

Supporting Information

A novel ordered SiO_xC_y film anode fabricated via electrodeposition in air for Li-ion batteries†

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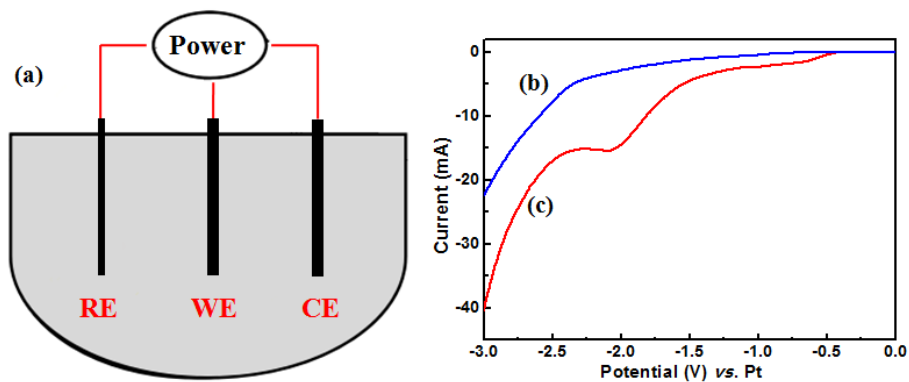


Fig. S1 The schematic diagram of the three-electrode cell for electrodeposition (a), linear sweep voltammograms of carbon paper electrode in CH_3CN containing 0.1 M TBACl without VTC (b) and with 0.3 M VTC (c) with a scan rate of 10 mV s^{-1} .

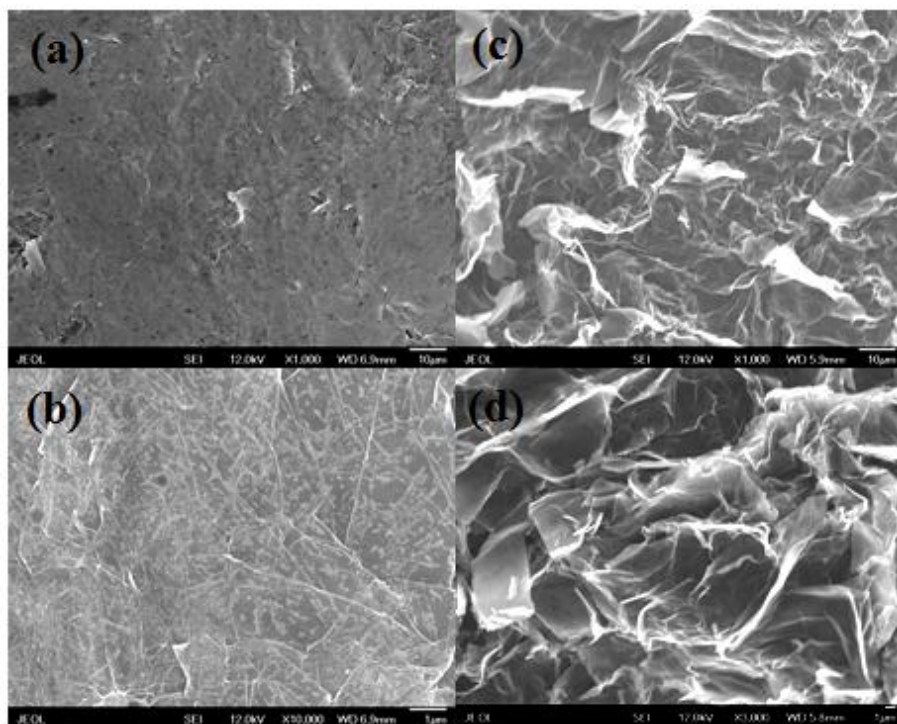


Fig. S2 The FESEM images of carbon paper (a, b) and the deposit on the carbon paper before adding VTC precursor (c, d).

