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Supporting Information

High Rate and Long Cycle Life Porous Carbon Nanofiber Paper Anodes for Potassium-Ion Batteries

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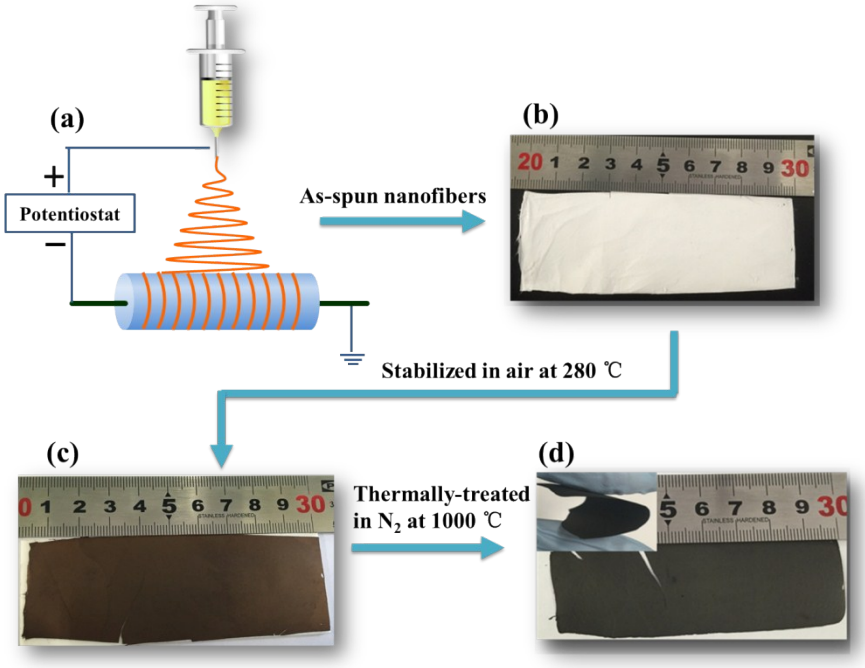

Figure S1. Schematic illustration of the preparation procedure of the porous CNF paper.

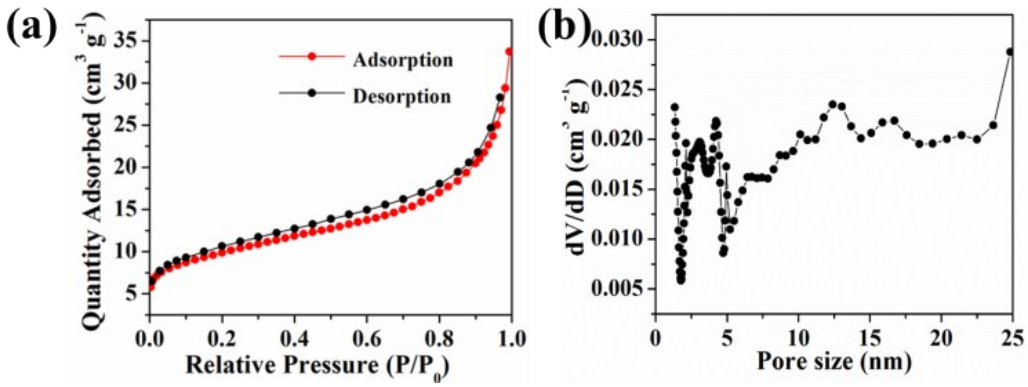

Figure S2.(a) N_2 adsorption/desorption isotherm curves and (b) the pore-size distribution of the porous CNFs.

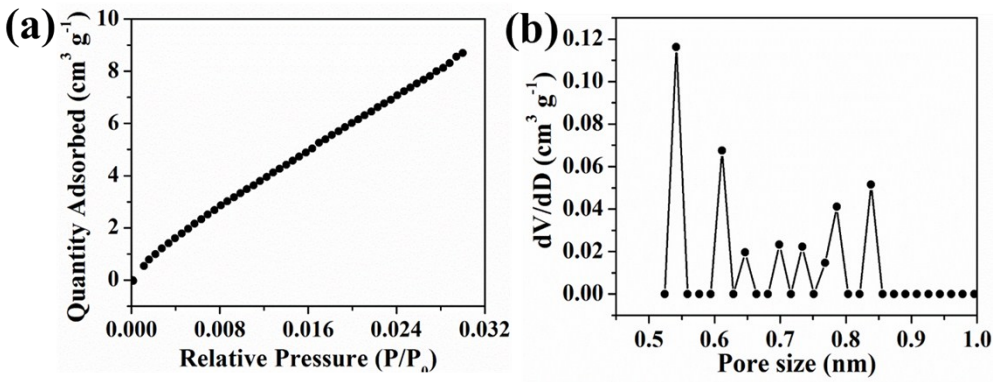

Figure S3 (a) CO_2 adsorption isotherm curve and (b) the pore-size distribution of the porous CNFs.

