

Supporting Information

Multi-geometric carbon encapsulated SnP₃ composite for superior lithium/potassium ion batteries

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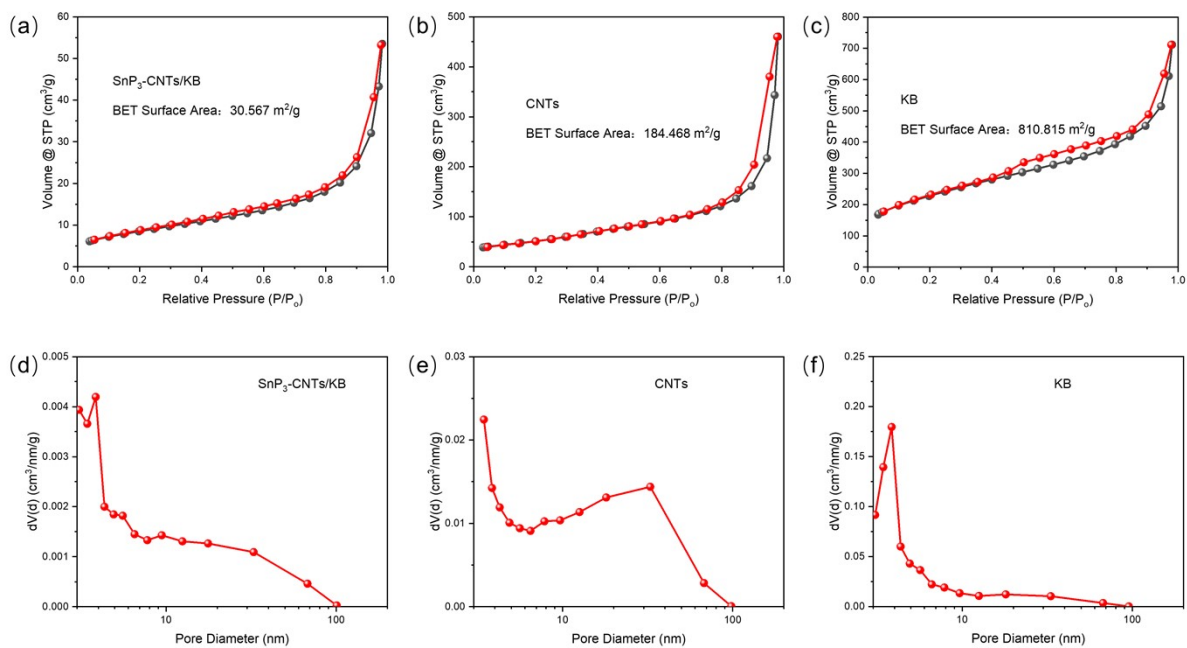


Figure S1. N₂ adsorption-desorption isotherms of (a) SnP₃-CNTs/KB composite, (b) CNTs, and (c) KB. The pore size distribution of (d) SnP₃-CNTs/KB composite, (e) CNTs, and (f)

KB.

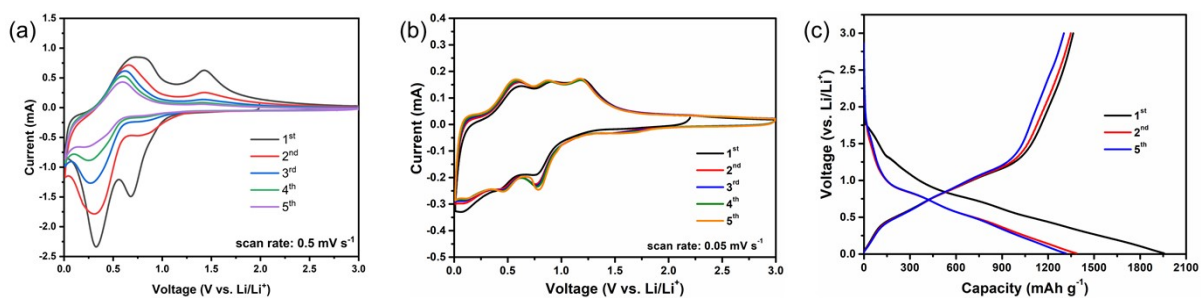


Figure S2. First five cycles of cyclic voltammograms of the as-prepared (a) SnP₃ particles at 0.5 mV s⁻¹ and (b) SnP₃-CNTs/KB composite at 0.05 mV s⁻¹ in LIBs. (c) The 1st, 2nd, and 5th galvanostatic charge/discharge curves of the as-prepared SnP₃-CNTs/KB composite at 50 mA g⁻¹ in LIBs.