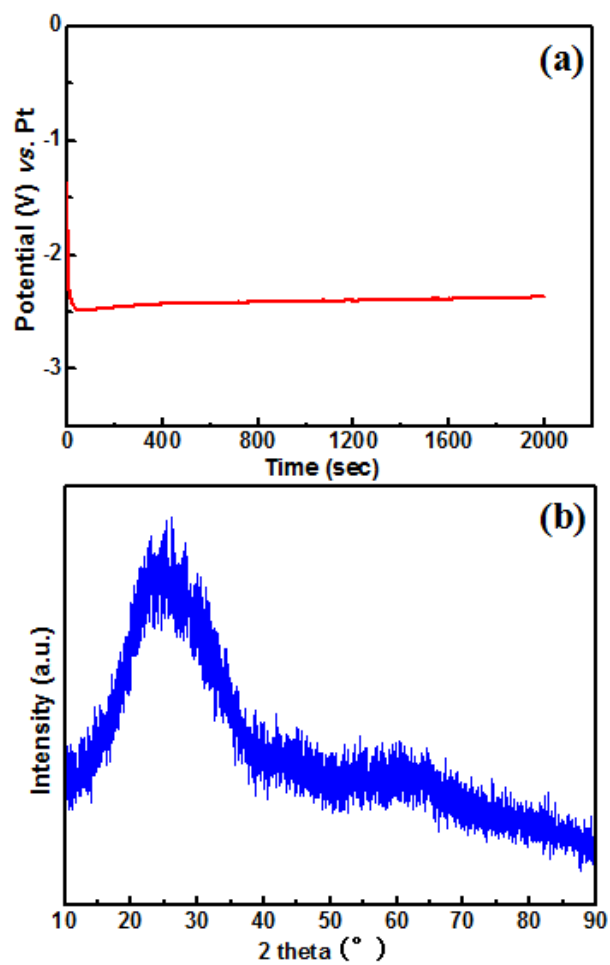


Fig. S3 Chronopotentiogram at a constant current of -20 mA of the film fabricated by electrodeposition on a carbon paper in VTC-TBACl-CH₃CN electrolyte (a) and XRD pattern of the obtained deposit (b).

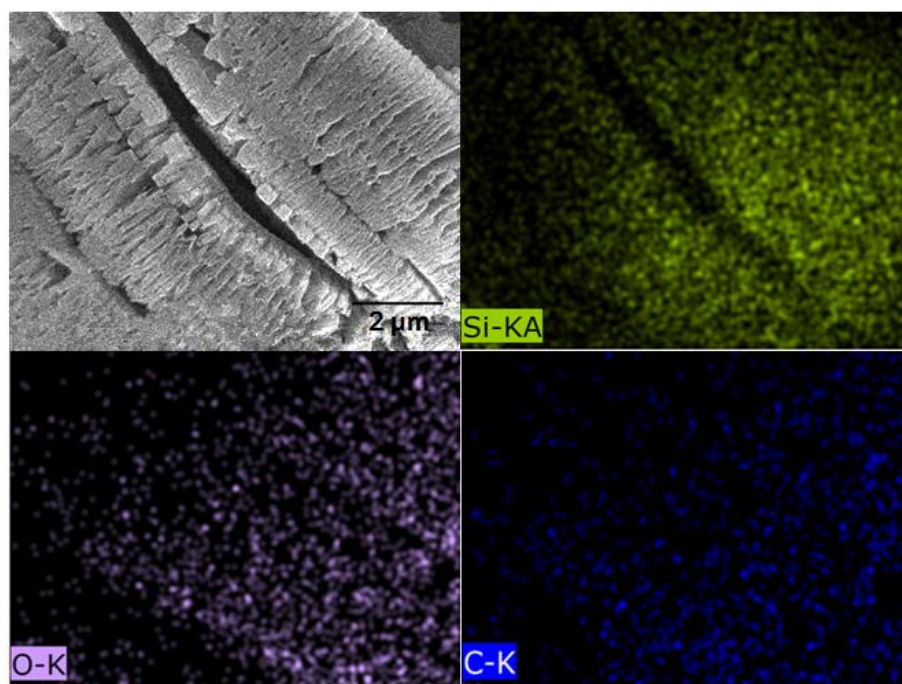


Fig. S4 The element mapping images of the deposit on the carbon paper after adding VTC precursor.

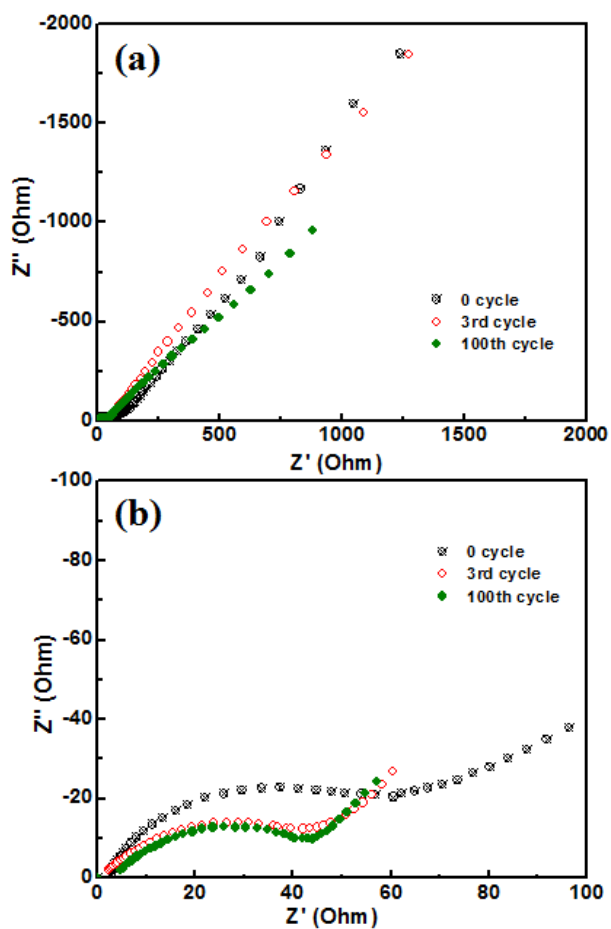


Fig. S5 The Nyquist plots of the SiO_xCy film anode in an open-circuit potential with a frequency range from 100 kHz to 10 mHz after different cycles (a, b).