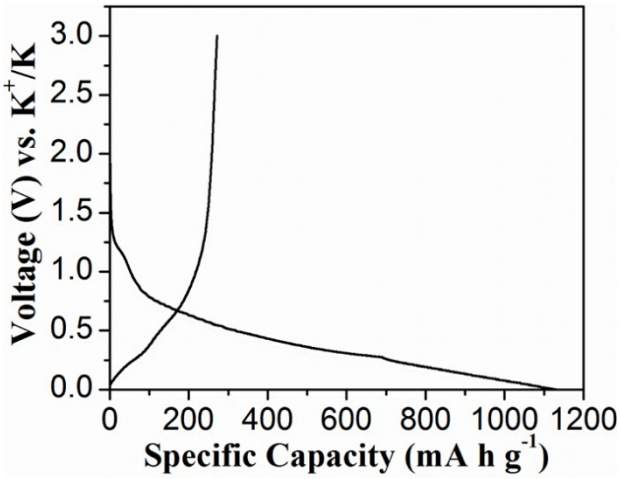

Figure S4. The initial charge/discharge profiles of the porous CNF anodes at 0.02 A/g between 0-3.0 V.

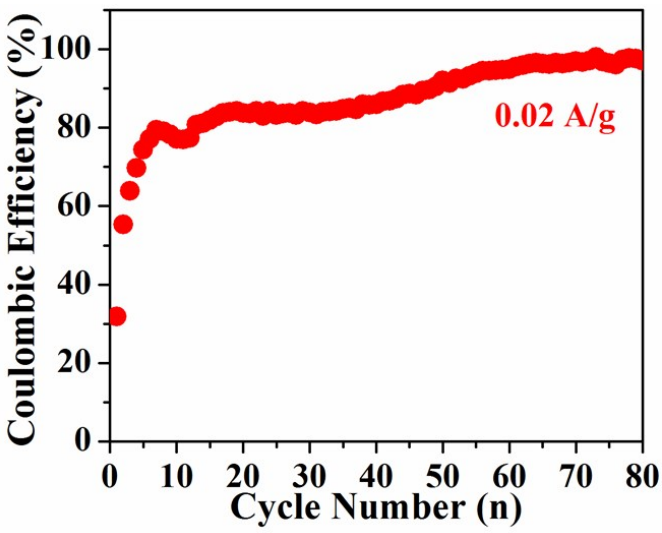

Figure S5. The Coulombic efficiency of the porous CNF anodes at 0.02 A/g.

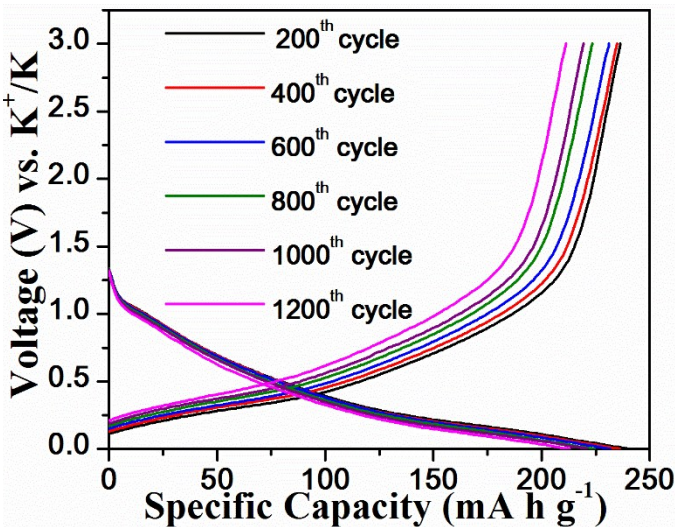

Figure S6. Voltage profiles of the porous CNF anodes cycled at 0.2 A/g between 0-3.0 V.

