Electronic Supplementary Information (ESI)

Electrochemical measurements

For activated carbon electrochemical measurements, the working electrode was prepared by mixing the activated carbon, acetylene black and PTFE (polytetrafluoroethylene) in a weight ratio of 80: 15: 5. The slurry was coated on a piece of Ni foam of about 1 cm^{-2} and dried at room temperature for 24 h. Then the Ni foam was pressed to a thin foil at a pressure of 5.0 MPa. The typical mass load of the electrode material was 5.0 mg. Electrochemical measurements were performed with a Arbin-BT2000 electrochemical workstation in an aqueous KOH (3.0 M) electrolyte with a three-electrode cell where a Pt foil serves as the counter electrode and a Ag/AgCl electrode as the reference electrode.

The specific capacitance is calculated by the following equation:

$$C = \frac{I\Delta t}{m\Delta V}$$

Where *I* is the charge-discharge current, Δt is the discharge time, ΔV is the voltage range and *m* is the mass of the active material.

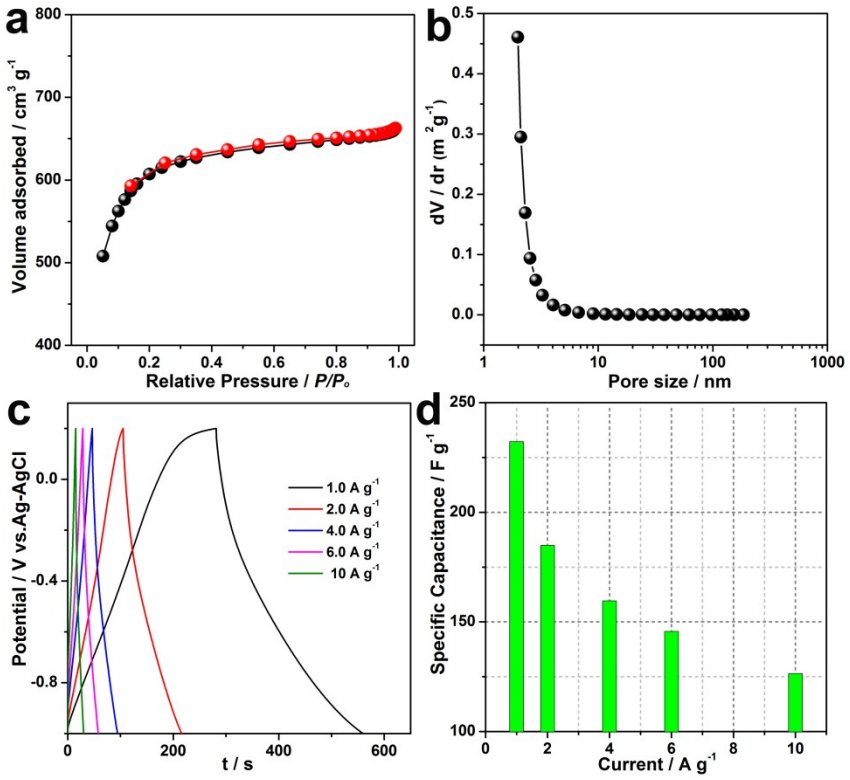

Fig. S1 (a) N_2 adsorption-desorption isotherms of the activated carbon; (b) Corresponding pore volume distribution (dV dr^{-1}) against pore diameter curves of the activated carbon; (c) Galvanostatic charge-discharge curves at different current densities for activated carbon; (d) Specific capacitances at controlled current densities for activated carbon.

