Supplementary data

N-doped pinecone-based carbon with hierarchical porous pie-like structure: A long-cycle-life anode material for potassium-ion batteries

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Figure S1. (a) element mapping of PC and (b) high-resolution TEM images of PC

Figure S2. High-resolution N 1s spectra of NPC.

Figure S3. Electrochemical performance of nitrogen-doped without ZnCl2 (nPC) pinecone-based carbon: (a) cyclic-voltammetry curves at 0.1 mV s\(^{-1}\) (b) galvanostatic charge/discharge profiles of first cycle at 50 mA g\(^{-1}\)
Figure S4. Electrochemical performances of commercial graphite (CG) and nitrogen-doped pinecone-based carbon (NPC): (a) cycle stability at 50 mA g$^{-1}$; (b) rate performance.

Figure S5. (a) SEM images of nPC in the fresh state and (b) in the 1000th cycle.