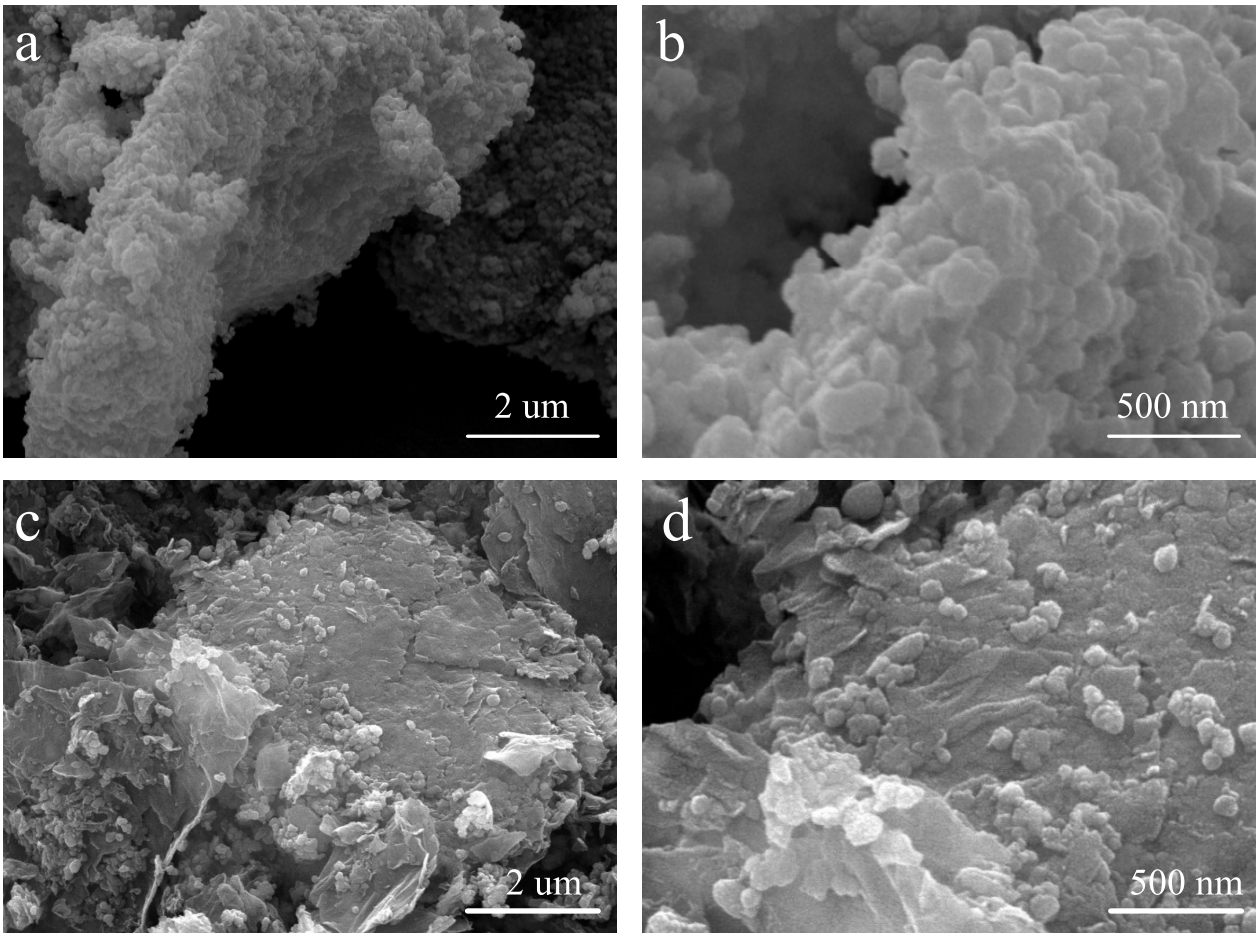

Fig. S 4: (a,b) SEM images of the MnO-Cu-G composite at different magnifications; (c,d) SEM images of the MnO-G composite at different magnifications.

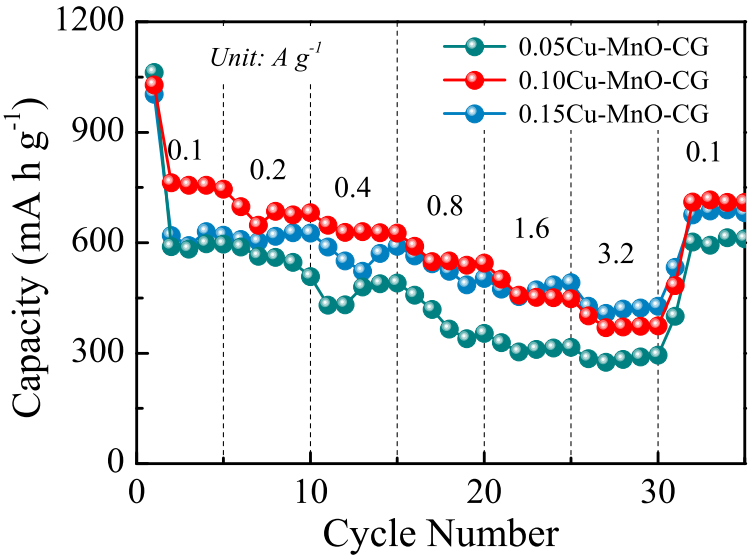

Fig. S 5: Comparison of rate performance of the MnO-Cu-CG electrode obtained with different Cu content at various current densities. The working electrodes were prepared by adding 10 wt% acetylene black.