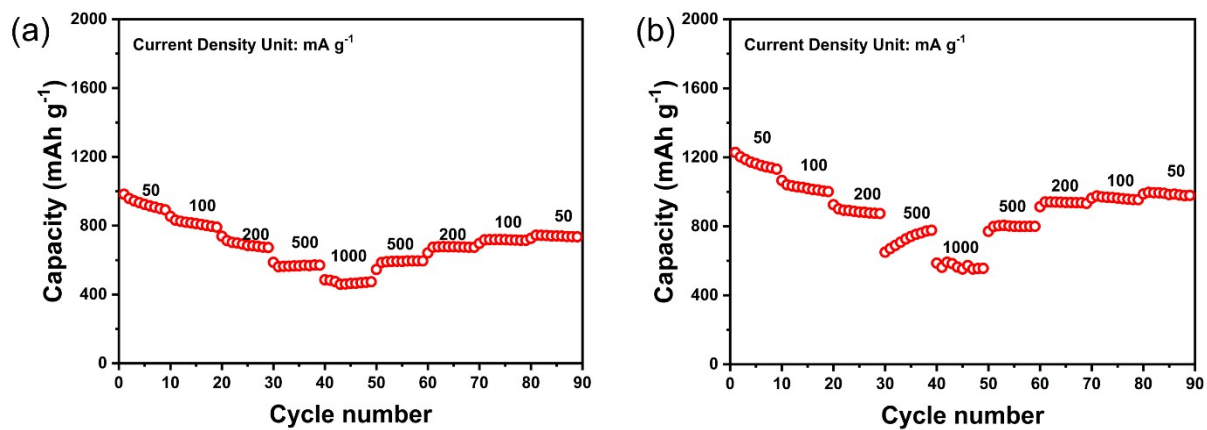


Figure S3. Rate performance of the (a) SnP₃-CNTs composite and (b) the SnP₃-KB composite.

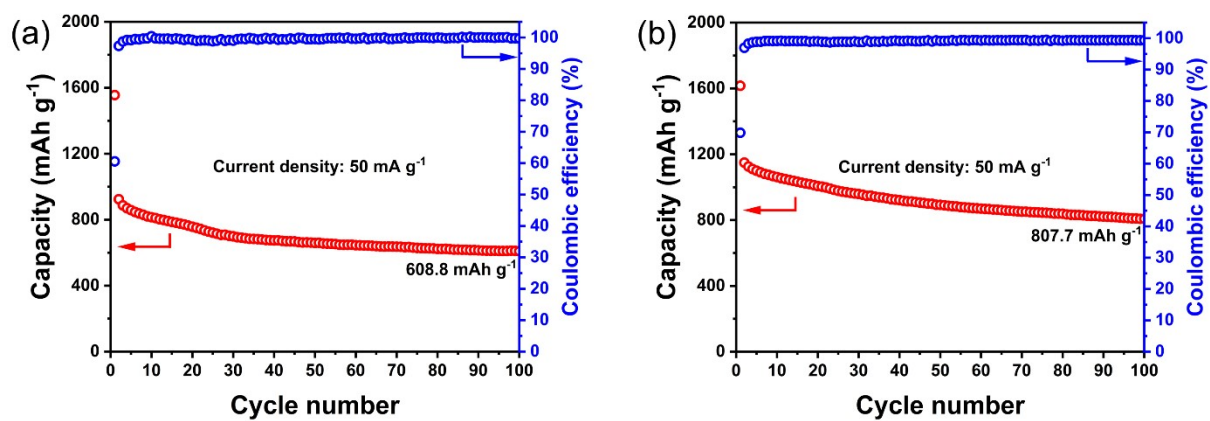


Figure S4. Cycling performance of the (a) SnP₃-CNTs composite and (b) the SnP₃-KB composite at 50 mA g⁻¹.

