

Supplementary Information

Niobium-oxide based octahedral molecular sieves as novel anode materials for sodium-ion batteries

Y Bhaskara Rao, Naser Tavajohi*, C. André Ohlin*

Department of Chemistry, Umeå University, Umeå 90187, Sweden

*Corresponding authors: naser.tavajohi@umu.se, andre.ohlin@umu.se

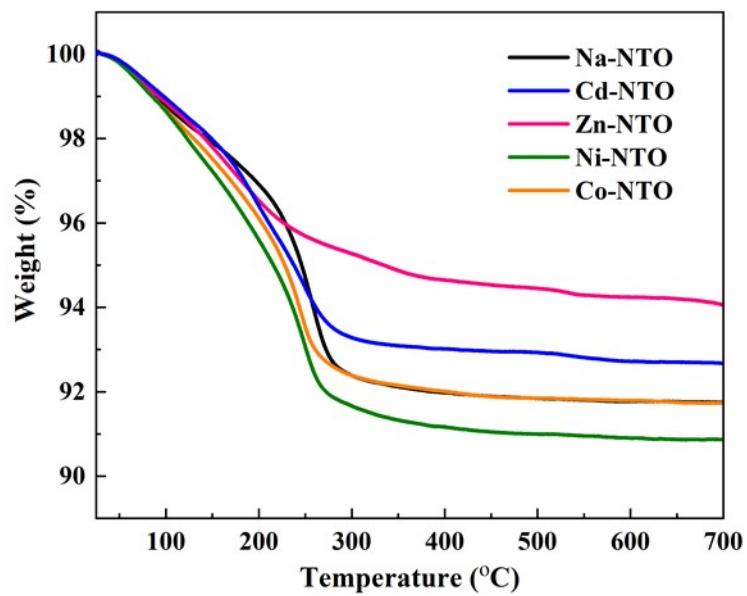


Figure S1. TGA spectra of Na-NTO, Cd-NTO, Zn-NTO, Ni-NTO, and Co-NTO materials.

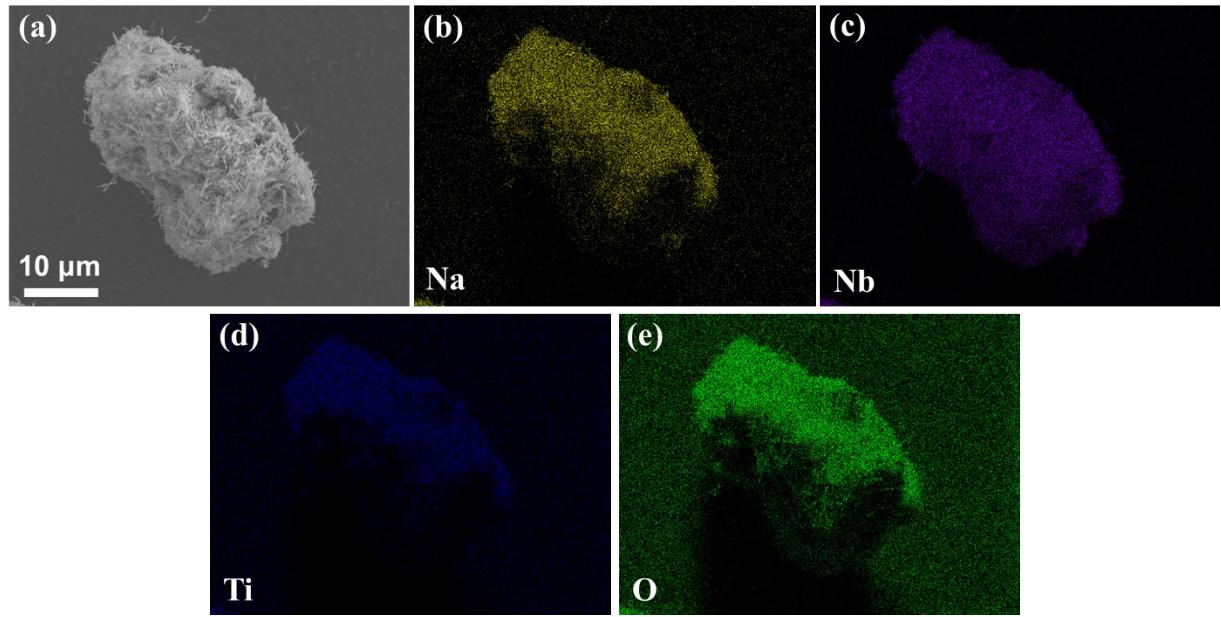


Figure S2. EDX images of Na-NTO material.

