

## Supplementary Information

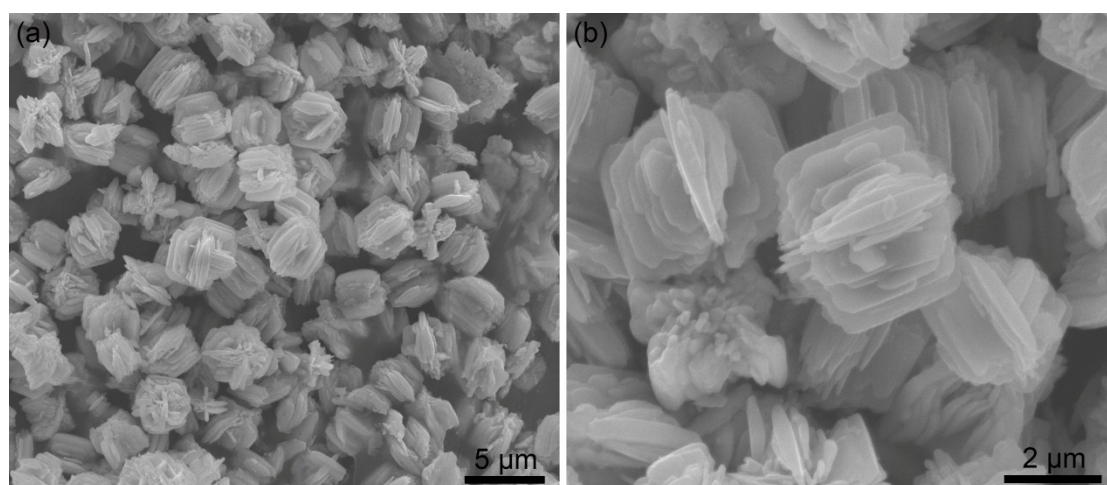
### Hydrothermal synthesis of well-crystallized CuO hierarchical structures and their direct application in high performance lithium-ion battery electrodes without further calcination

