

Supplementary Materials: Nitridation Temperature Effect on Carbon Vanadium Oxynitrides for a Symmetric Supercapacitor

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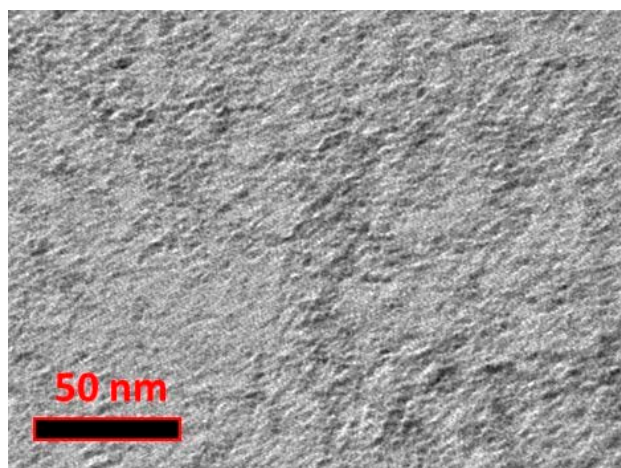


Figure S1: The TEM images of the C-V₂NO@800 °C nanomaterials

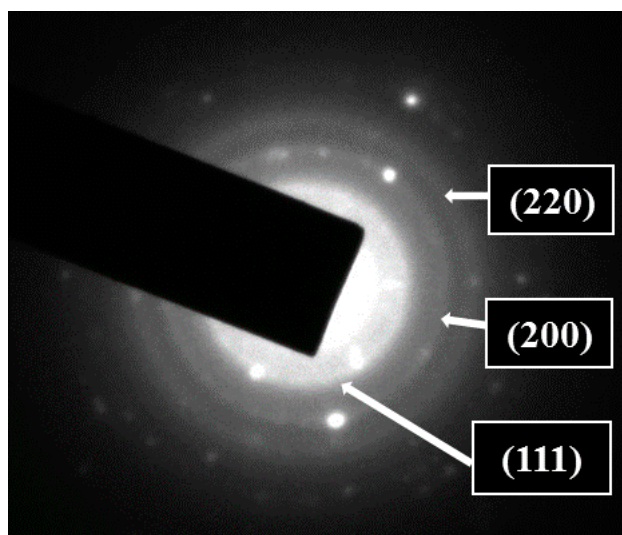


Figure S2: The selected area electron diffraction (SAED) pattern of the C-V₂NO@800 °C nanomaterials