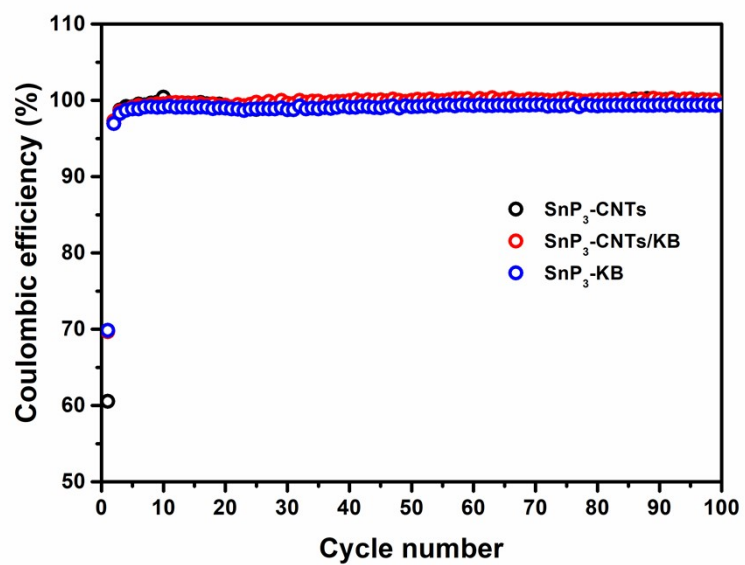


Figure S5. Coulombic efficiencies of SnP₃-CNTs, SnP₃-CNTs/KB, and SnP₃-KB composites at 50 mA g⁻¹ in LIBs.

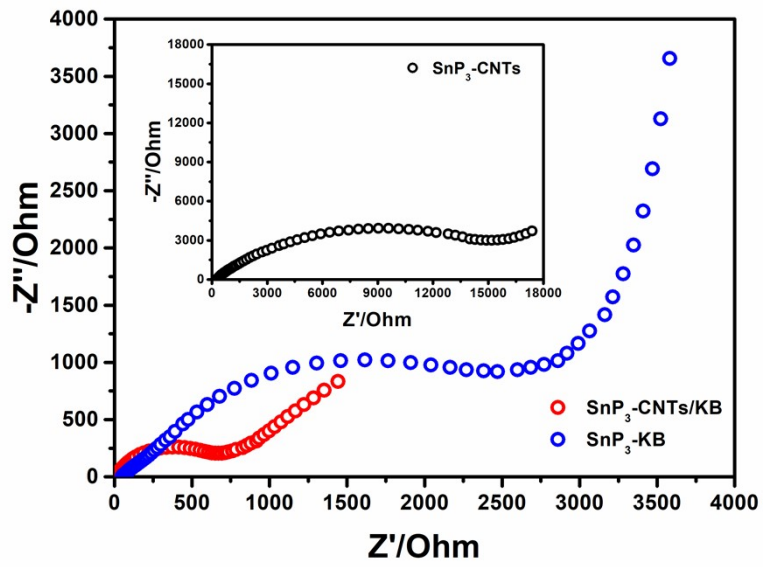


Figure S6. EIS Nyquist plots of SnP₃-CNTs (inset), SnP₃-CNTs/KB, and SnP₃-KB composites in LIBs.

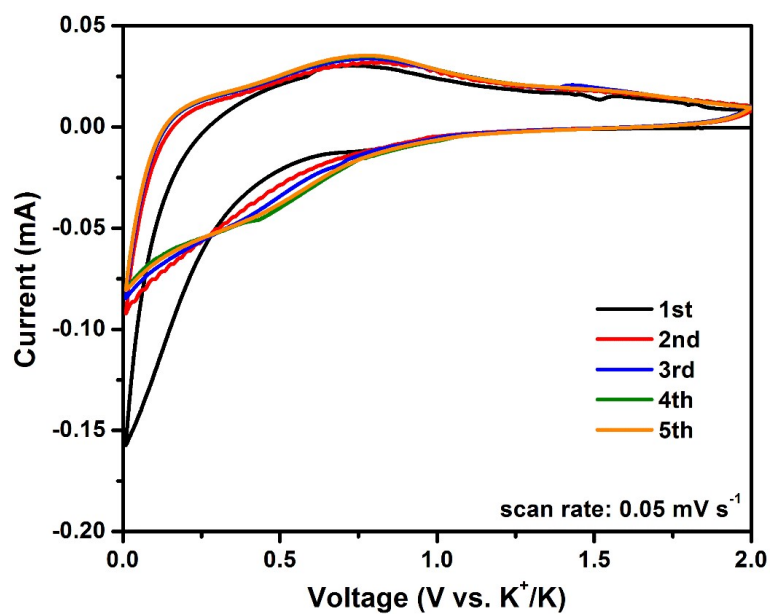


Figure S7. Cyclic voltammograms of first five cycles of the as-prepared SnP₃-CNTs/KB composite at 0.05 mV s⁻¹ in PIBs.