

Two-step electrodeposition of Hausmannite sulphur reduced graphene oxide and cobalt-nickel layered double hydroxide heterostructure for high-performance supercapacitor

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SUPPLEMENTARY INFORMATION

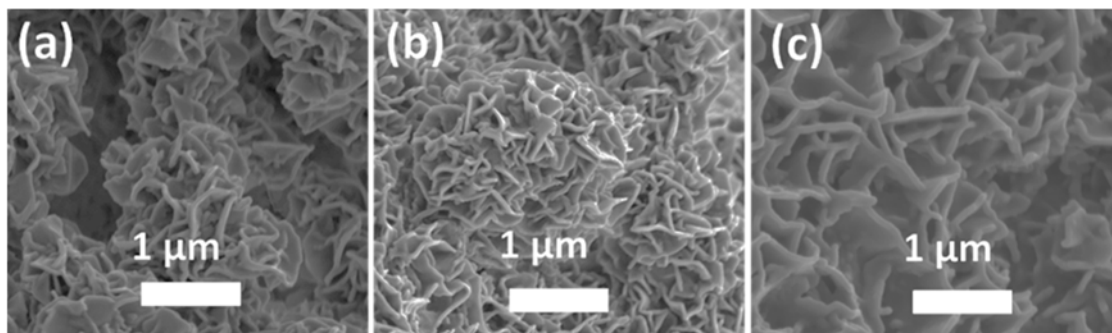


Fig. S1: Low resolution SEM micrographs of CN samples synthesized using different number of CV cycles at a scan rate of 5 mV s^{-1} : (a) CN-3, (b) CN-6 and (c) CN-9.

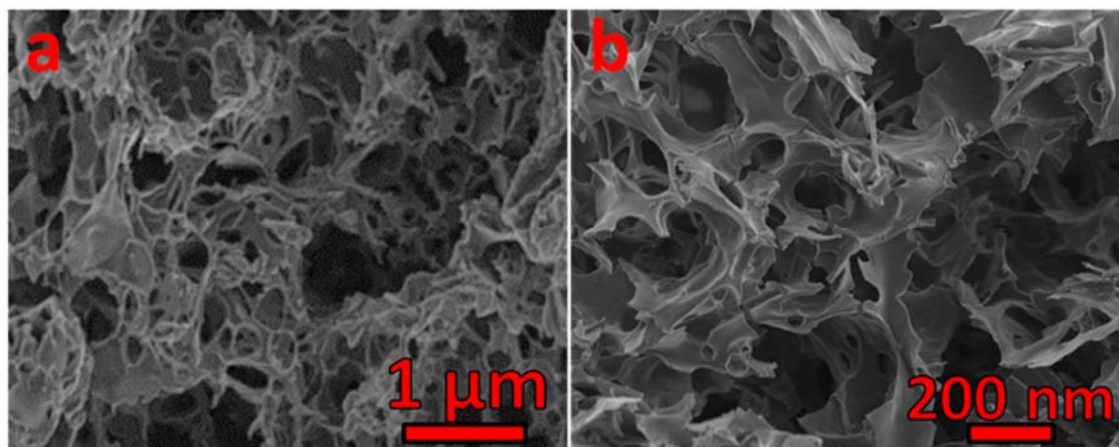


Fig. S2: SEM images of CCBW at: (a) low resolution and (b) high resolution.

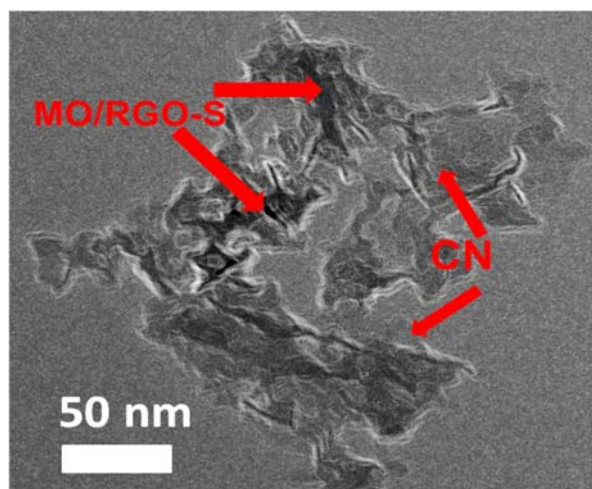


Fig S3: TEM image of MO/RGO-S-50@CN.

