

Supporting Information

Three-dimensional macroporous antimony@carbon composite as a high-performance anode material for potassium-ion batteries

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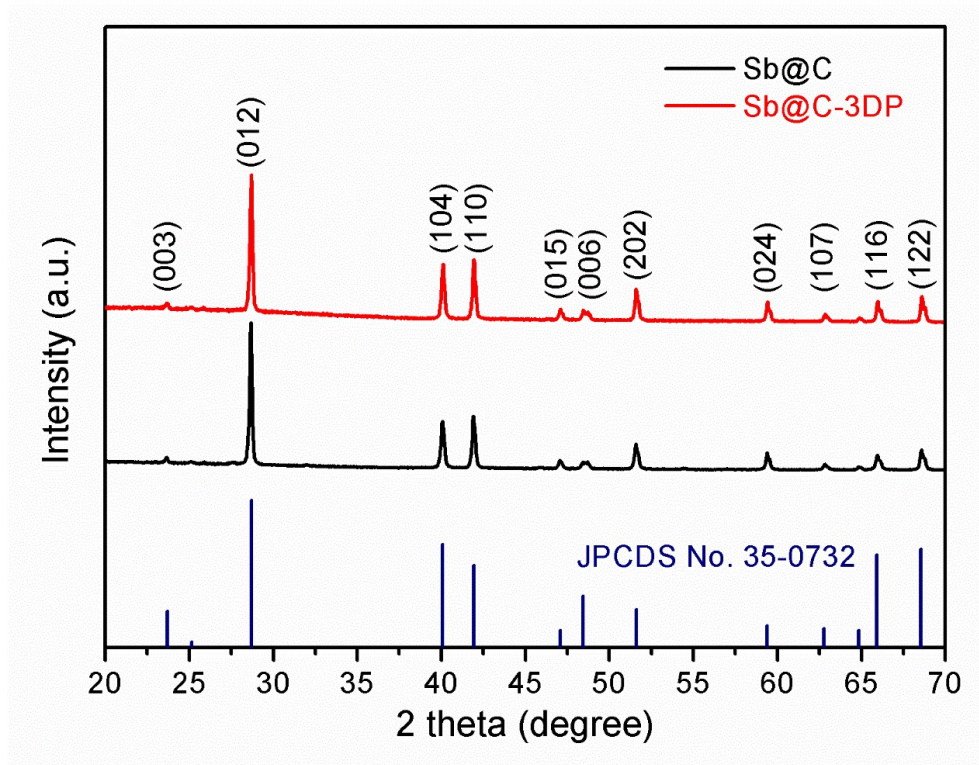


Fig. S1. XRD patterns of Sb@C and Sb@C-3DP.

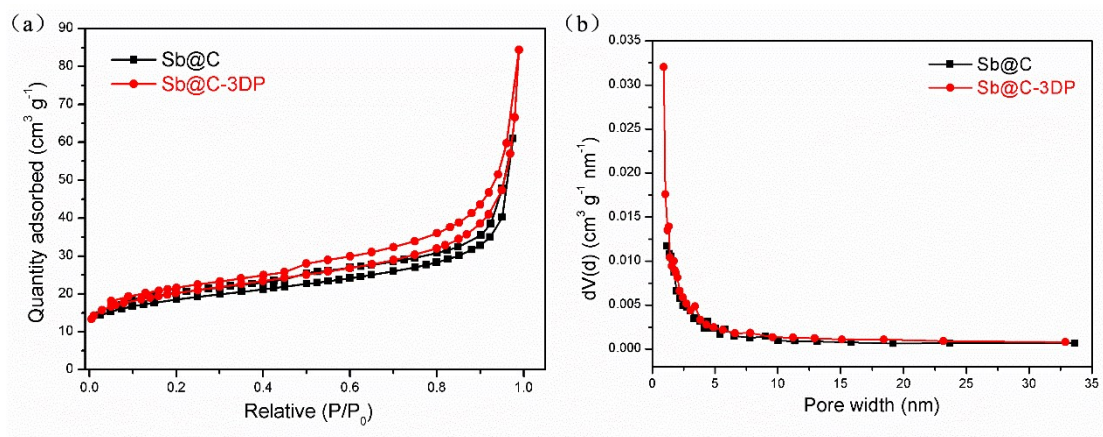


Fig. S2. (a) Nitrogen adsorption-desorption isotherms and (b) the pore size distribution of Sb@C and Sb@C-3DP.

