

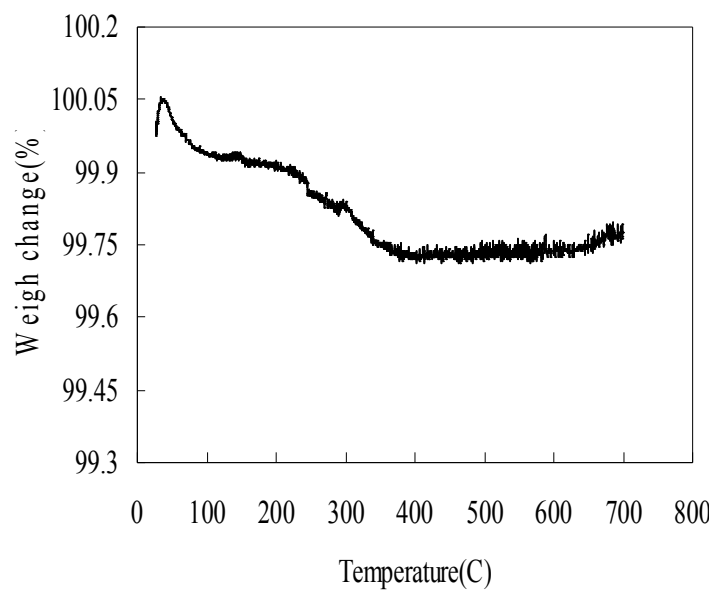


Fig.1S TGA curve of the mesoporous V_2O_5 nanofibers annealed at 500 °C in air for 1 hr, showing the presence of residence carbon.

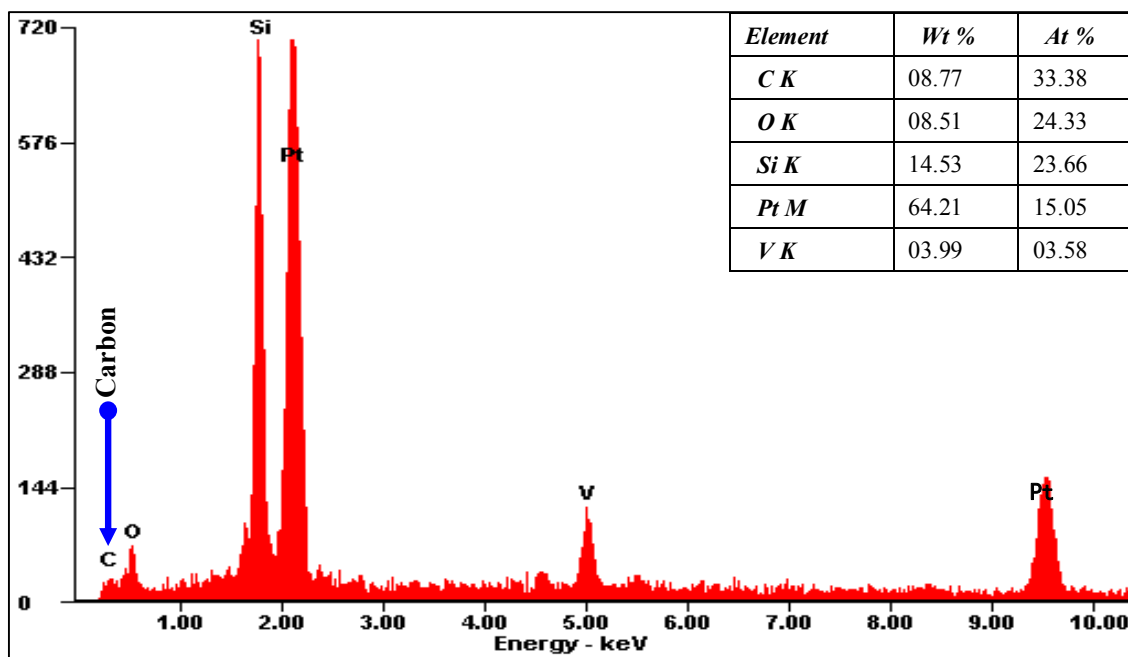


Fig. 2S Energy dispersive X-ray spectroscopy (EDS) results of mesoporous V_2O_5 nanofibers on the substrate, which is Pt coated on silicon.

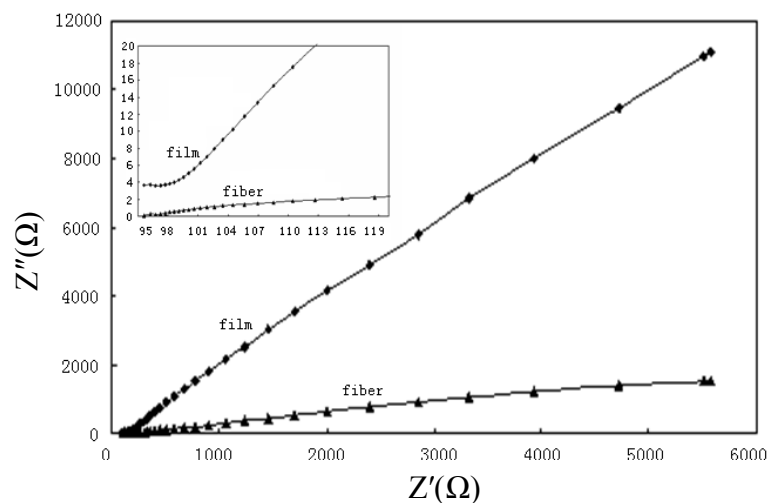


Fig.3S (a) Nyquist plots of AC impedance spectra of mesoporous V_2O_5 nanofibers and film annealed at 500 °C in air for 1 hr and measured in 1 M $LiClO_4$ in propylene carbonate at frequencies ranging from 100kHz to 0.005 Hz (the inset showing the expanded plots at the high