

## ***Supporting Information***

### **Facile synthesis of CuO nanochains as high-rate anode materials for lithium-ion batteries**

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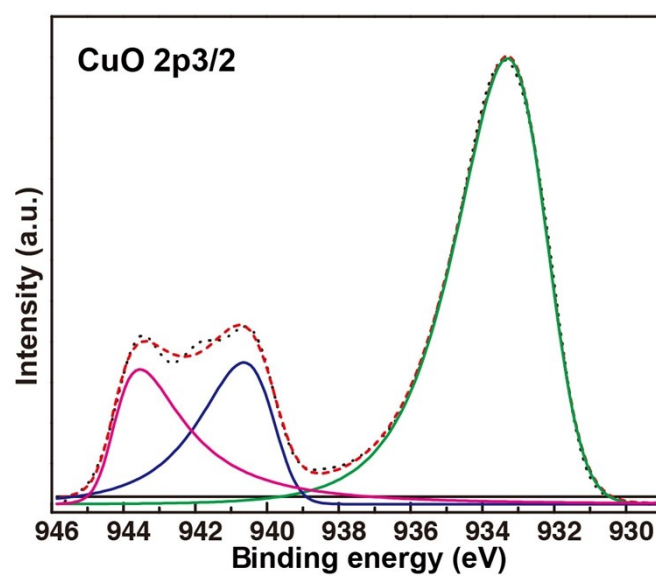
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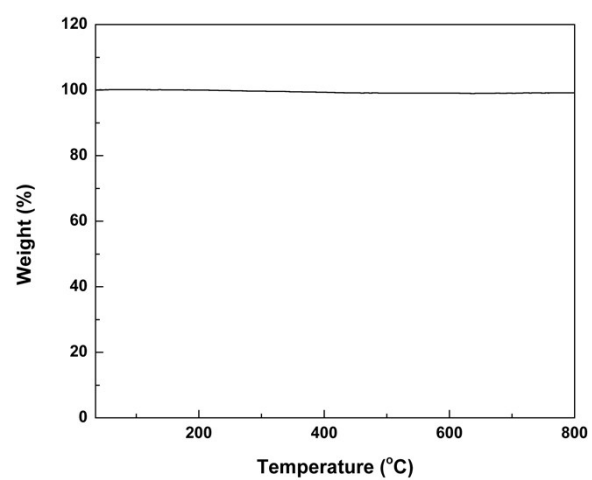
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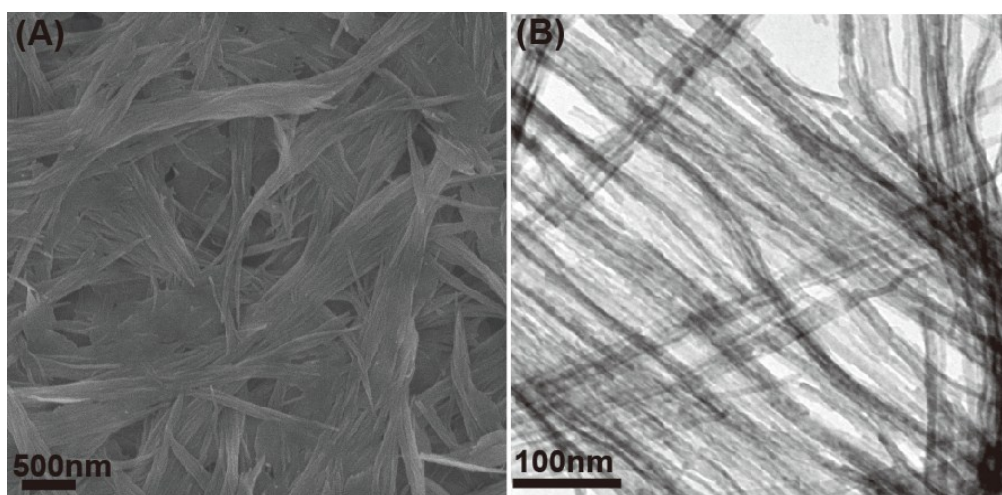
P. W. and X.-X. G. contributed equally to this work.