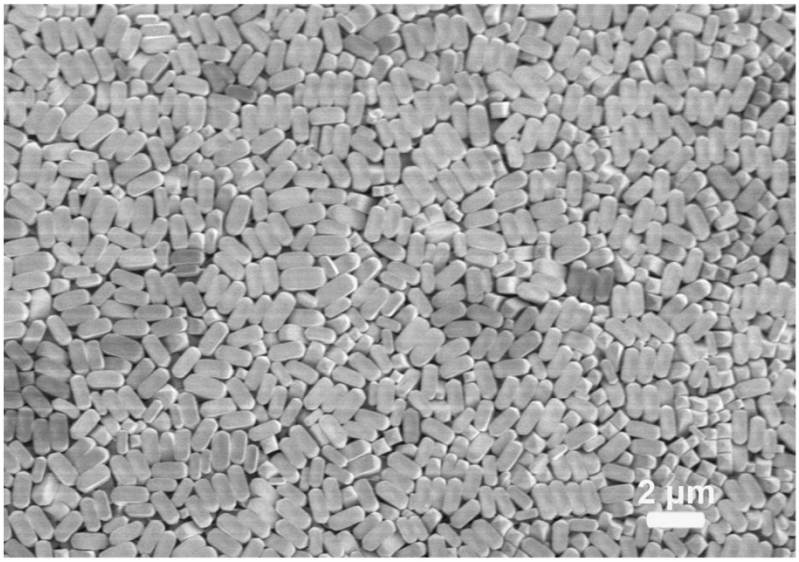

Fig. S2 Low-magnification FESEM image of Ni-Mn precursor.

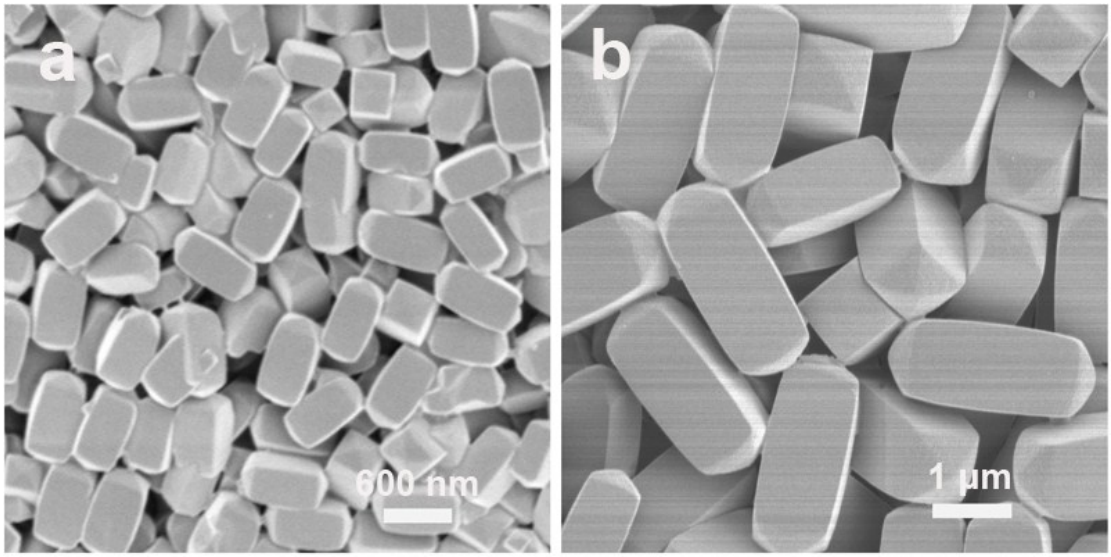

Fig. S3 FESEM images of the Ni-Mn precursors prepared under different amounts of $Ni(NO_3)_2 \cdot 6H_2O$: (a) without adding $Ni(NO_3)_2 \cdot 6H_2O$; (b) 0.145 g.