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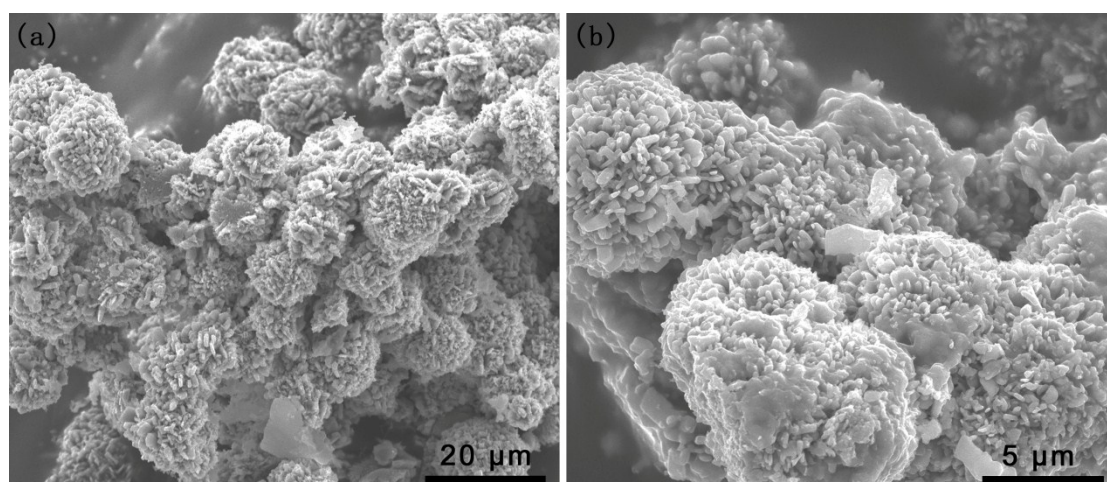
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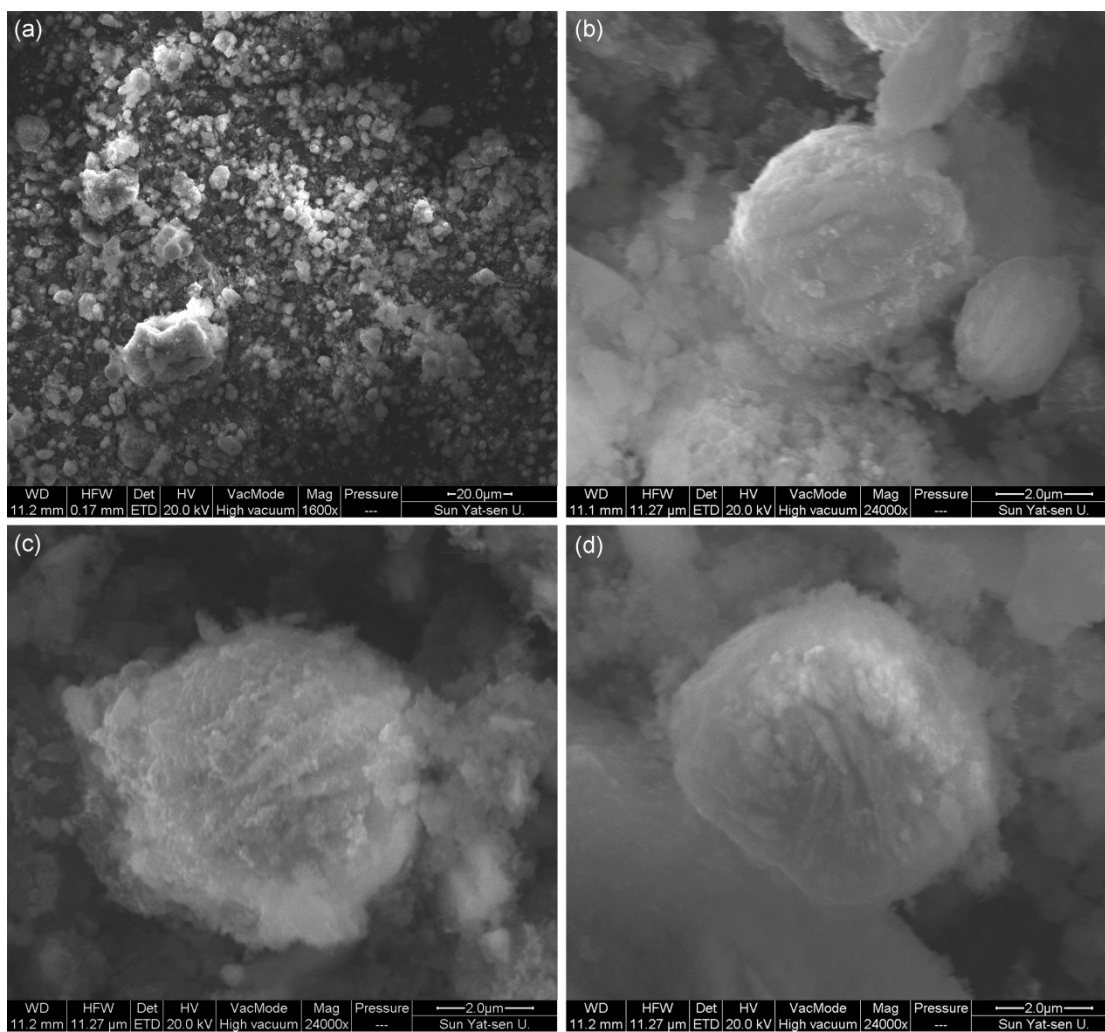
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**Fig. S1** SEM images of calcined CuO hierarchical structures obtained after annealing at 500 °C for 3 h. (a) low magnification; (b) high magnification.



**Fig. S2** SEM images of CuO nanosheet aggregates obtained by the direct combustion of copper nitrate powder at 600 °C for 2 h. (a) low magnification; (b) high magnification.



**Fig. S3** FESEM images of uncalcined CuO hierarchical structures after 100 cycles at a current density of 2 C.