Supporting Information

Carbon nanoflakes for energy storage: scalable and low-cost synthesis, excellent performances toward comprehensive application

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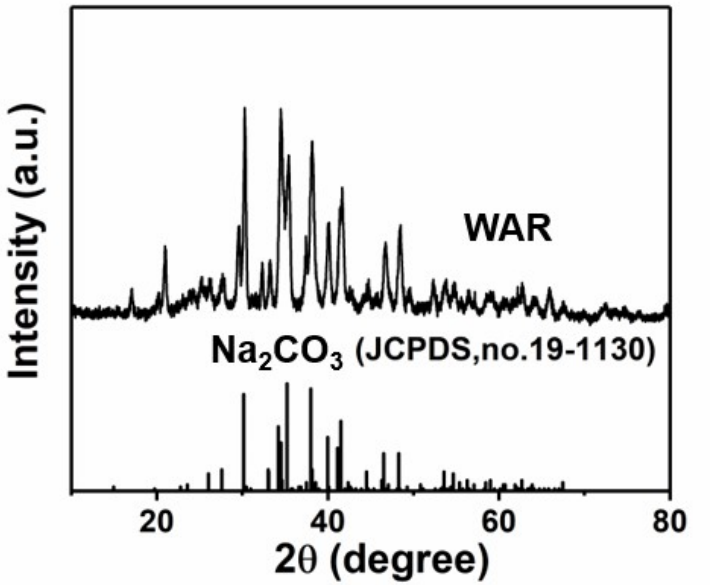

Fig. S1 XRD pattern of the sintered WAR.

Tab. S1 Price comparison of raw materials for different carbon precursors.

Material	Brand	Weight/g	Price
Sodium citrate	Aladdin	500	¥148
D-(+)-Glucose	Aladdin	500	¥69
Sodium alginate	Aladdin	500	¥307

D-(-)-Fructose	Aladdin	500	¥130
Sodium chloride	Aladdin	500	¥243
WAR	LINYILVSEN Co.Ltd.	500	¥22.5

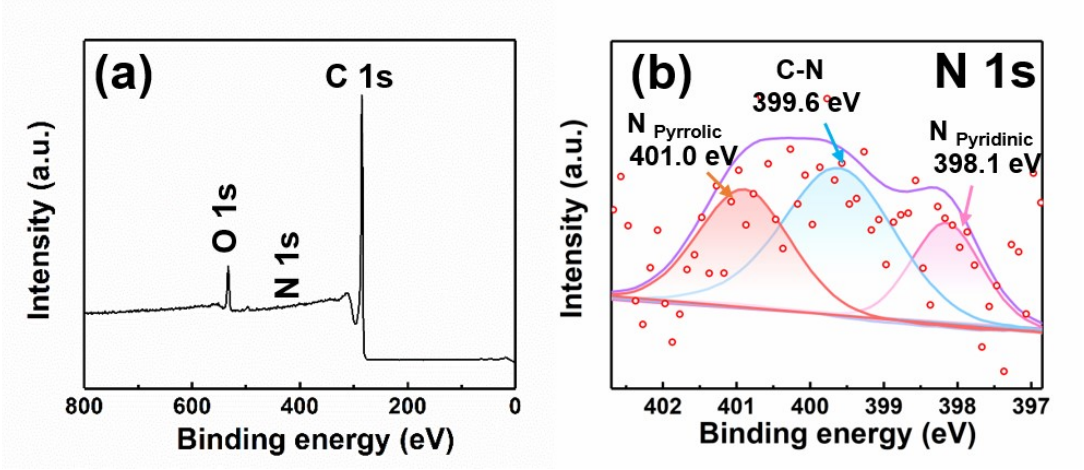

Fig. S2 Survery XPS spectrum (a), high resolution XPS spectrum of N 1s (b) for the WAR-CNFs.