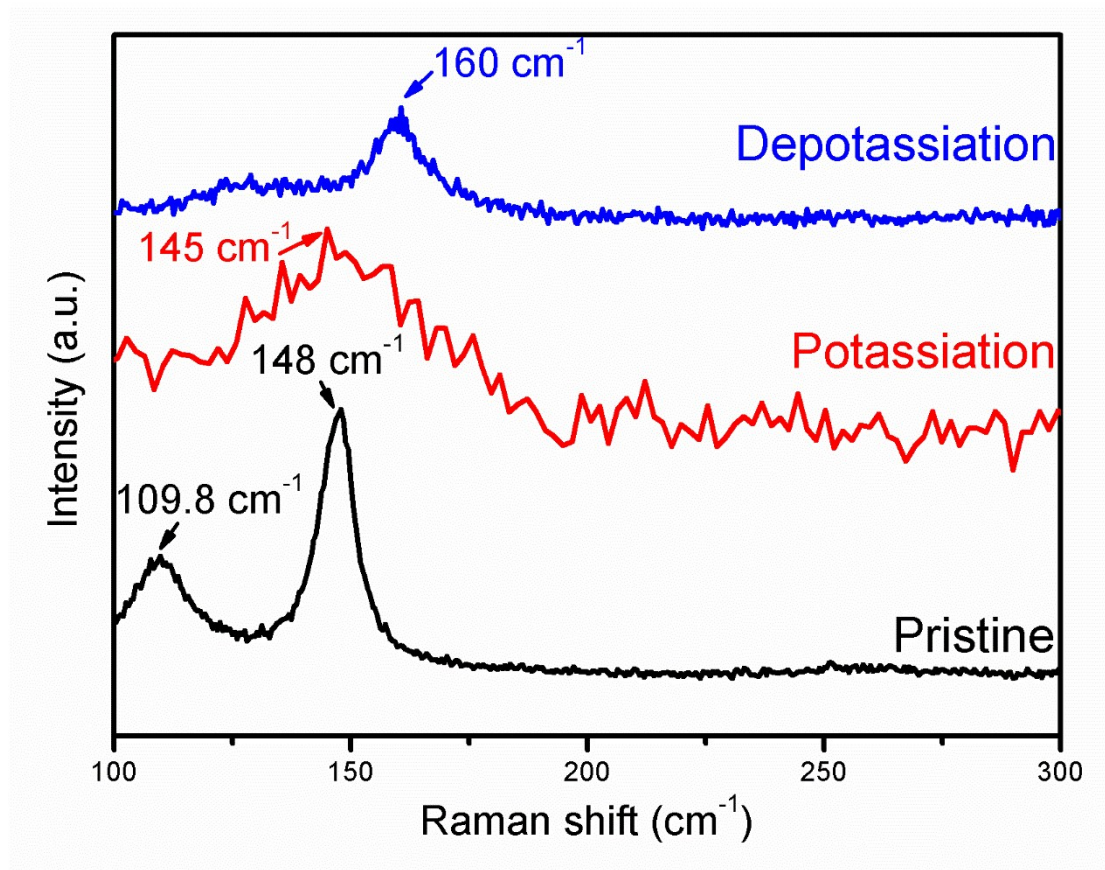


Fig. S3. EX situ Raman spectroscopy of the pristine Sb@C-3DP, potassiation and depotassiation electrode.

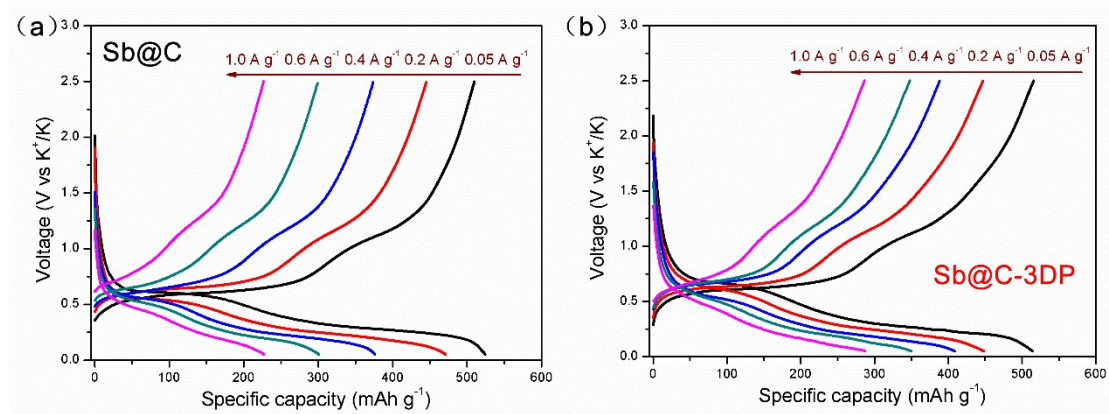


Fig. S4. Rate capabilities of (a) Sb@C and (b) Sb@C-3DP at various current densities from 0.05 to 1.0 A g^{-1} .

