

Supplementary information

Article

# Composite Based on Multi-Walled Carbon Nanotubes and Manganese Oxide with Rhenium Additive for Supercapacitors: Structural and Electrochemical Studies

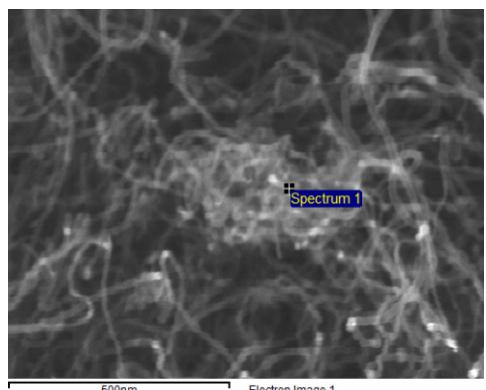
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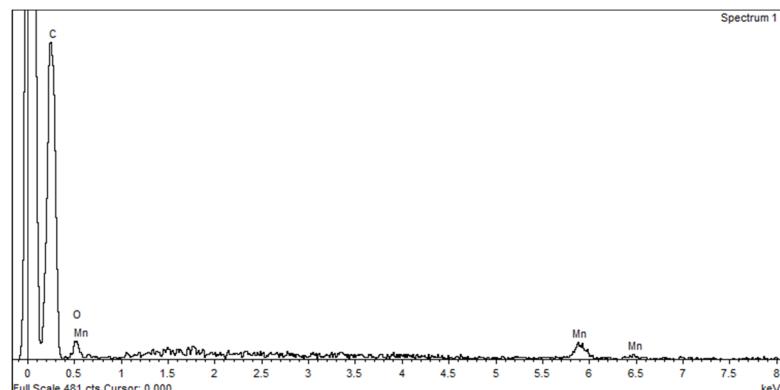
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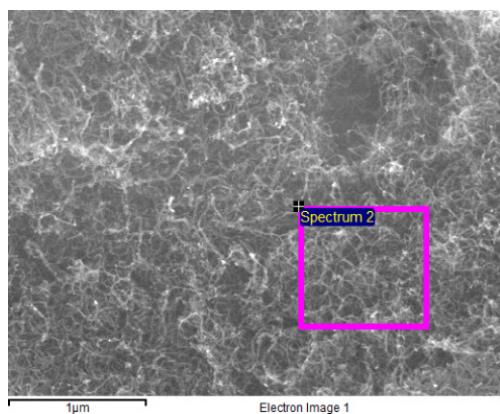


(a)

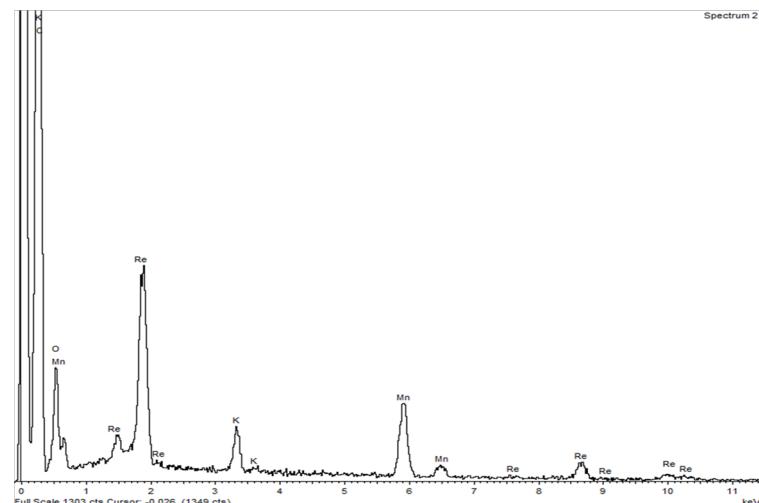


(b)