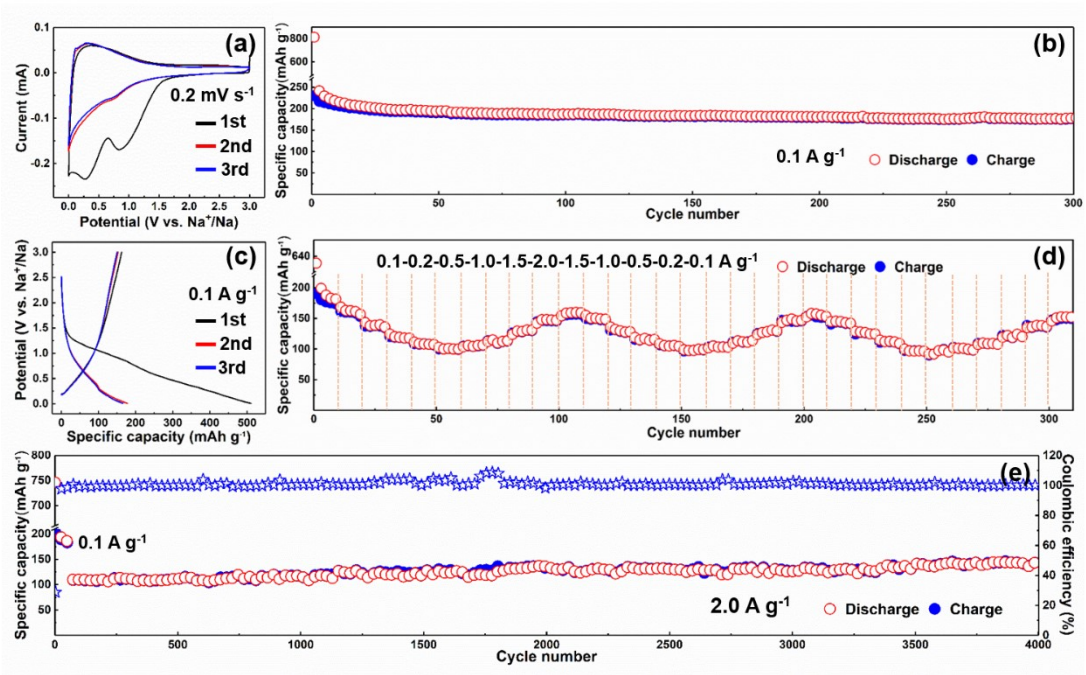

Fig. S3 Electrochemical performance of the WAR-CNFs anode in Na ion storage. (a) Cyclic voltammogram curves at scan rate of 0.2 mV s^{-1}. (b) Cycle performance at specific current of 0.1 A g^{-1} and (c) the initial three charge/discharge curves. (d)

Capacity variation at various currents. (e) long-life performance at high current of 2.0 A g^{-1}.

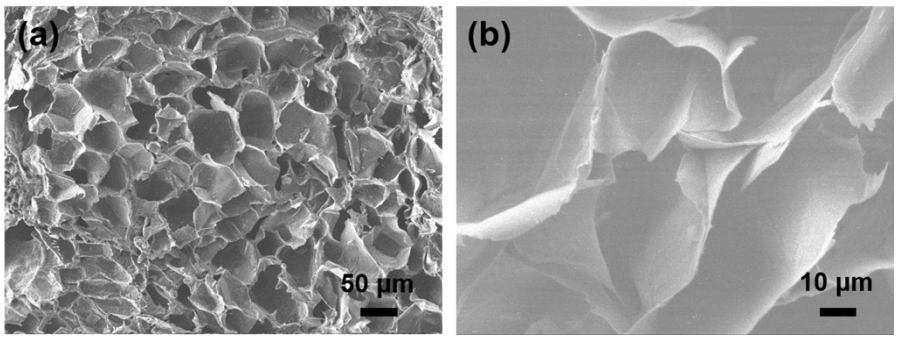

Fig. S4 Morphological and microstructural information of the TTF-CNFs. (a) Low and (b) High magnification SEM images of TTF-CNFs.