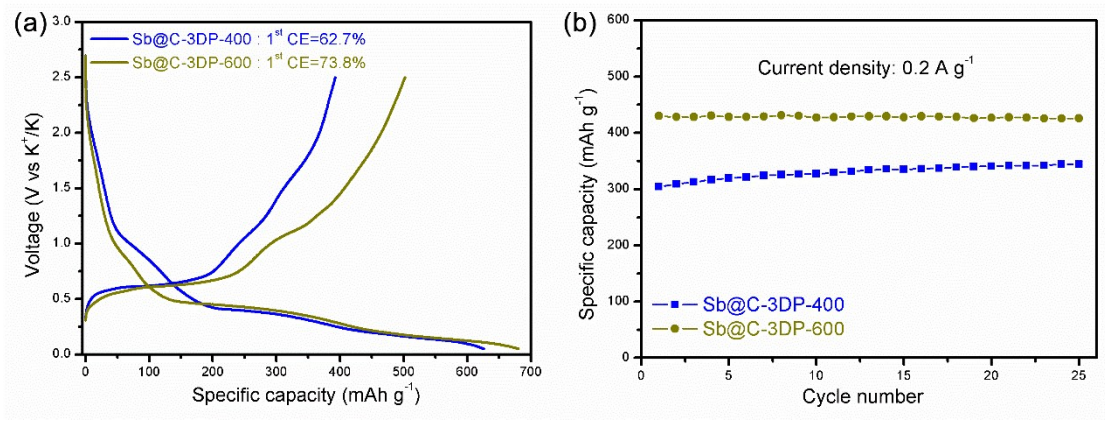


Fig. S5. Electrochemical performances of Sb@C-3DP-400 and Sb@C-3DP-600 electrode. (a) Initial discharge/charge curves at 0.05 A g⁻¹. (b) Cycling property at 0.2 A g⁻¹.

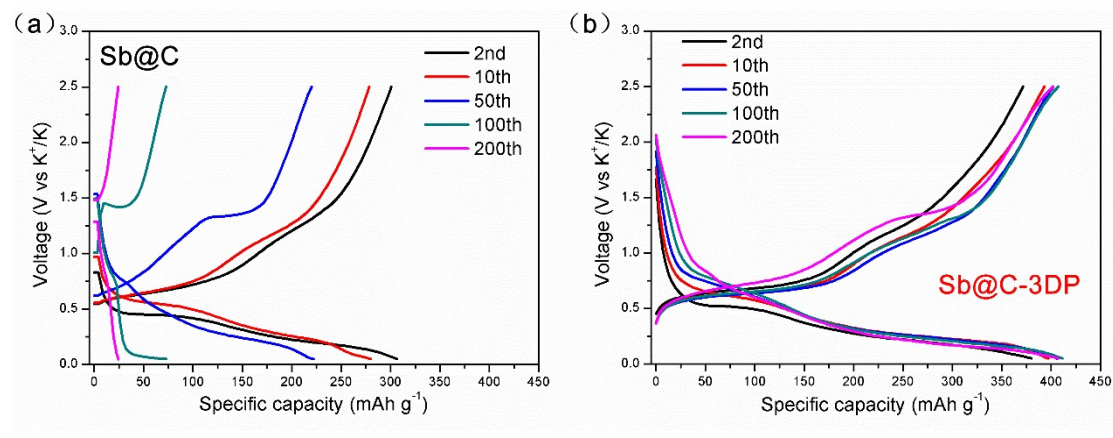


Fig. S6. Selected charge-discharge profiles of (a) Sb@C and (b) Sb@C-3DP at 0.5 A g⁻¹.