**Figure S1.** SEM image of Mn-0 composite (a) and the EDX spectrum recorded in the selected area (b).

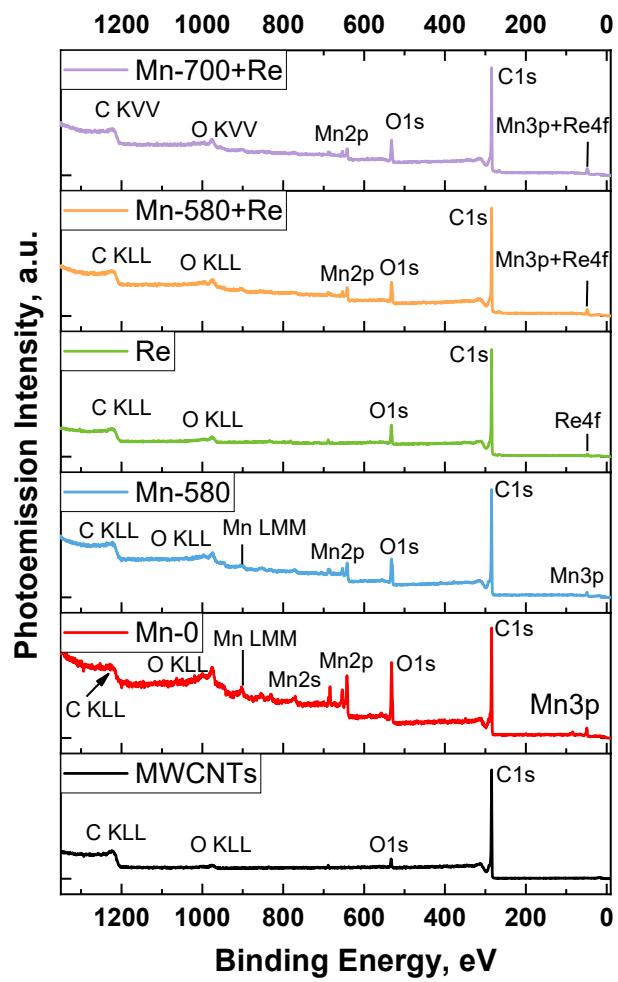


(a)

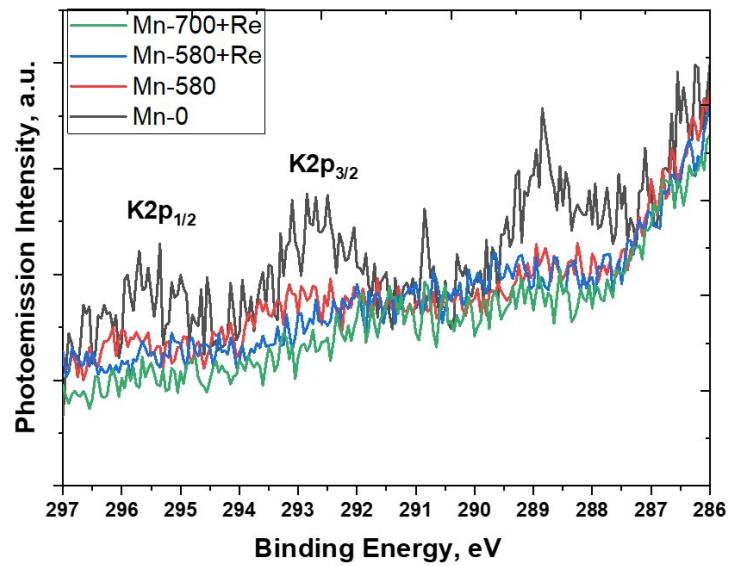


(b)