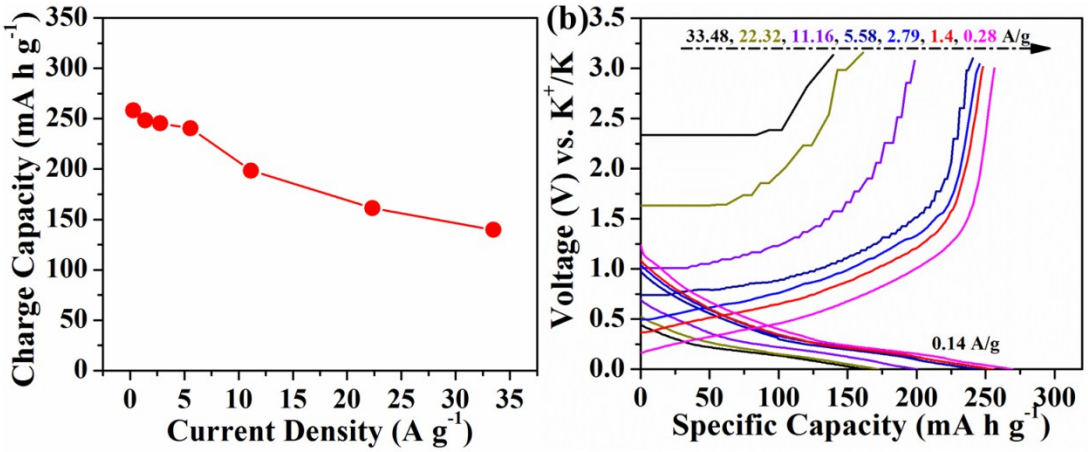

Figure S7. (a) Rate capability and (b) voltage profiles of the CNF anodes at discharge current of 0.14 A/g and different charge current densities in KIBs.

Figure S8. Photograph of the Celgard separator after 563 cycles with the CNF anodes in KIBs.

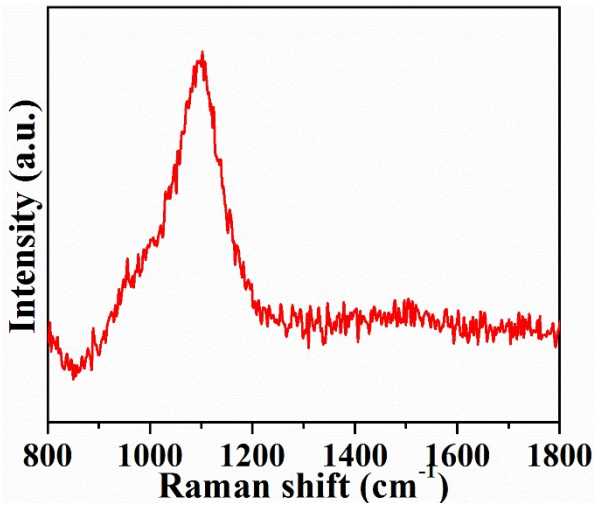

Figure S9. Raman spectrum of the yellow products on the cycled separators.

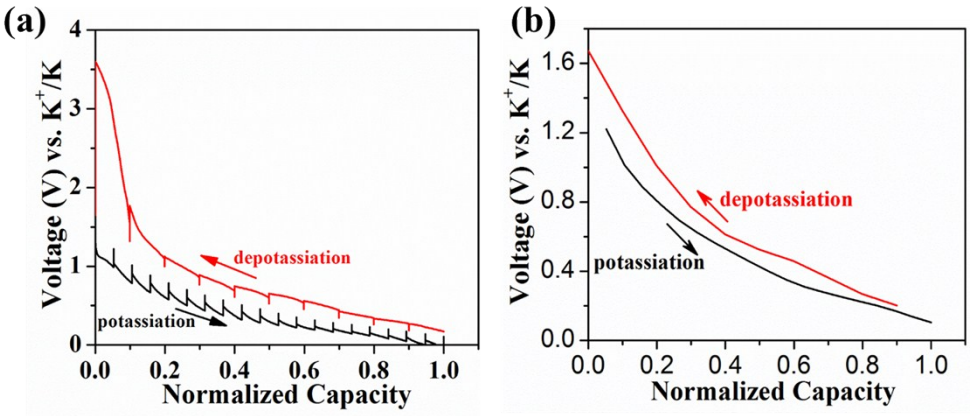

Figure S10. (a) GITT response and (b) quasi-equilibrium voltage profiles of the porous CNF anodes in KIBs.

	Atomic Concentrations (%)		
Sample	C	O	N
CNFs	90.87	4.42	4.71

Table S1. XPS surface elemental atomic components of the porous CNFs.