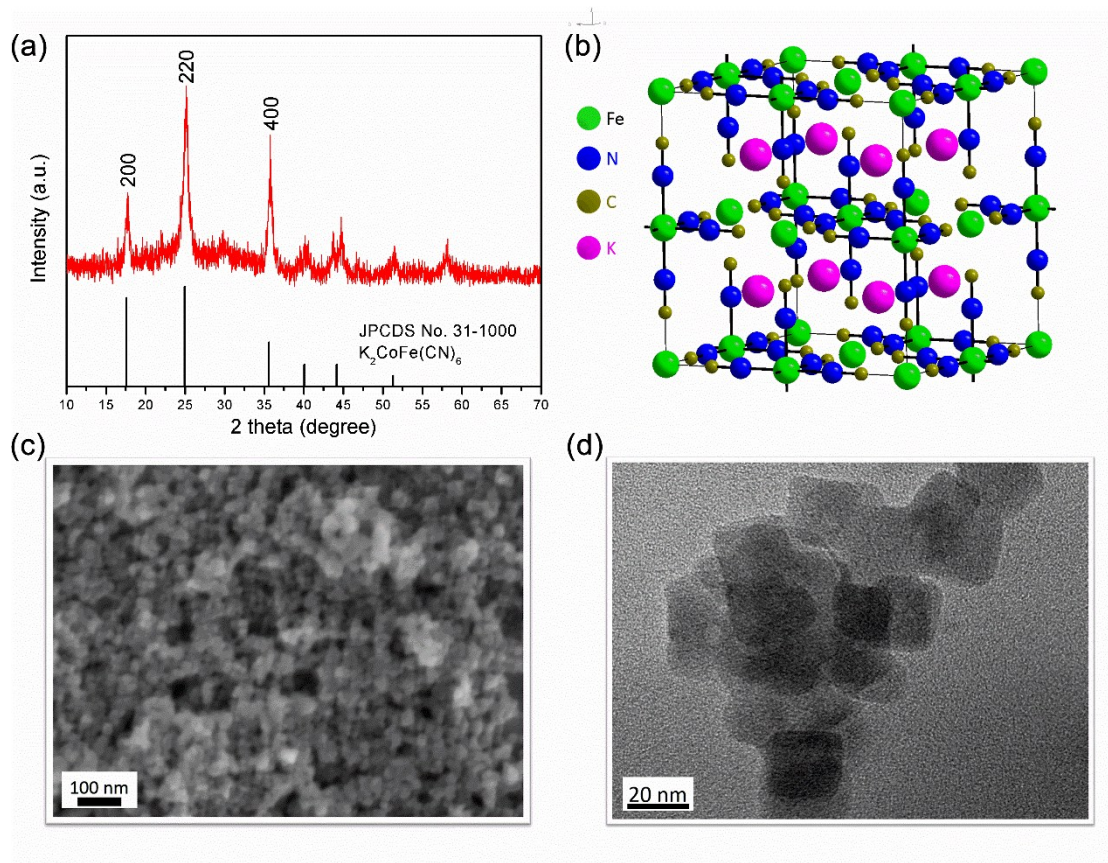


Fig. S7. The characterizations of KFeHCF cathode: (a) XRD pattern. (b) Crystal structure. (c) SEM image and (d) TEM image.

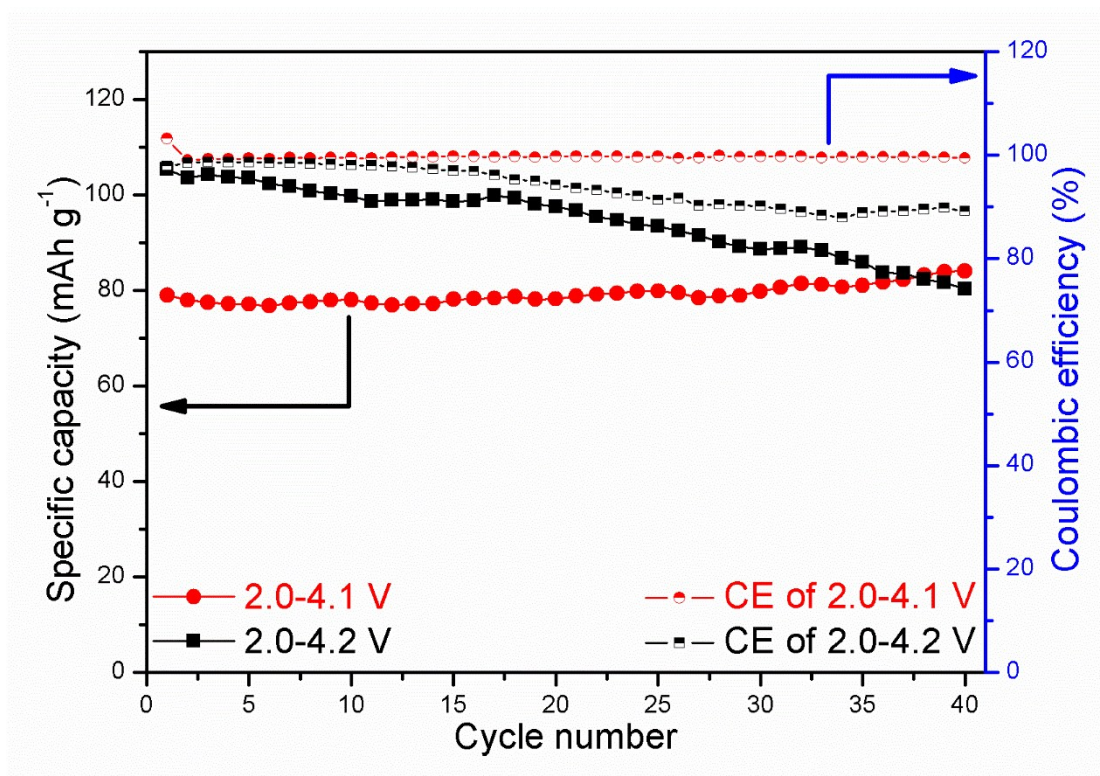


Fig. S8. Electrochemical performance of KFeHCF/K half-cells at different charge-discharge interval.