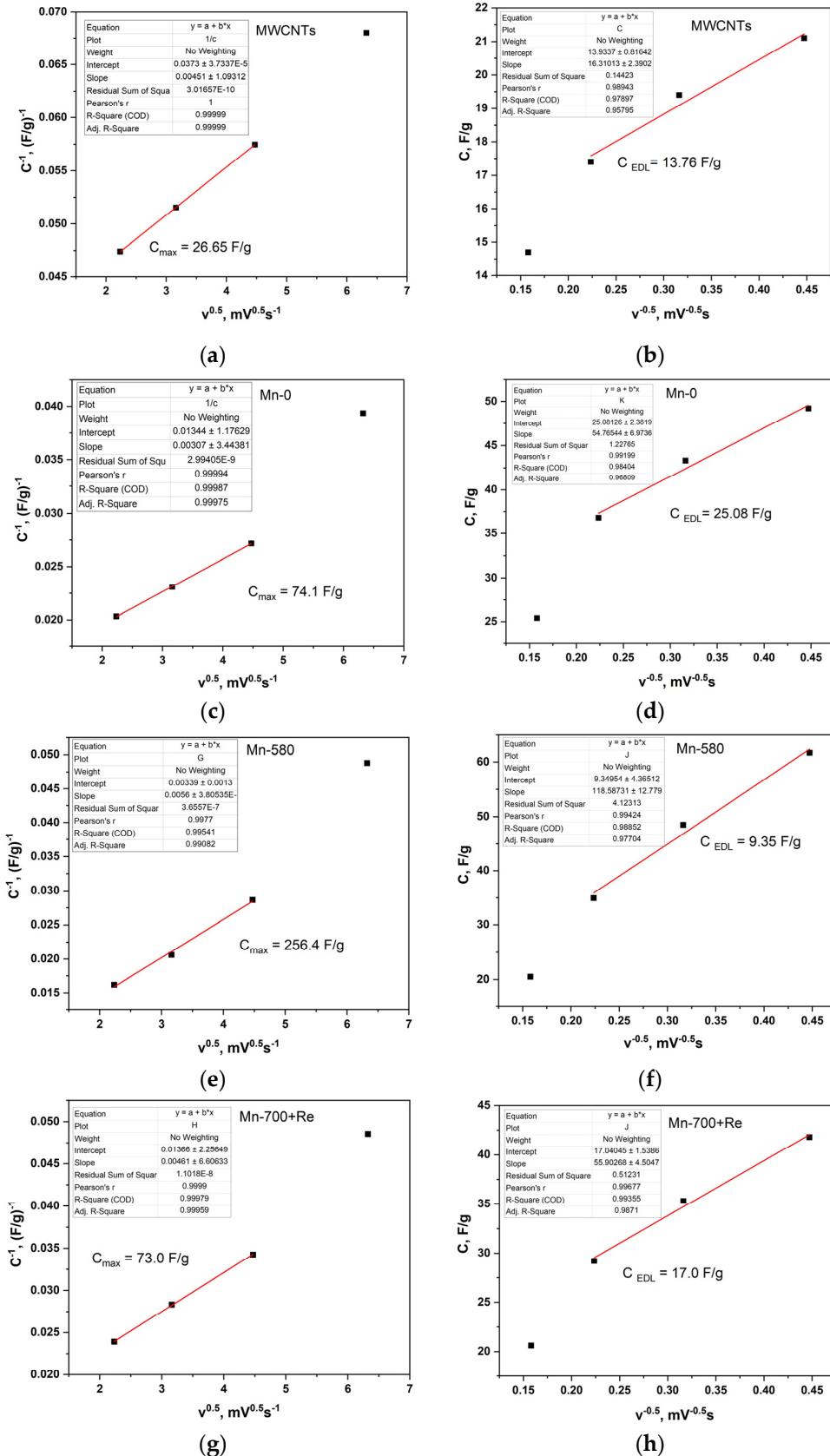
**Figure S2.** SEM image of Mn-580+Re composite (a) and the EDX spectrum recorded in the selected area (b).