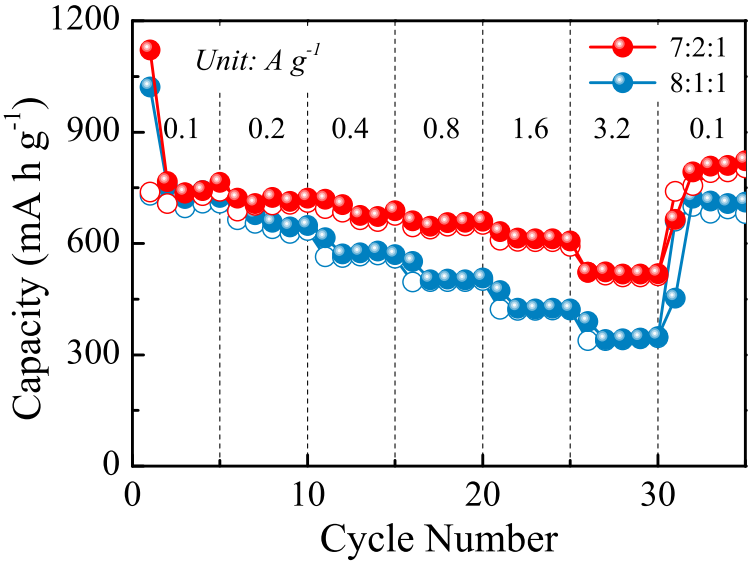

Fig. S 6: Comparison of rate performance of the MnO-Cu-CG electrode obtained with different mass ratio of as-prepared materials, acetylene black, and polyvinylidene fluoride at various current densities.

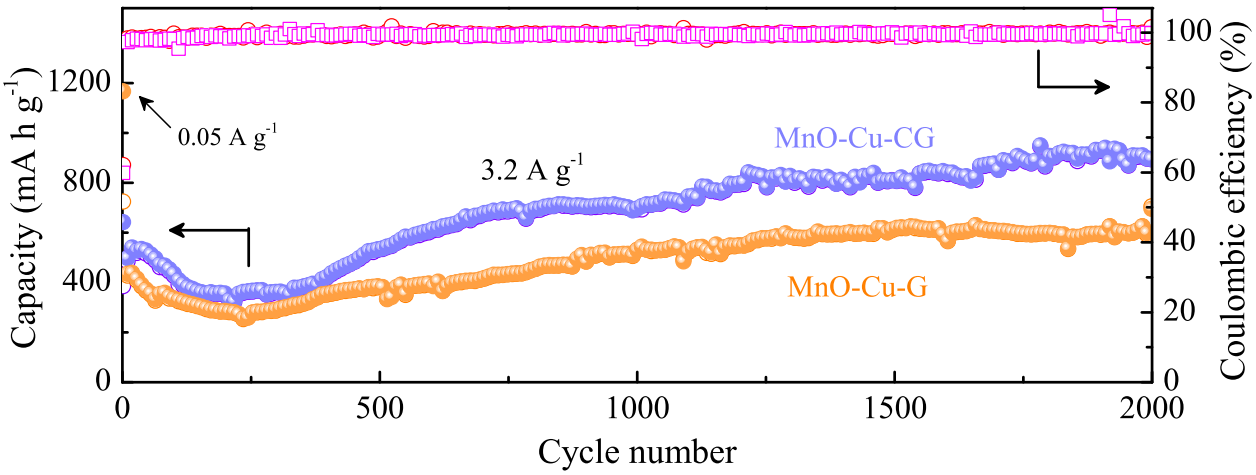

Fig. S 7: Cycling performance and Coulombic efficiency of MnO-Cu-CG and MnO-Cu-G electrodes at 3.2 A g^{-1} for 2000 cycles (at 0.05 A g^{-1} for the first three cycles).

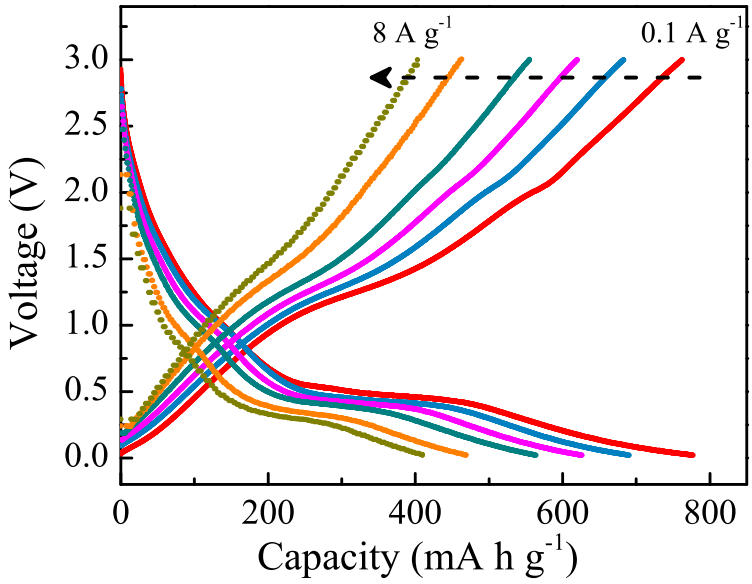

Fig. S 8: Galvanostatic charge/discharge curves of MnO-Cu-CG electrode at various current densities from 0.1 A g^{-1} to 8 A g^{-1};