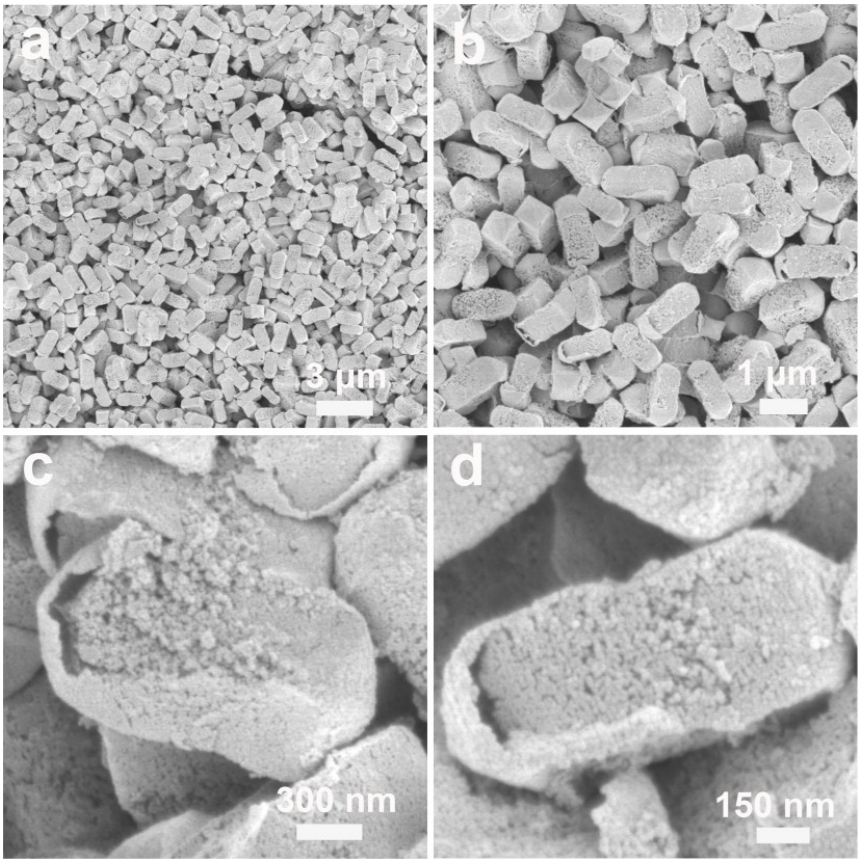

Fig. S4 FESEM images of the as-prepared mesoporous hybrid NiO_x-MnO_x (P0) nanoprisms.

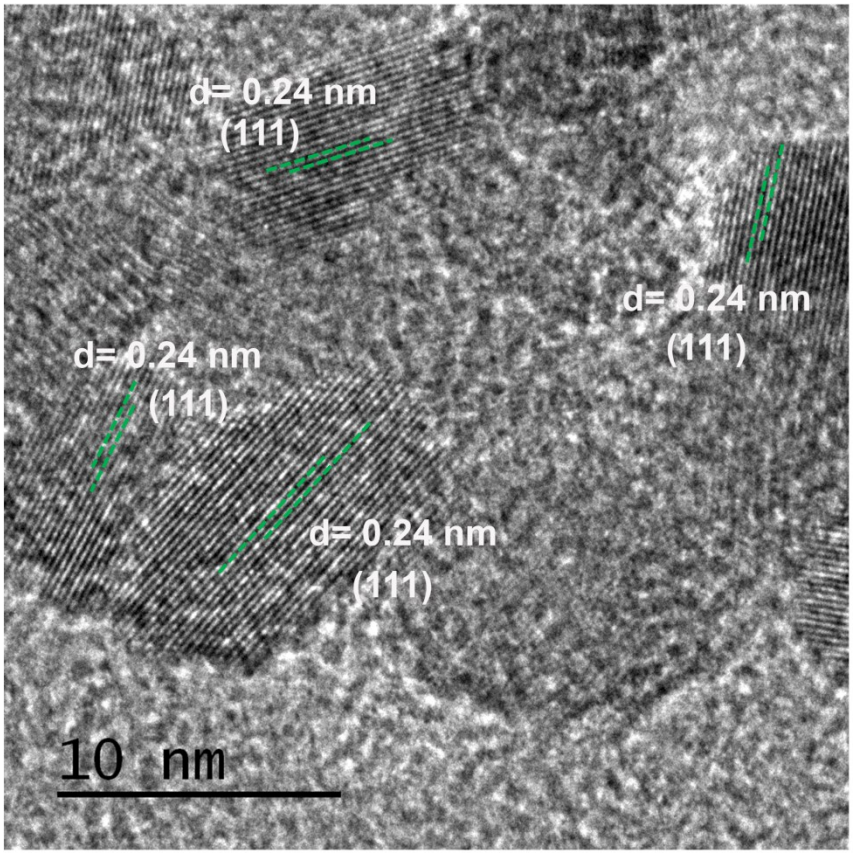

Fig. S5 HRTEM image of the as-prepared mesoporous hybrid NiO_x-MnO_x (P0) nanoprisms.

