

Supplementary Information

V_2O_5 /carbon nanotube/polypyrrole based freestanding negative electrodes for high-performance supercapacitors

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Table S1 Capacitive performances of V₂O₅-based composite electrodes reported previously in the literature and in this present study

Electrode materials	capacitance of electrode	Cycle life	Reference
V ₂ O ₅ /f-CNT/PPy	1266 mF cm ⁻² at a current density of 1 mA/cm ²	83.0 % capacitance retention after 10000 cycles	This study
V ₂ O ₅ /CNT	553.33 F/g	83.0 % capacitance retained after 1000 cycles	J. Alloys. Compo., 2017, 708, 134.
V ₂ O ₅ /MCNT	569.7 F/g at scan rate of 2 mV/s	89.2 % capacitance retention after 4000 cycles	Mater. Des., 2019, 182, 107972.
V ₂ O ₅ /vertically-aligned CNT	284 F/g at 2 A/g	89.3 % capacitance retained after 2500 cycles	J. Colloid Interface Sci., 2021, 588, 847.
V ₂ O ₅ /PANI	664.5 mF/cm ² at a current density of 0.5 mA/cm ²	92.0 % capacitance retained after 5000 cycles	J. Mater. Chem. A, 2014, 2, 10882.
V ₂ O ₅ /PANI	529.6 F/g at a scan rate of 2 mV/s	84.2% capacitance retained after 5000 cycles	Mater. Res. Bull., 2018, 107, 379.
rGO/V ₂ O ₅ /PANI	273 F/g at 1 A/g	61.0 % capacitance retained after 13000 cycles	J. Colloid Interface Sci., 2019, 545, 82.
rGO/V ₂ O ₅ /PPy	750 F/g at 5 A/g	83.0 % capacitance retained after 3000 cycles	Int. J. Hydr. Energy, 2017, 42, 21073.