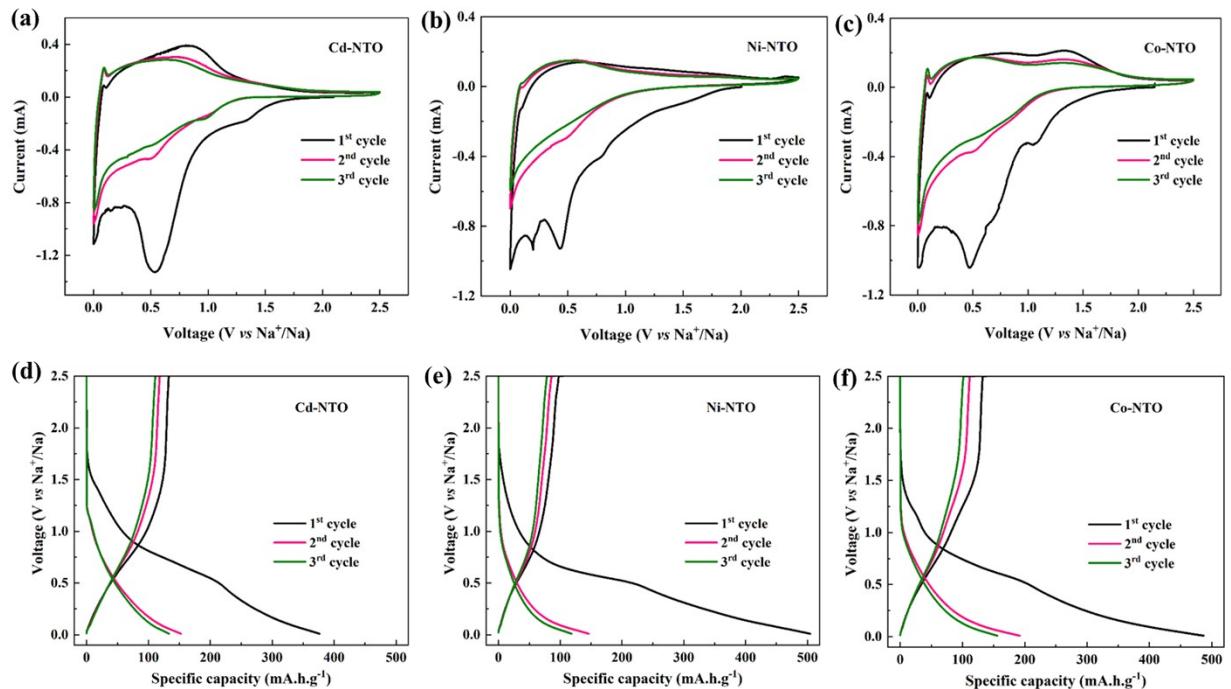


Figure S3. Cyclic voltammetry and galvanostatic charge-discharge curves of (a and d) Cd-NTO, (b and e) Ni-NTO and (c and f) Co-NTO materials for the first three cycles.

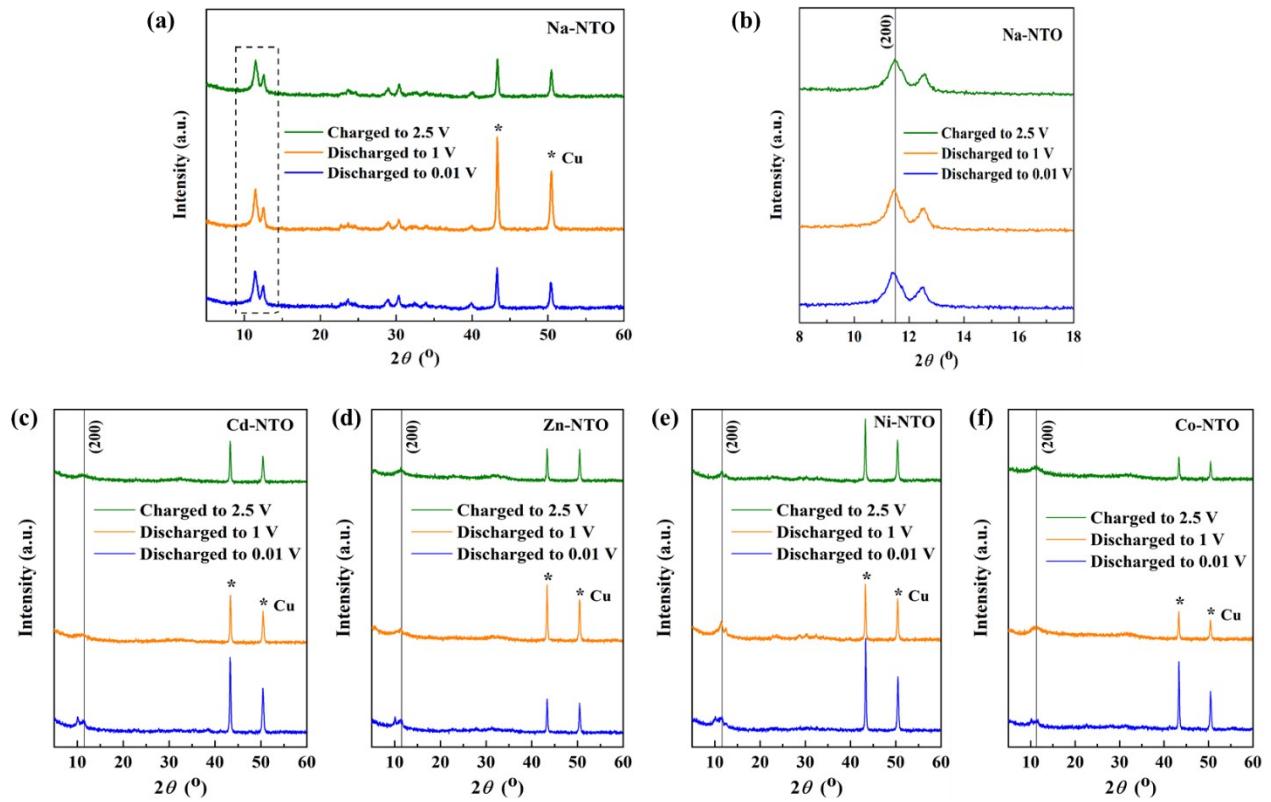


Figure S4. **a)** *Ex-situ* XRD patterns, and **b)** enlarged view of (200) diffraction peak for Na-NTO electrode, and *ex-situ* XRD patterns of **c)** Cd-NTO, **d)** Zn-NTO, **e)** Ni-NTO and **f)** Co-NTO electrodes at different charge/discharge states.