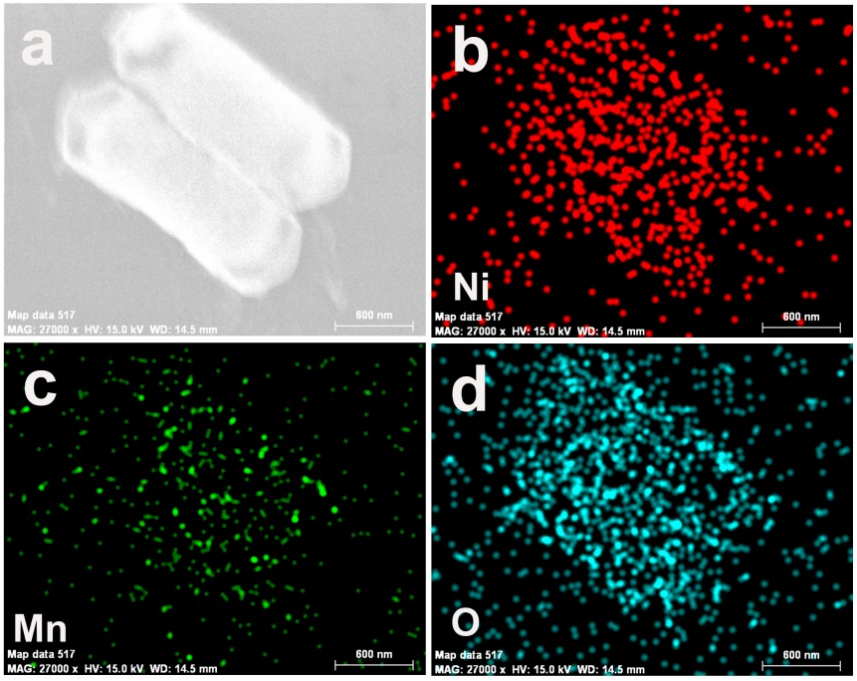

Fig. S6 (a) FESEM image and EDX-elemental mapping images (b-d) of the mesoporous hybrid NiO_x-MnO_x (P0) nanoprisms shown in (a).

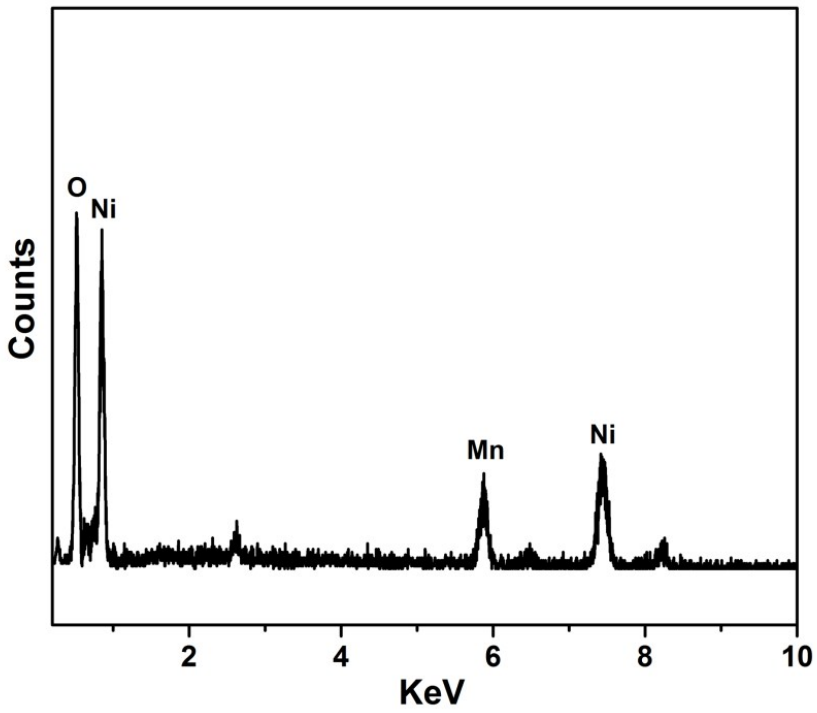

Fig. S7 EDX spectrum of the mesoporous hybrid NiO_x-MnO_x (P0) nanoprisms.