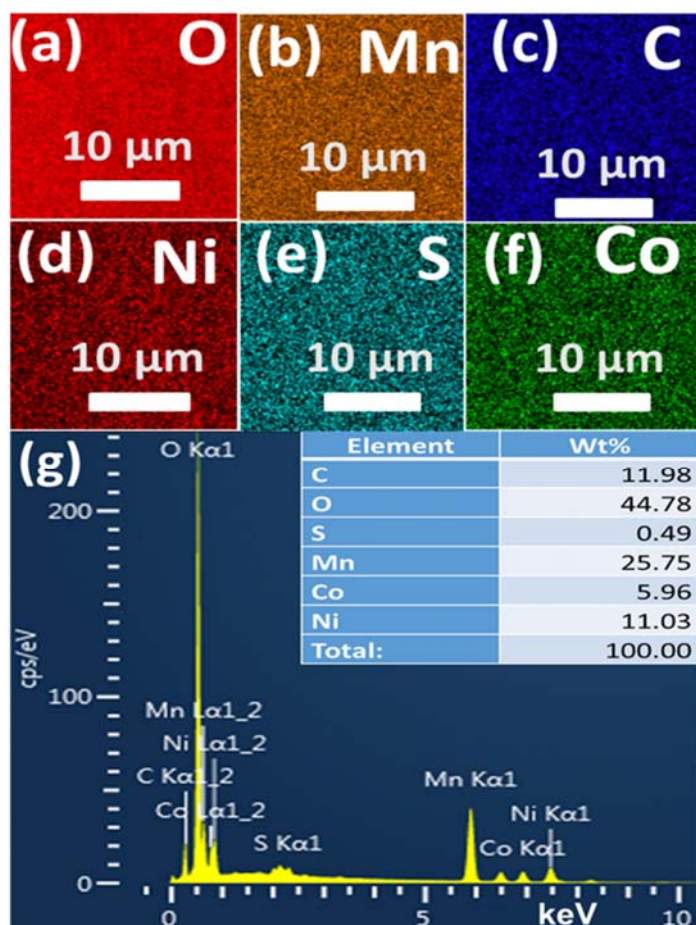


Fig S4: (a)-(f) shows the elemental mapping of MO/RGO-S-50@CN displaying the distribution of oxygen, manganese, carbon, nickel, sulphur, and cobalt, respectively and (g) shows the percentage composition of the elements within the material.

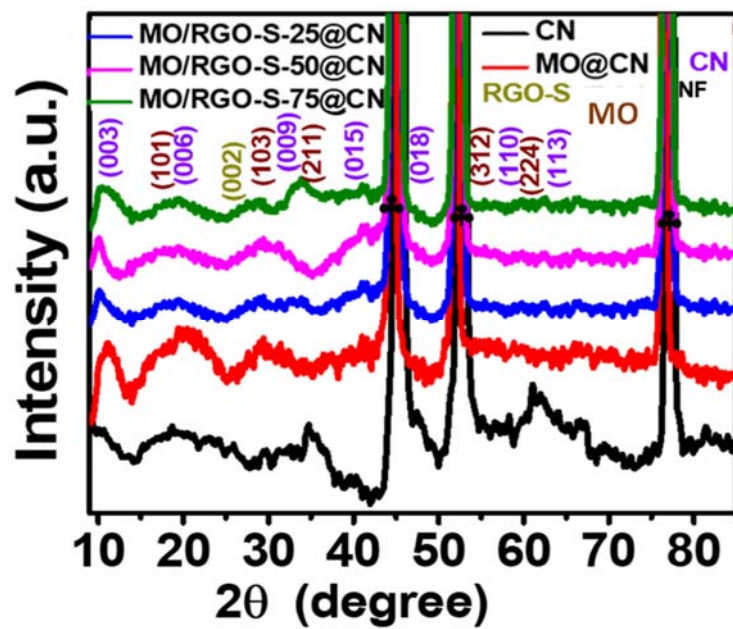


Fig. S5: The XRD patterns of samples with various RGO-S mass loading.

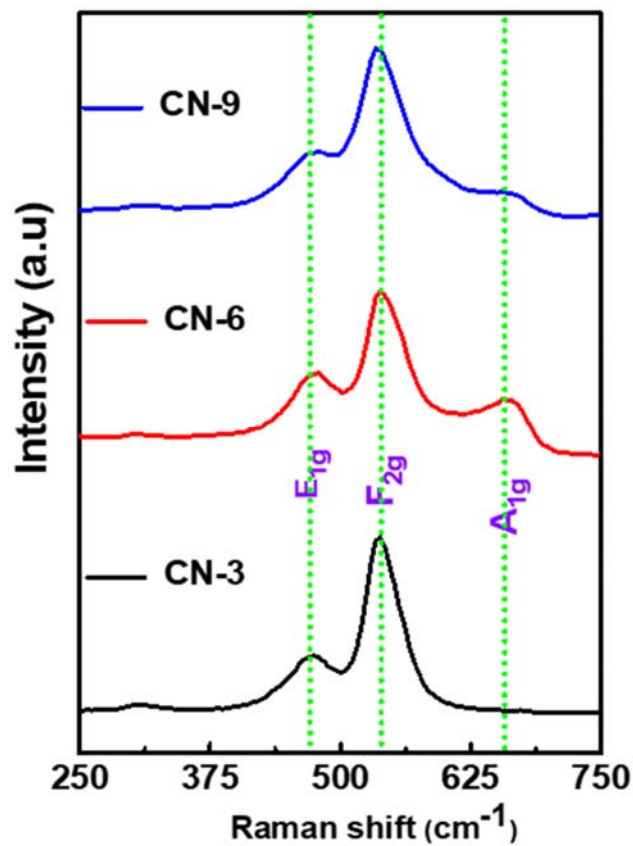


Fig. S6: Raman images of CN samples synthesized using different number of CV cycles.

