

Supporting Information for:

**Facile fabrication of a nanoporous silicon electrode with superior stability for lithium
ion batteries**

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Figure S1. Thermalgravimetric analysis (TGA) and differential thermal gravimetry (DTG) plots of triethanolamine (10 °C min⁻¹, 100 mL min⁻¹, Ar atmosphere).

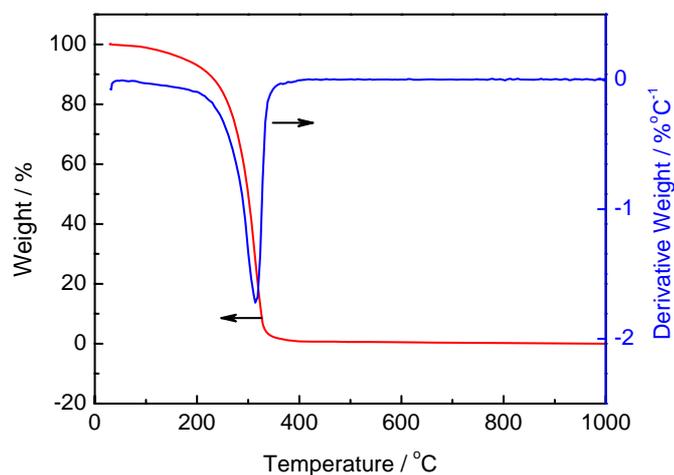


Figure S2. Experimental O1s XPS spectrum of the nano-Si powders. The best fit result is also given.

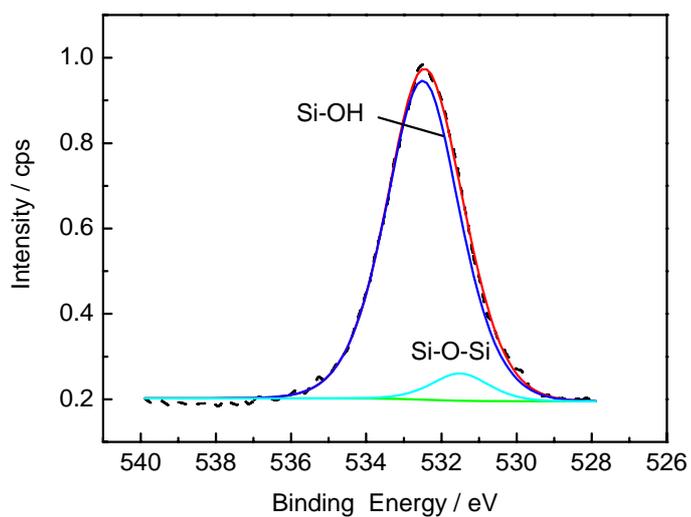


Figure S3. SEM image (A) and elemental map of N (B) for the precursor electrode (before heat treatment), and SEM image (C) and elemental map of N (D) for the nanoporous Si electrode (after heat treatment). Scale bar: 5 μ m.

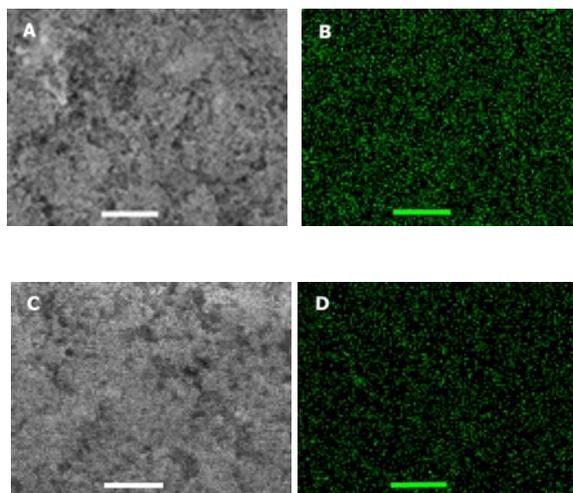


Figure S4. EDX spectrum of the nanoporous Si electrode.

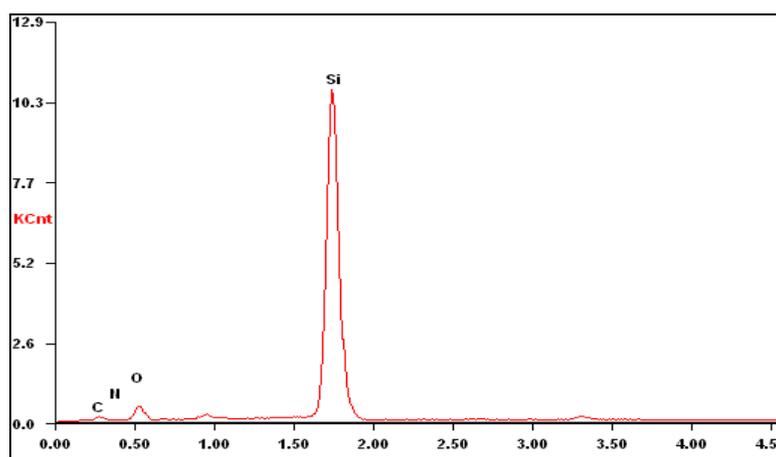


Figure S5. The discharge capacity and Coulombic efficiency profiles of the conductive carbon black, TEA residues and CMC binder between 1.5 and 0.02 V

