

Electronic supplementary information

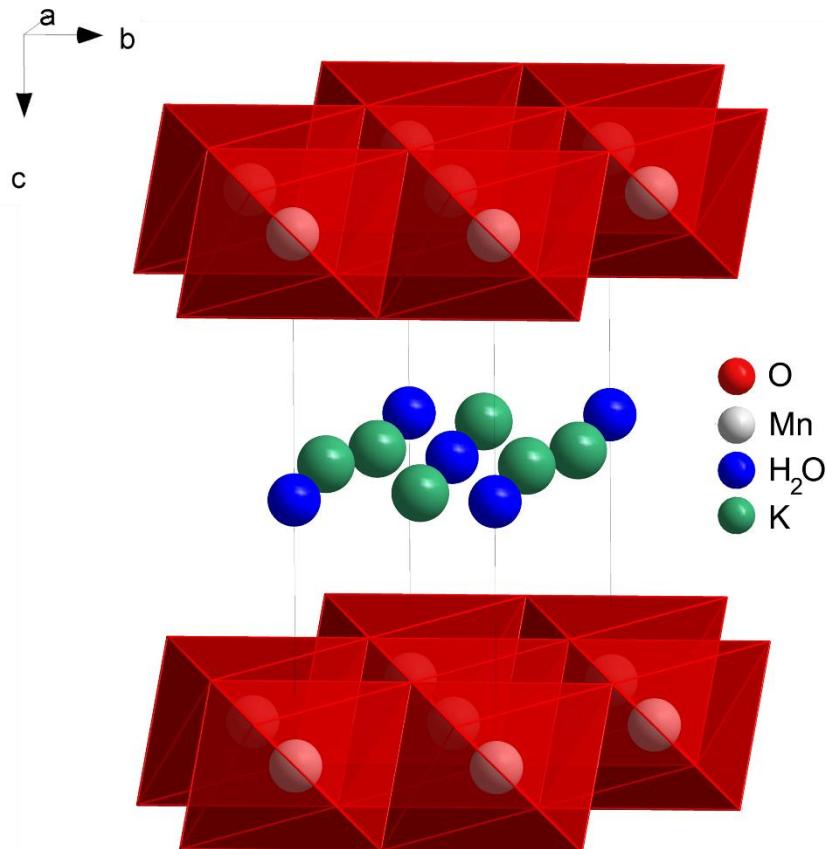


Fig. S1: Crystal structure of $K_xMn_2O_4 \cdot yH_2O$ (birnessite).

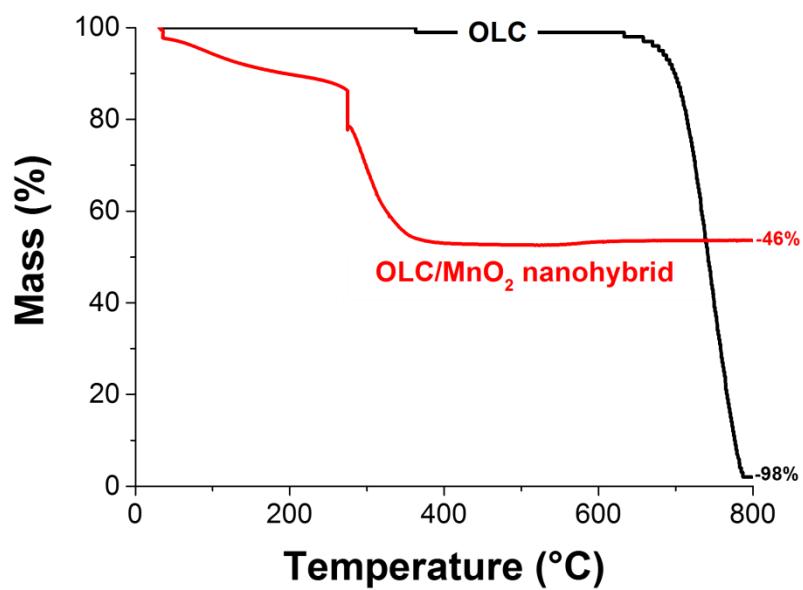


Fig. S2: TGA of OLC and OLC/MnO₂ nanohybrid.

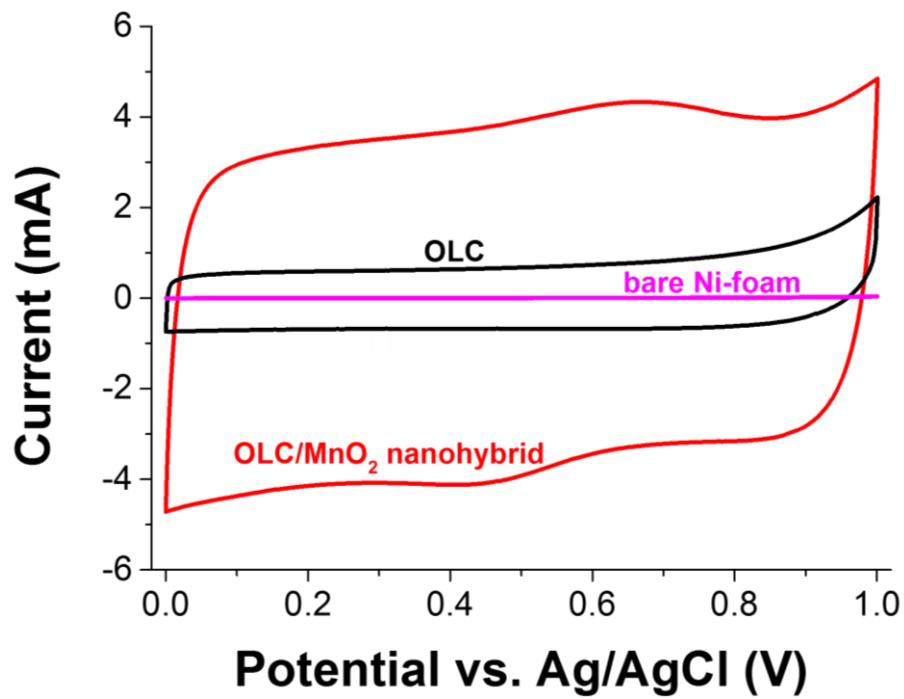


Fig. S3: Cyclic voltammograms for OLC, OLC/MnO₂ nanohybrid and Nickel foam in aqueous 1 M Na₂SO₄ at 5 mV s⁻¹.

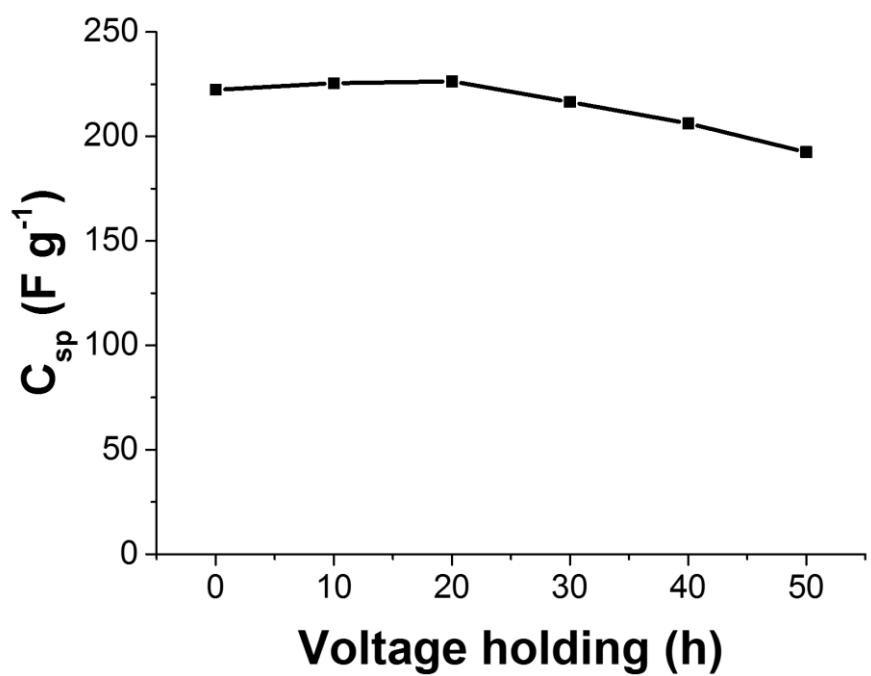


Fig. S4: 50 h voltage holding experiments at 0.8 V cell voltage. Electrolyte: aqueous 1 M Na_2SO_4 .