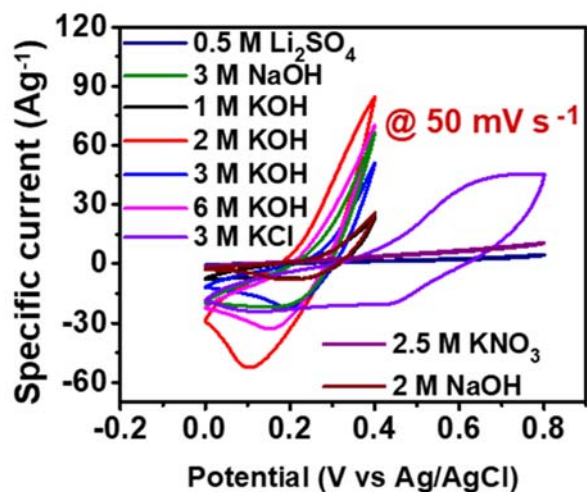


Fig. S7: (a) CV for MO/RGO-S-50@CN at 50 mV s^{-1} using different electrolytes.

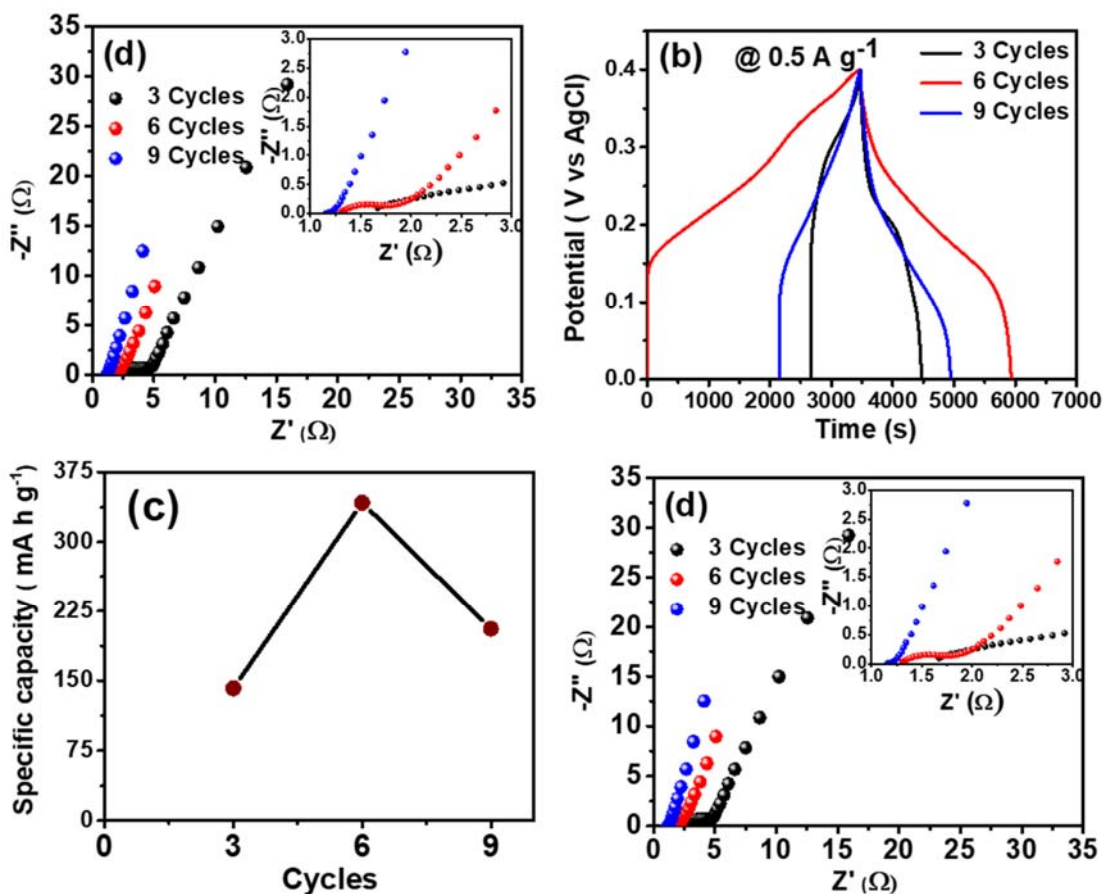


Fig. S8: (a) CV, (b) GCD, (c) specific capacity vs number of CV cycles and (d) Nyquist plot (insert is high frequency magnification indicating ESR values) of CN samples synthesized using different number of CV cycles as indicated in the figure: