Supplementary information

Boosting the performance of Zn ion hybrid supercapacitor by regulating the chemical and physical active sites of graphene film

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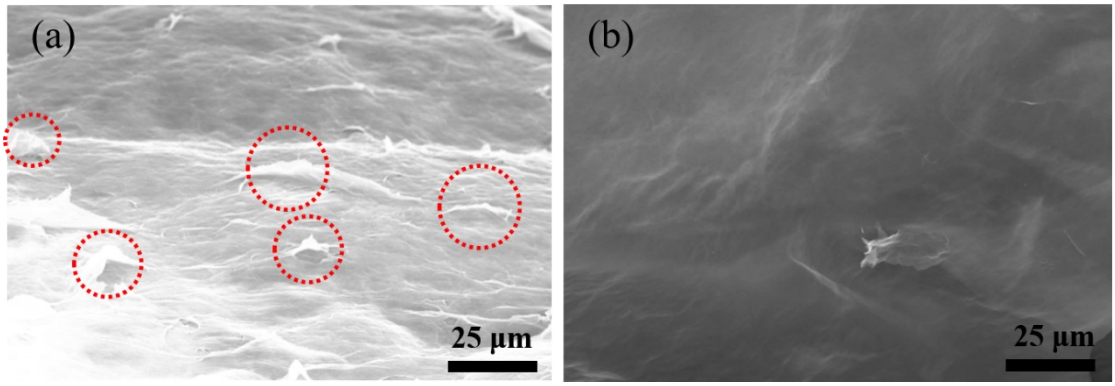

Fig. S1 SEM images of RGO and RGO-N(DMF): the surface morphologies of (a) RGO and (b) RGO-N(DMF).