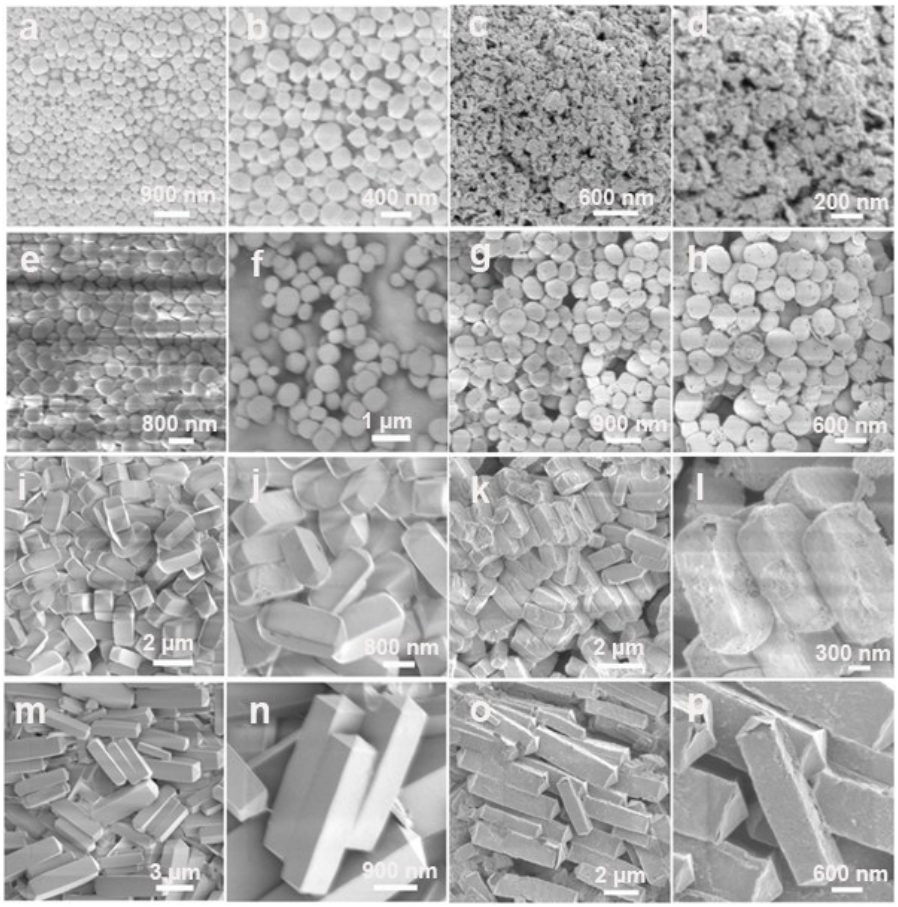

Fig. S8 SEM images of the as-prepared Ni-Mn precursors under different amounts of $Mn(CH_3COO)_2$: (a, b) without adding $Mn(CH_3COO)_2$; (e, f) 0.05 g; (i, j) 0.25 g and (m, n) 0.30 g, SEM images of the Ni-Mn precursors after calcinations: (c, d) P1; (g, h) P2; (k, l) P3 and (o, h) P4.

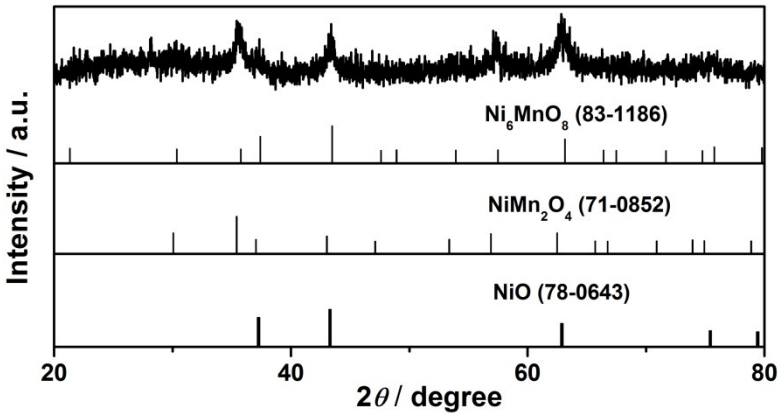

Fig. S9 XRD patterns of the P4 sample.