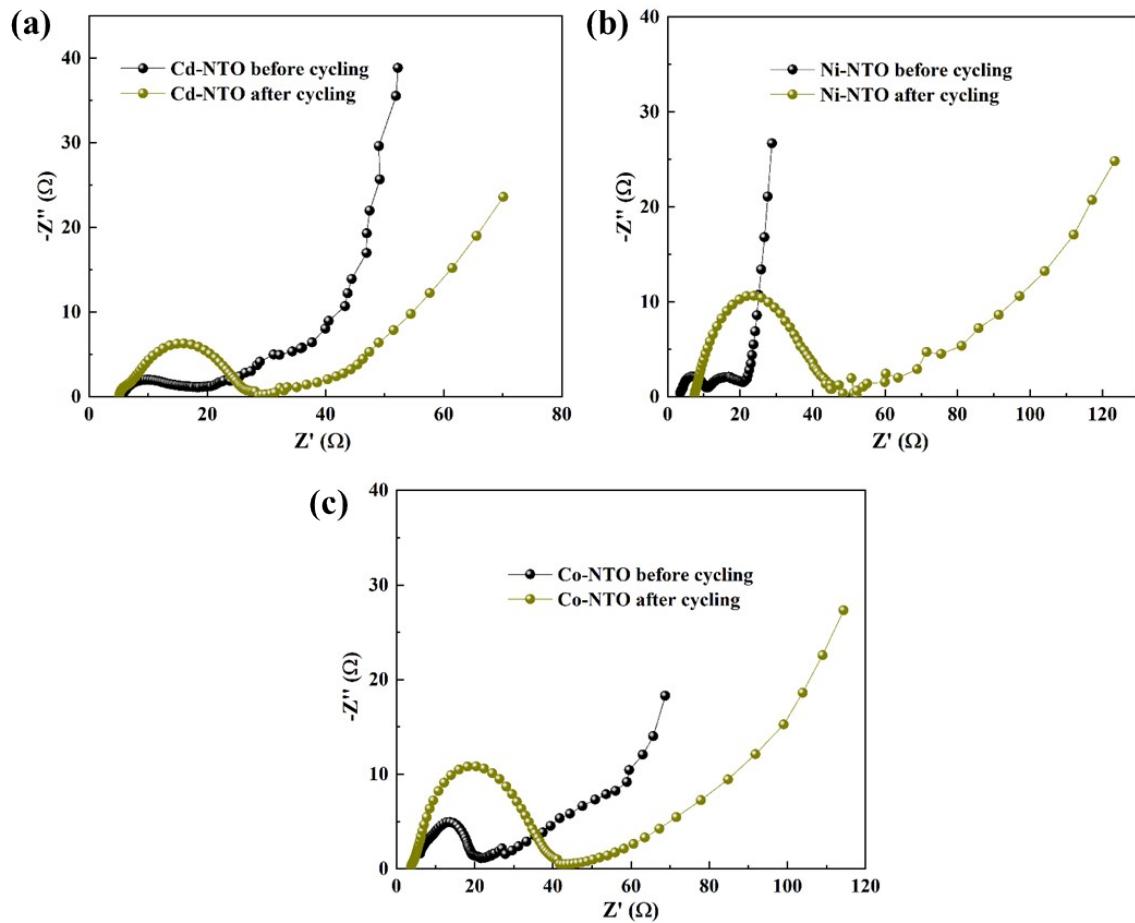


Figure S5. Nyquist plots of **a)** Cd-NTO, **b)** Ni-NTO and **c)** Co-NTO materials, before and after cycling.

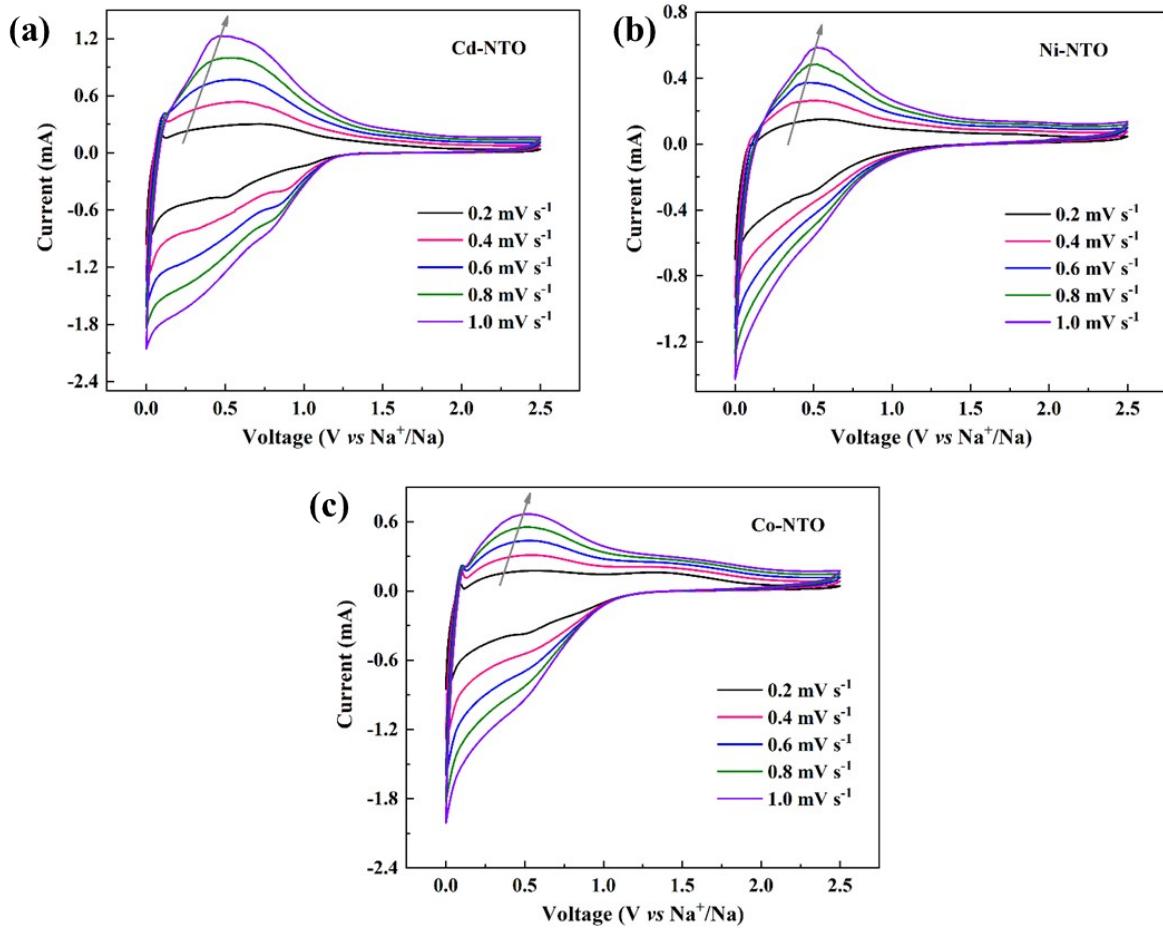


Figure S6. Cyclic voltammogram at various scan rates for **a)** Cd-NTO, **b)** Ni-NTO and **b)** Co-NTO materials.