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Electronic Supplementary Information

Monolithic nanofoam based on conjugated microporous polymers nanotubes with ultrahigh mechanical strength and flexibility for energy storage

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Synthesis of the CMPs-MN rod

This synthesis process is similar to the columnar CMPs-MN1 just using a glass tube with an inner diameter of 5mm and a length of 15 cm as reactor.

Synthesis of the fibrous CMPs-MN

This synthesis process is similar to the columnar CMPs-MN1 just using capillary tube with an inner diameter of 0.9 mm and a length of 20 cm as reactor.

Characterization

The structure of the CMPs-MN was investigated by the Solid-phase ^{13}C CP/MAS nuclear magnetic resonance (NMR Bruker AVANCE III 400 MHz NMR spectrometer) and Fourier transform infrared spectroscopy (FTIR Nicolet Nexus 670 FT-IR). The morphology of the CMPs-MN was taken on Scanning electron microscope (SEM JSM-6701F) and Transmission electron microscope (TEM Tecnai G2TF20). The specific surface area and porosity of the as-prepared CMPs-MN was measured by N_2 adsorption and desorption at 77.3 k using a volumetric sorption analyzer (micromeritics ASAP 2020) before analysis, the samples were degassed at 120 ^oC for 12 h under vacuum. The elemental analyse was carried out on an elemental analyzer (Elementar Vario EL). Thermogravimetric analyse was measured by thermogravimeter analyzer (Perkin Elmer) from room temperature to 800 ^oC at a heating and cooling rate of 10 ^oC min^{-1} under nitrogen atmosphere. The compressive properties were performed by using an electrical universal material testing machine with equipped two flat-surface compression stages and a 500 N load cell (EZ-Test, SHIMADZU) at a stress rate of 5mm/min.

Figure S1 Camera photo of CMPs-MN0

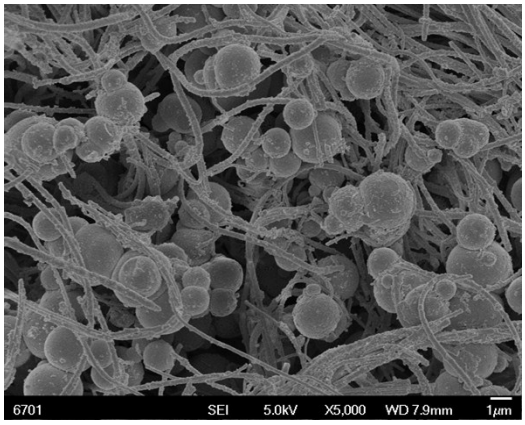

Figure S2 SEM image of CMPs-MN0

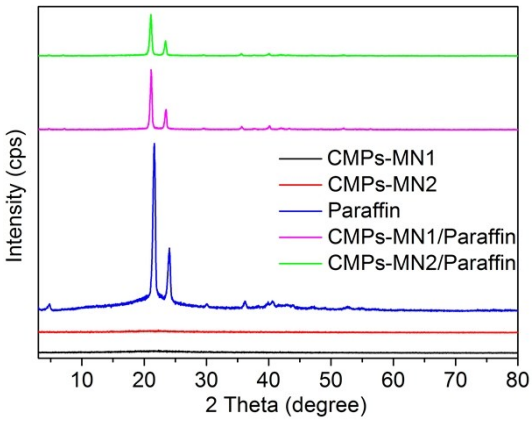

Figure S3 XRD patterns of CMPs-MN1, CMPs-MN2, paraffin, CMPs-MN1/Paraffin and CMPs-MN2/Paraffin composites