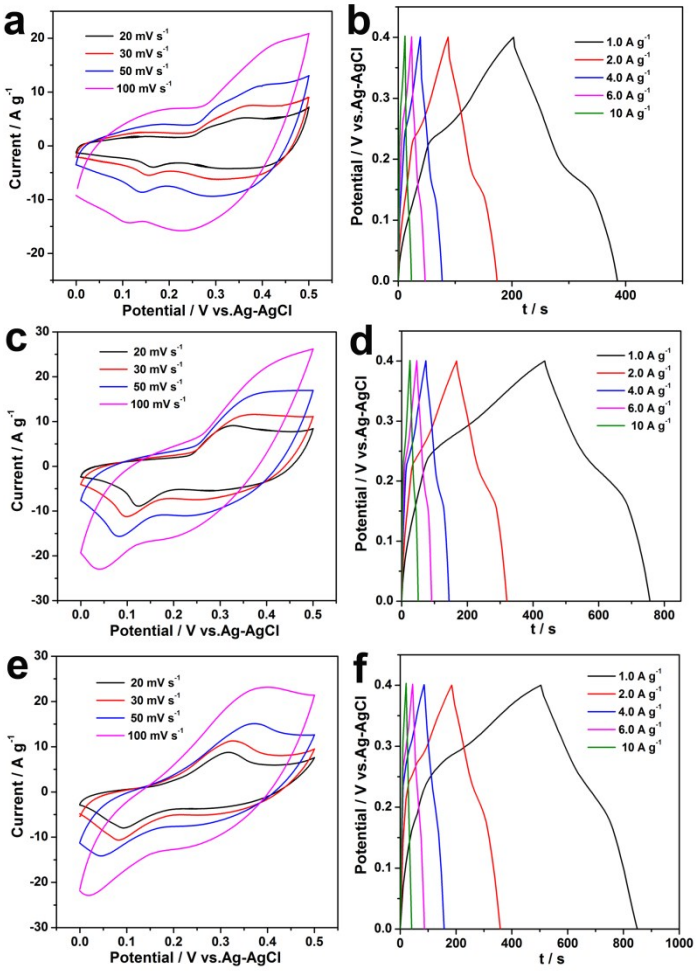

Fig. S10 Cyclic voltammetry (CV) and charge-discharge (CD) curves at different current densities for different samples: (a, b) P1; (c, d) P2 and (e, f) P3.

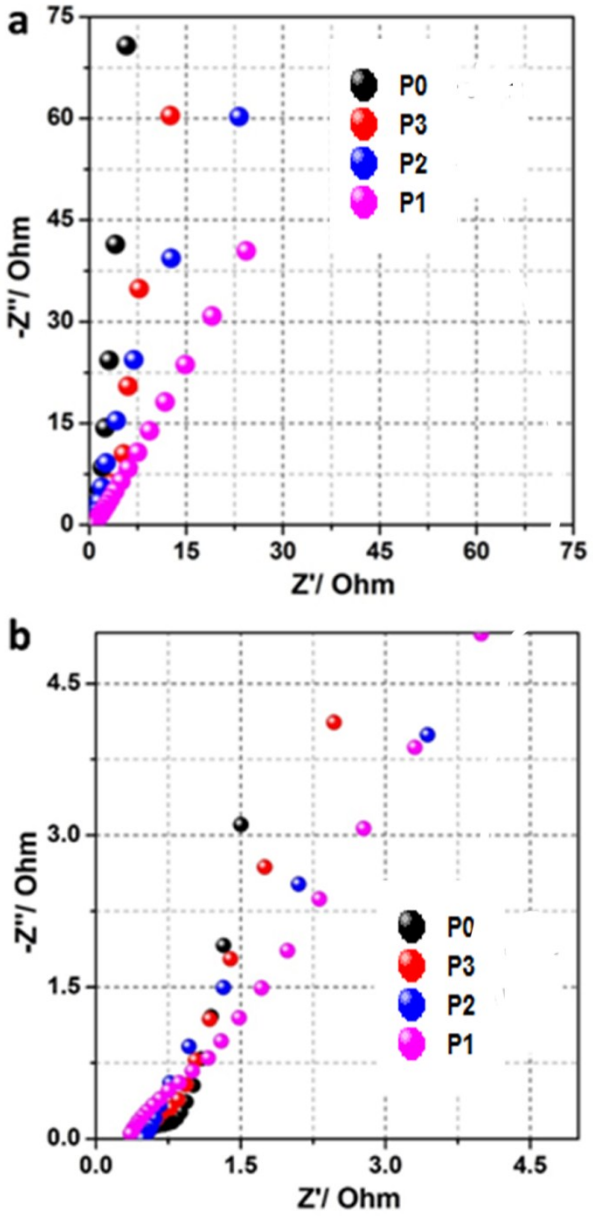

Fig. S11 Electrochemical impedance spectra of different nanostructured electrodes materials at room temperature in 3.0 M KOH solutions, a) 0-75 Ohm; b) 0-5 Ohm.