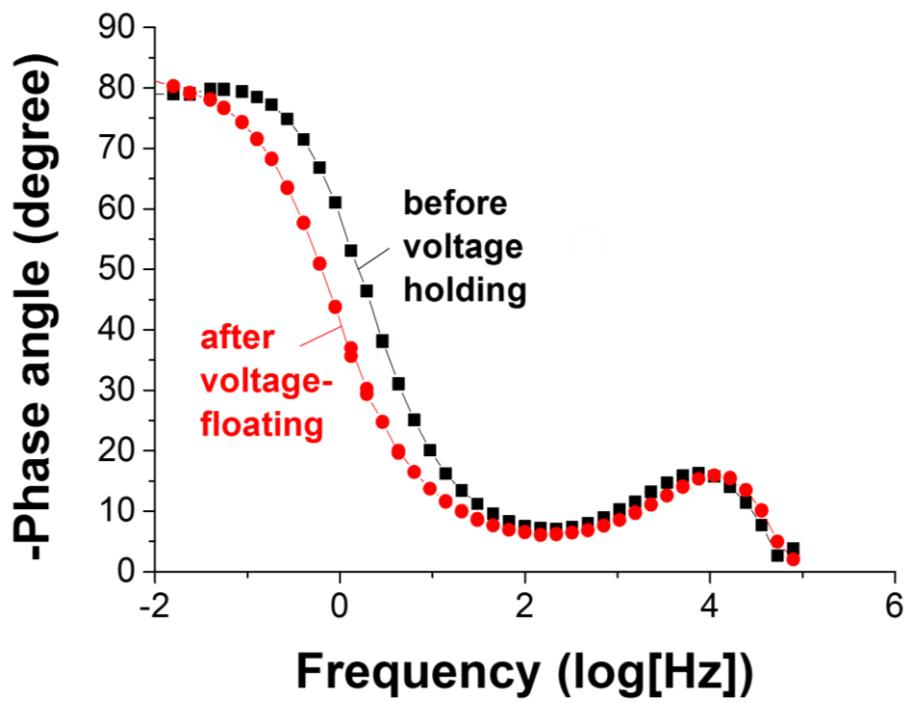


Fig. S5: Bode plot of the OLC/MnO₂ nanohybrid symmetric pseudocapacitor before and after 50 h voltage holding experiments. Electrolyte: aqueous 1 M Na₂SO₄.

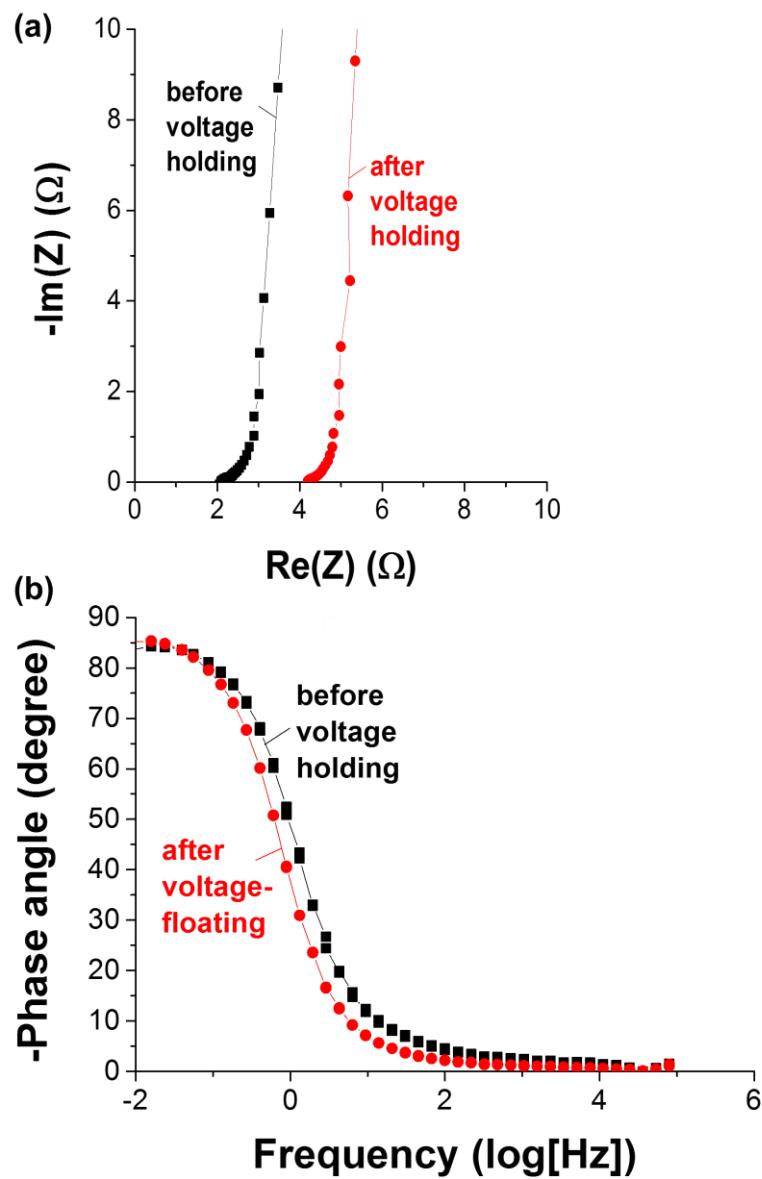


Fig. S6: Nyquist (a) and Bode (b) plots of the OLC symmetric supercapacitor before and after 50 h voltage holding experiments. Electrolyte: aqueous 1 M Na_2SO_4 .