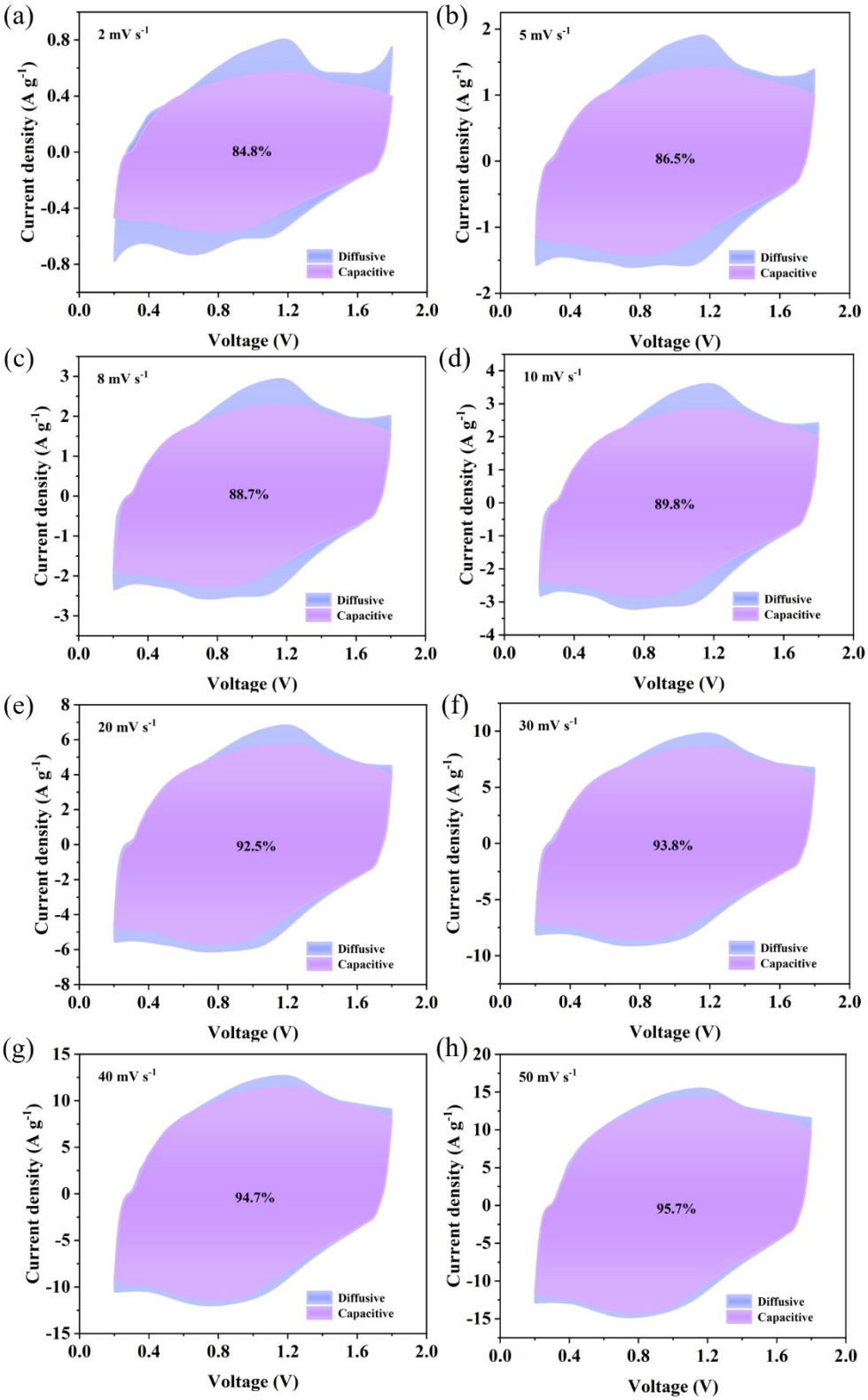

Fig. S2 The electrochemical kinetics of the RGO-N(DMF) electrode in ZHS. (a-h) CV curves with the capacitive contribution at 2-50 mV s^{-1}.

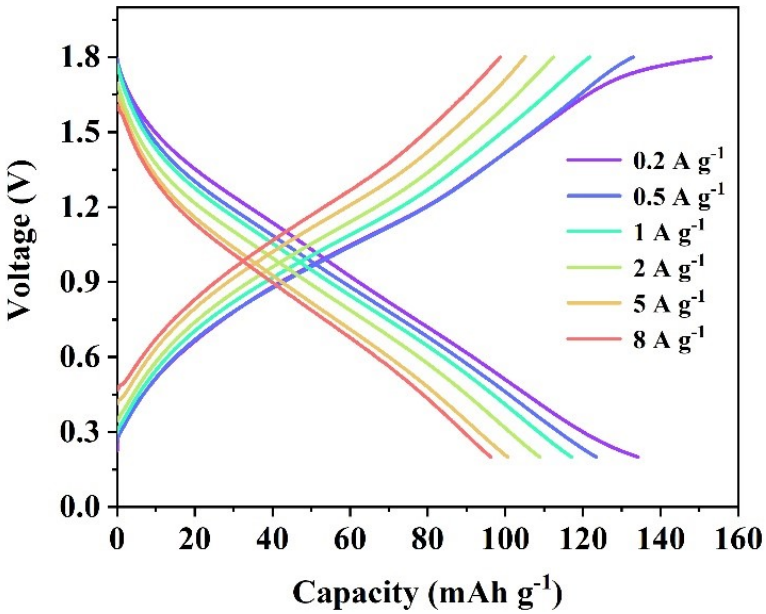

Fig. S3 GCD curve of RGO-N(DMF) electrode.

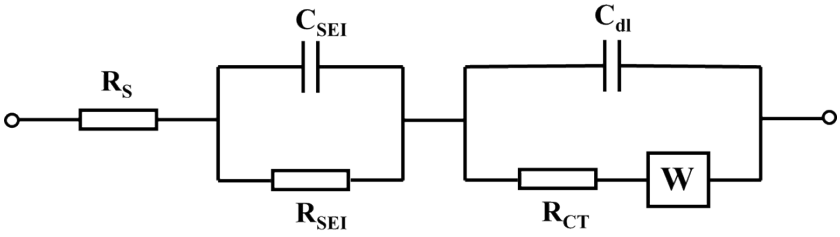

Fig. S4 The equivalent circuit model

Tabel S1 The ratio of functional groups in the O 1s XPS spectra

Samples	C=O	COOH	C-O/C-OH
RGO	23.48%	38.7%	36.7%
RGO-N(DMF)	37.19%	25.9%	35.2%

Table S2 The detailed values of R_S, R_{SEI} and R_{CT} derived from Nyquist plots

Sample	R_S (Ω)	R_{SEI} (Ω)	R_{CT} (Ω)
RGO-N(DMF)	3.3	68.8	298.8
RGO	12.6	98.2	597.5