

**Metallic Sb nanoparticles embedded into yolk-shell  $\text{Sb}_2\text{O}_3@\text{TiO}_2$  composite as anode materials for lithium ion batteries**

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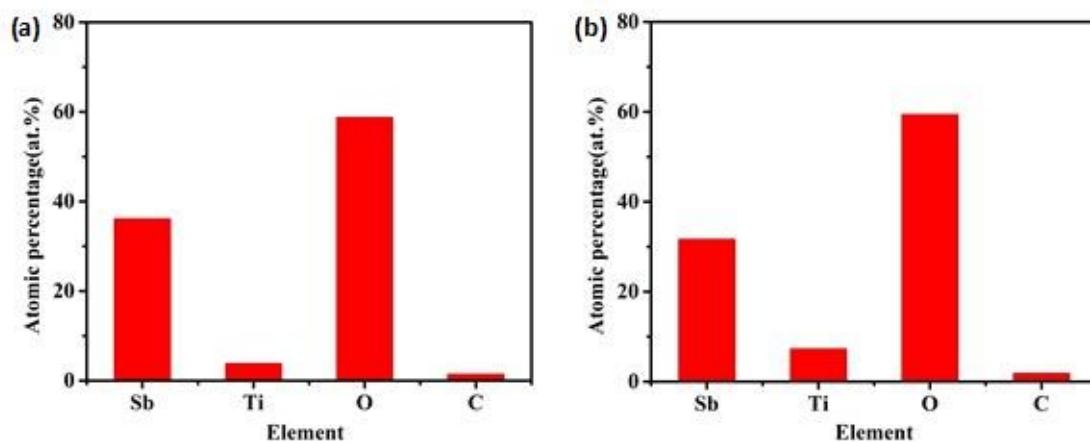


Fig. S1 The atomic percentage of (a)  $\text{Sb}_2\text{O}_3/\text{Sb}@\text{TiO}_2$ -1 and (b)  $\text{Sb}_2\text{O}_3/\text{Sb}@\text{TiO}_2$ -2 composites.

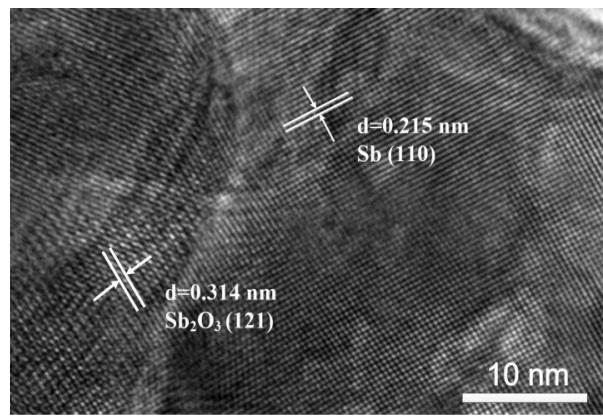


Fig. S2 HRTEM image of the Sb<sub>2</sub>O<sub>3</sub>/Sb@TiO<sub>2</sub>-1 composite.

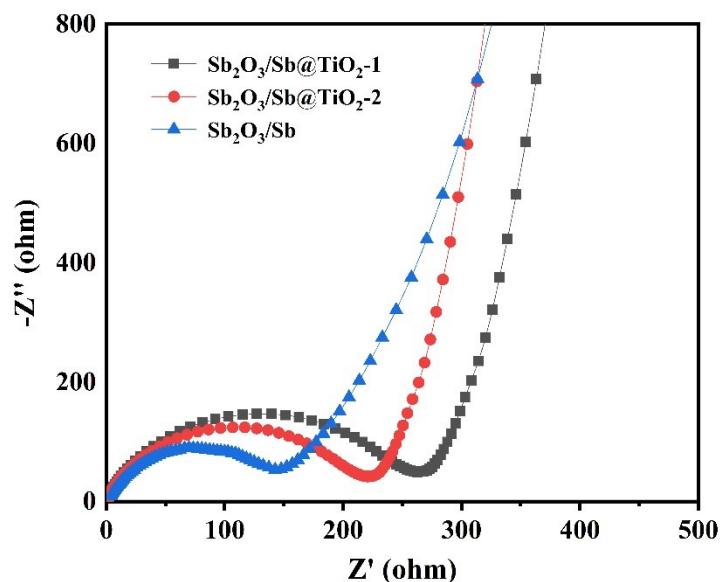


Fig. S3 Electrochemical impedance spectra of Sb<sub>2</sub>O<sub>3</sub>/Sb , Sb<sub>2</sub>O<sub>3</sub>/Sb@TiO<sub>2</sub>-1 and Sb<sub>2</sub>O<sub>3</sub>/Sb@TiO<sub>2</sub>-2 composites.

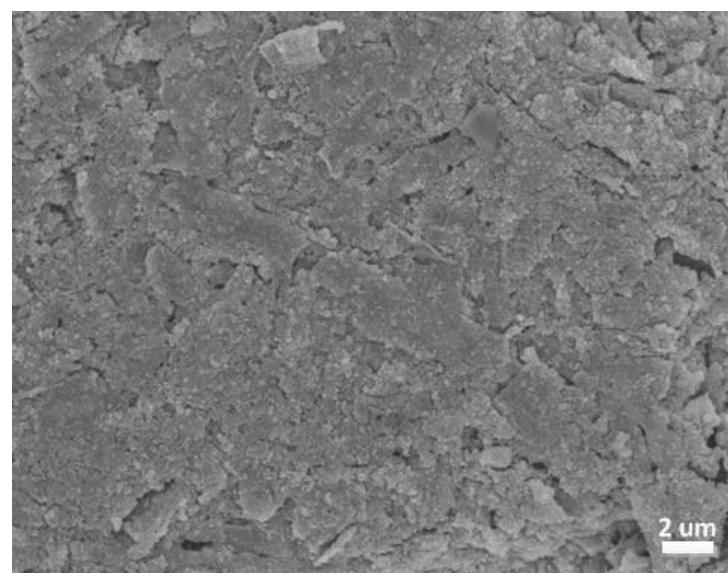


Fig. S4 The SEM image of the Sb<sub>2</sub>O<sub>3</sub>/Sb@TiO<sub>2</sub>-2 composite after 100 cycles at a current density of 100 mA g<sup>-1</sup>.