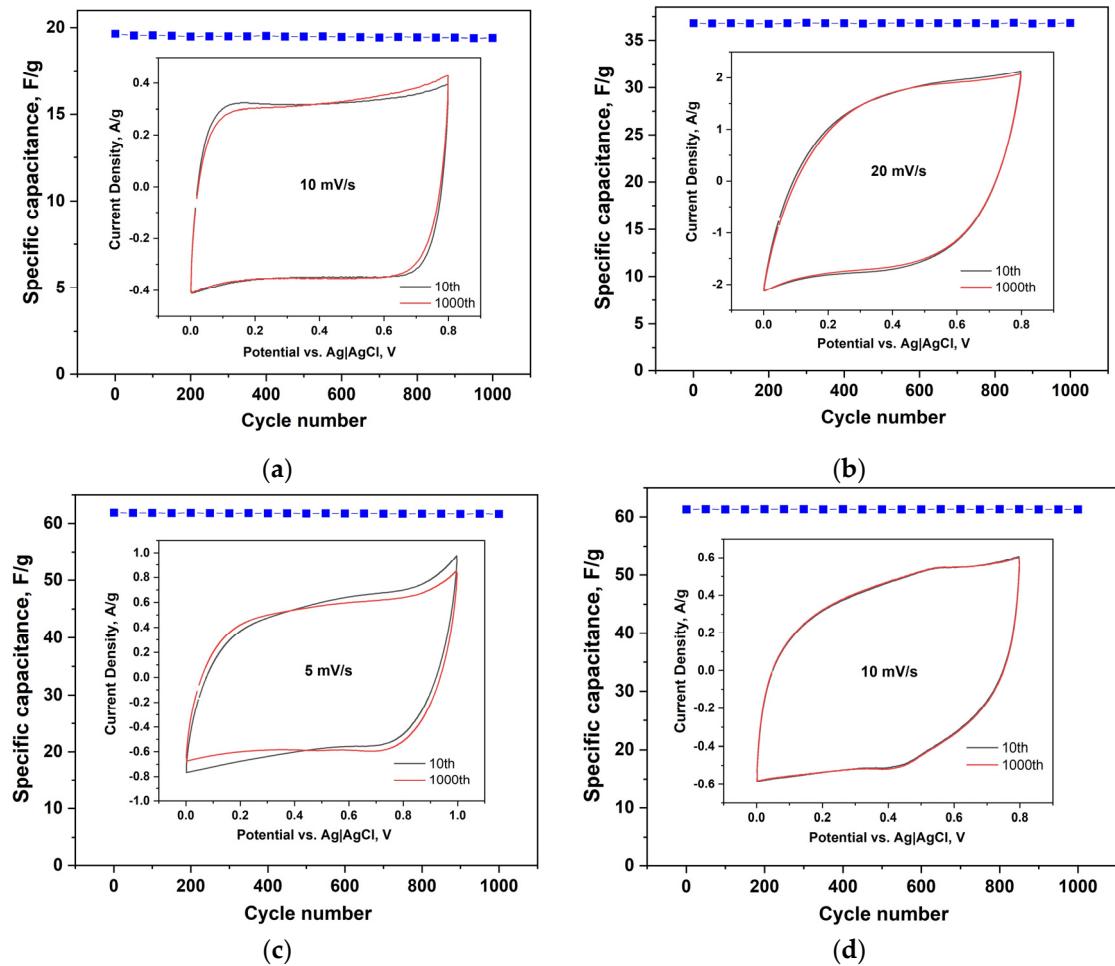
**Figure S3.** Overview spectra of MWCNTs and composites.



**Figure S4.** K2p photoemission spectra for different composites.



**Figure S5.** The dependence of the reciprocal of the total capacitance ( $C^{-1}$  (F/g) $^{-1}$ ) on the square root of the scan rate ( $v^{0.5}$ , mV $^{0.5} \cdot s^{-0.5}$ ) and the total capacitance (C, F/g) on the reciprocal of the square root of the scan rate ( $v^{-0.5}$ , mV $^{-0.5} \cdot s^{0.5}$ ), respectively for the electrodes: MWCNTs (a) and (b), Mn-0 (c) and (d), Mn-580 (e) and (f), Mn-700+Re (g) and (h).



**Figure S6.** Change in specific capacitance depending on the number of cycles for electrodes based on MWCNTs **(a)** Mn-0 **(b)**, Mn-580 **(c)** and Mn-580+Re **(d)**.