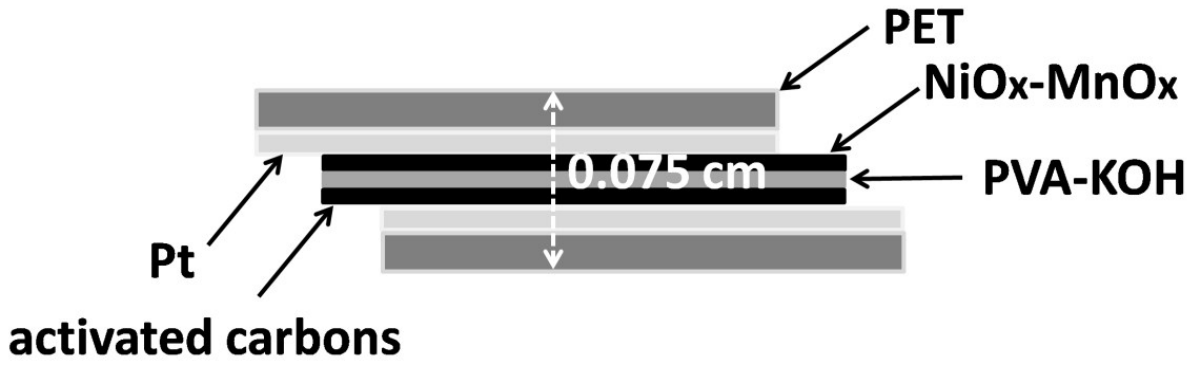

Fig. S12 Schematic diagrams of the flexible solid-state NiOx-MnOx //activated carbons hybrid supercapacitors device.

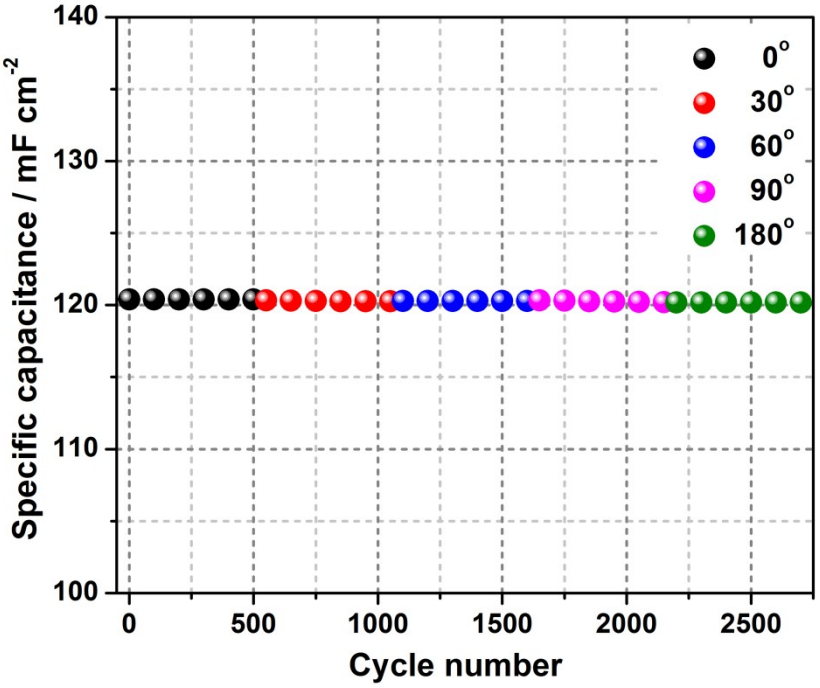

Fig. S13 Specific capacitance over 500 cycles under the curvature of 0°, 30°, 60°,90° and 180° at current density of 3.0 mA cm^{-2}.