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Abstract

We have investigated a tunnel-type β -FeOOH cathode material for rapid sodium storage. Rietveld refinement of the X-ray diffraction (XRD) data obtained for β -FeOOH indicated that the structure was stabilized into $[2 \times 2]$ hollandite tunnel structure, and the adhesion of the β -FeOOH onto carbon nanotubes (CNTs) led to a high electrical conductivity of 3 S cm^{-1} . As a result, the β -FeOOH/CNTs composite electrode showed excellent electrode performance, with a discharge capacity of 205 mAh g^{-1} and a coulombic efficiency of 88.5% in the voltage

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