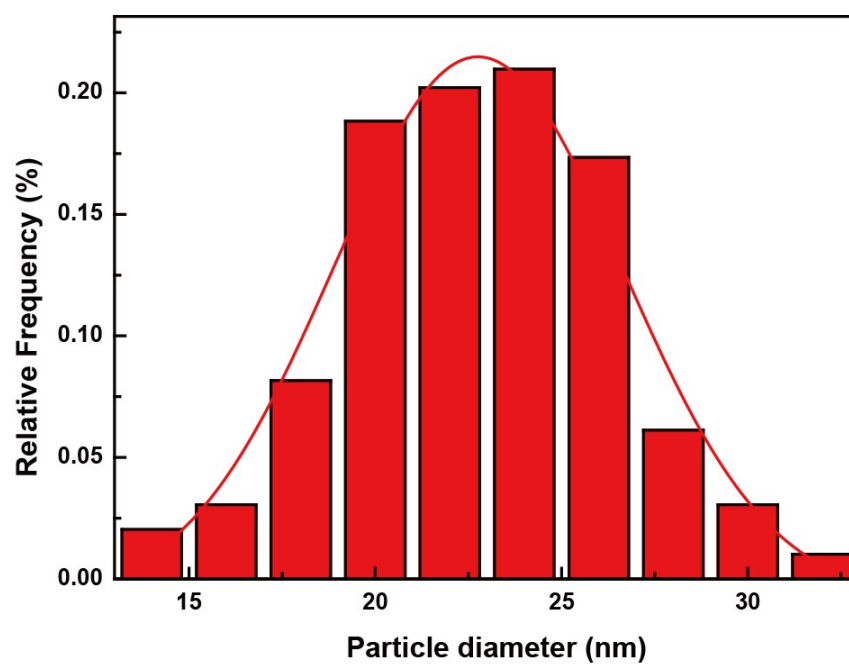
**Figure S1.** XPS spectrum of the CuO nanochains curve-fitting spectrum of Cu 2p  $3/2$ .



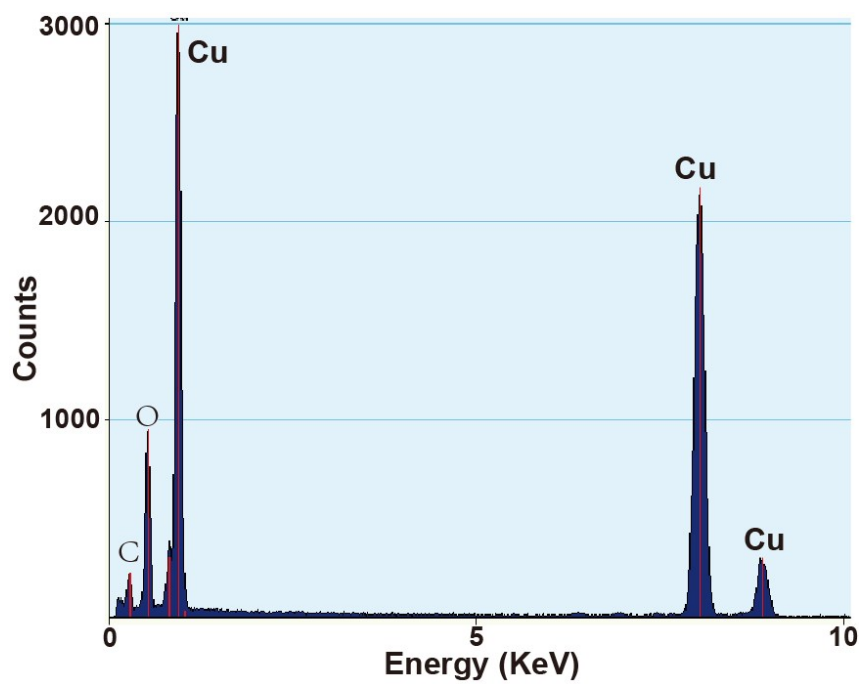
**Figure S2.** TGA profile of CuO nanochains. The sample was tested under air atmosphere from room temperature to 800 °C at a heating rate of 10 °C min<sup>-1</sup>.



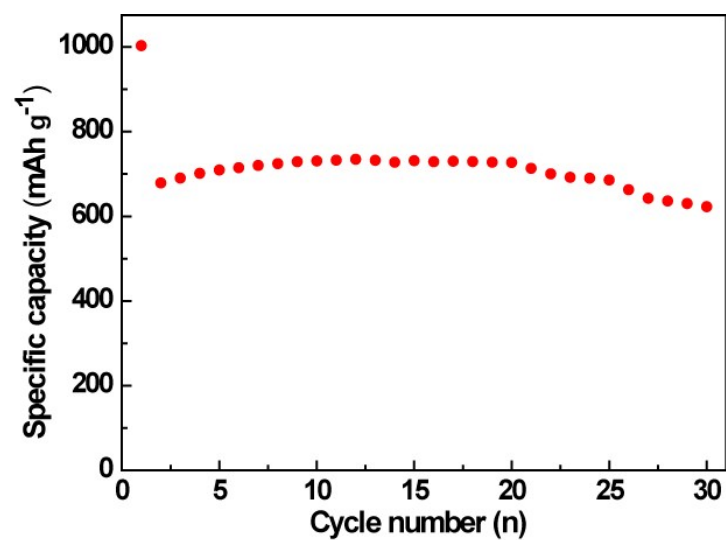
**Figure S3.** Morphological characterization of the precursor: (A) SEM image; (B) TEM image.



**Figure S4.** Statistical analysis on particle diameter of CuO nanochains.



**Figure S5.** EDX compositional pattern of CuO nanochains.



**Figure S6.** Cycling performance of the CuO nanochains electrode at 0.1 C. All the electrodes were tested between 0.001 and 3.0 V (vs. Li<sup>+</sup>/Li).