## Cerium vanadate nanoparticles as a new anode material for lithium ion batteries

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Fig. S1. Coulomb efficiency curves of CeVO<sub>4</sub> at current densities of 10 and 100 mA/g.



Fig. S2. Nyquist plots of CeVO<sub>4</sub> before and after cycles (a), and Nyquist plots of CeVO<sub>4</sub> after 10 cycles at various potentials (b).



Fig. S3. The *in situ* XRD patterns of CeVO<sub>4</sub> at a current density of 80 mA/g between 0.05 and 2.0 V.