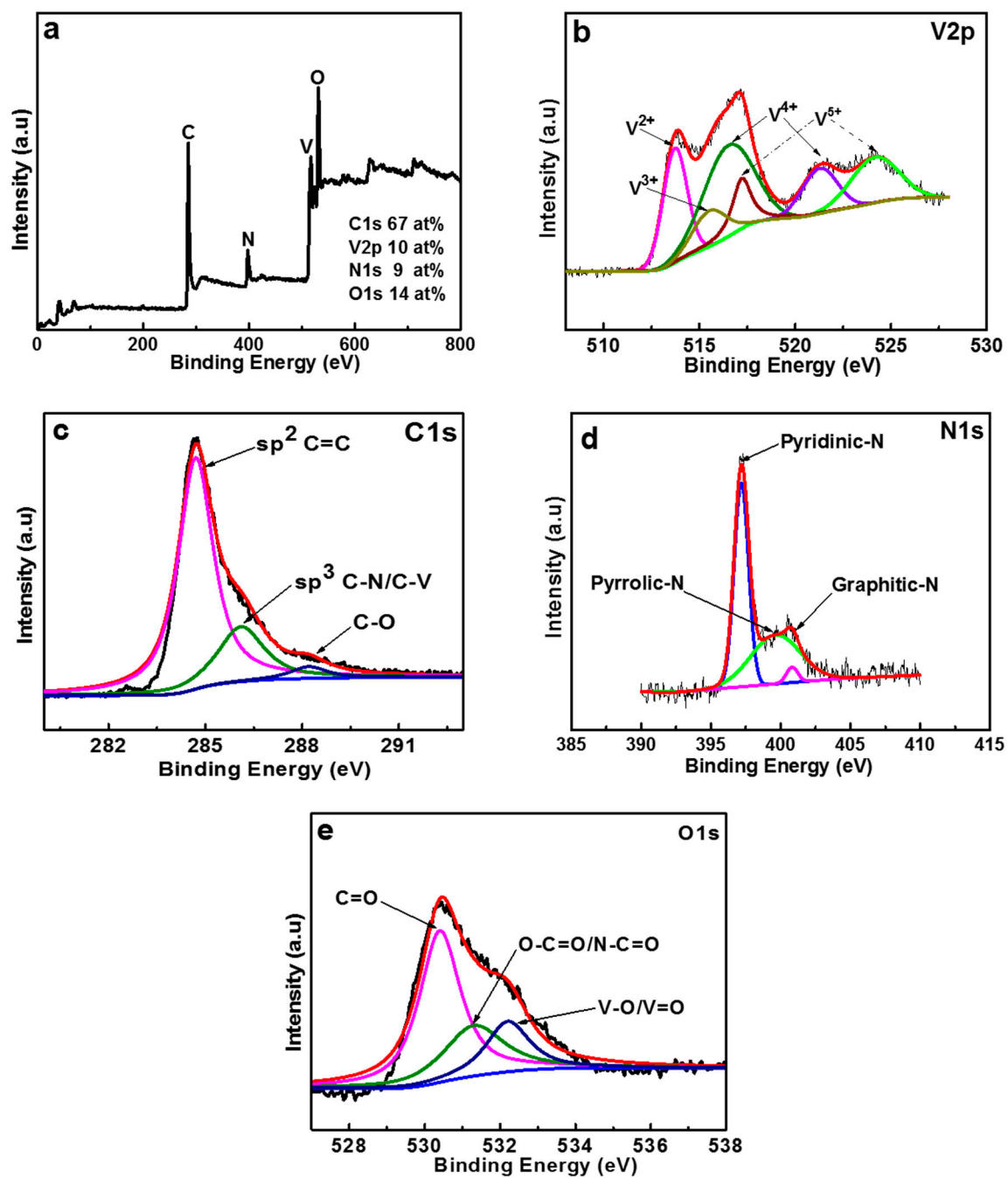


Figure S3: (a) Wide scan XPS spectrum of the C-V₂NO@800 °C materials, indicating deconvoluted spectra of (b) V2p binding energy region, (c) C1s binding energy region, (d) N1s binding energy region and (e) O1s binding energy regions, respectively.

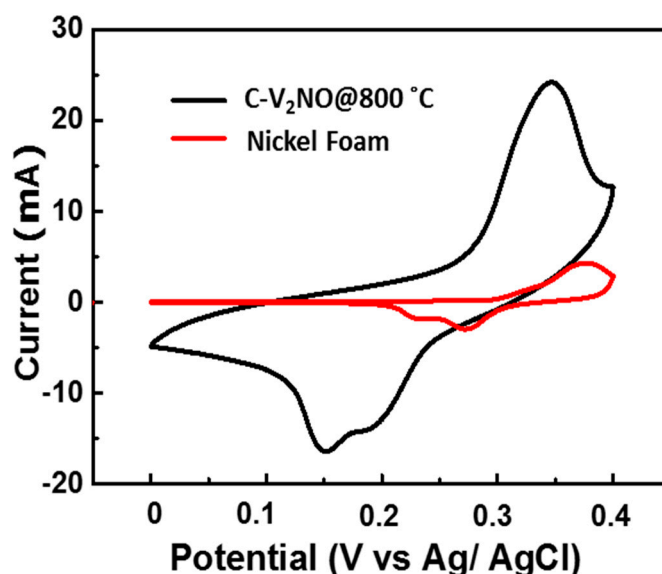


Figure S4: CV plot of the Ni foam and active material at a scan rate of 20 mV s^{-1}

Figure S3 shows the CV curves of nickel foam (NiF) and active material ($\text{C-V}_2\text{NO@800 } ^\circ\text{C}$) at a scan rate of 20 mV s^{-1} in a potential window range of 0–0.4 V. As clearly observed, the CV curve of the active materials presents a superior current response as compared to the CV plot of the current collector. This high current response of the $\text{C-V}_2\text{NO@800 } ^\circ\text{C}$ confirms that the current collector (NiF) does not show an effect on the electrochemical performance of the $\text{C-V}_2\text{NO@800 } ^\circ\text{C}$ nanomaterials.

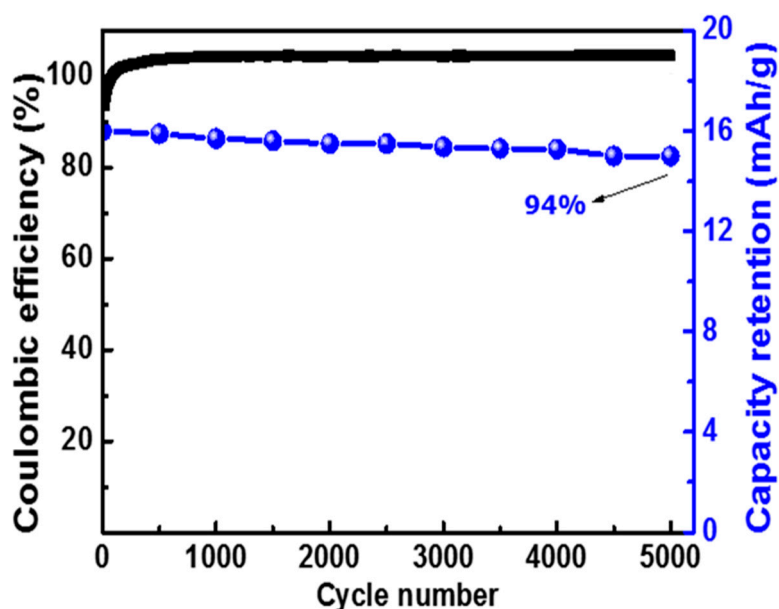


Figure S5: Coulombic efficiency and capacity retention as a function of cycle number at a specific current of 10 A g^{-1} $\text{C-V}_2\text{NO@800 } ^\circ\text{C}$