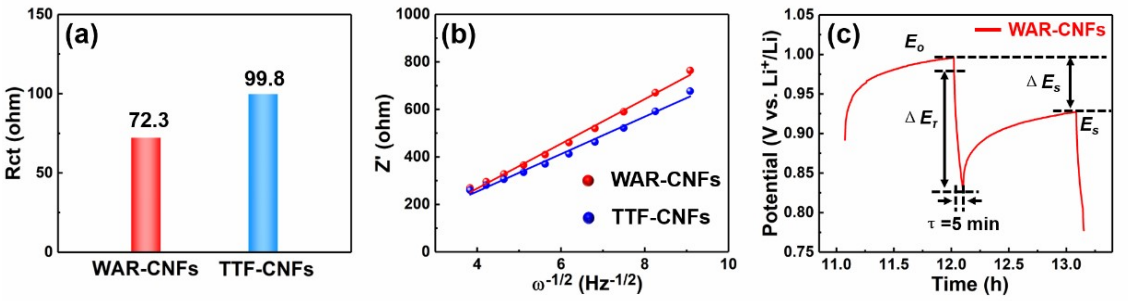

Fig. S5 (a) Fitted R_{ct} and (b) Z′ vs. $\omega^{-1/2}$ of WAR-CNFs and TTF-CNFs electrodes after one cycle. (c) Typical profile in a single GITT test.

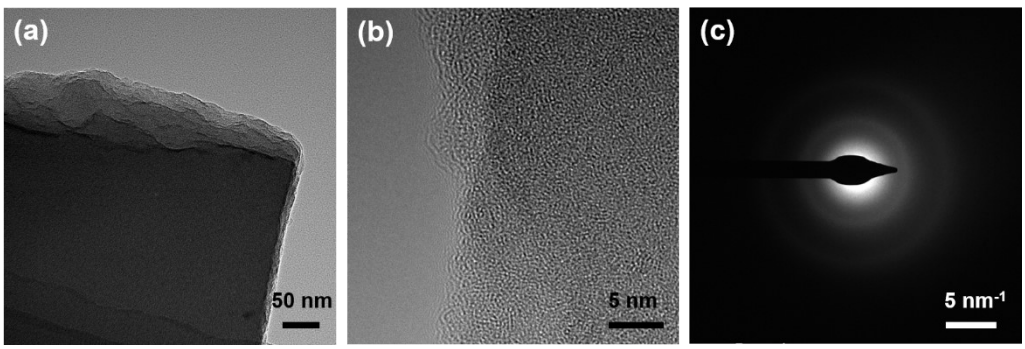

Fig. S6 (a) Low and (b) High magnification TEM images. (c) SAED pattern of TTF-CNFs.

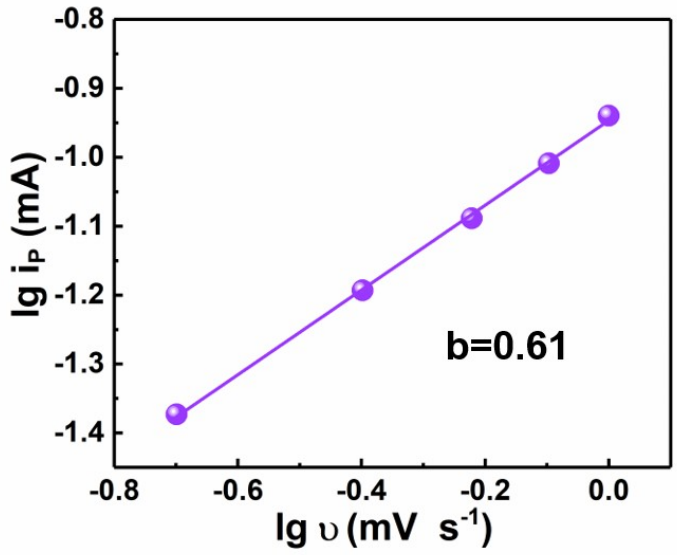

Fig. S7 Relationship between lg anodic peak current and lg scan rate (b value) for the WAR-CNFs electrode after one cycle.

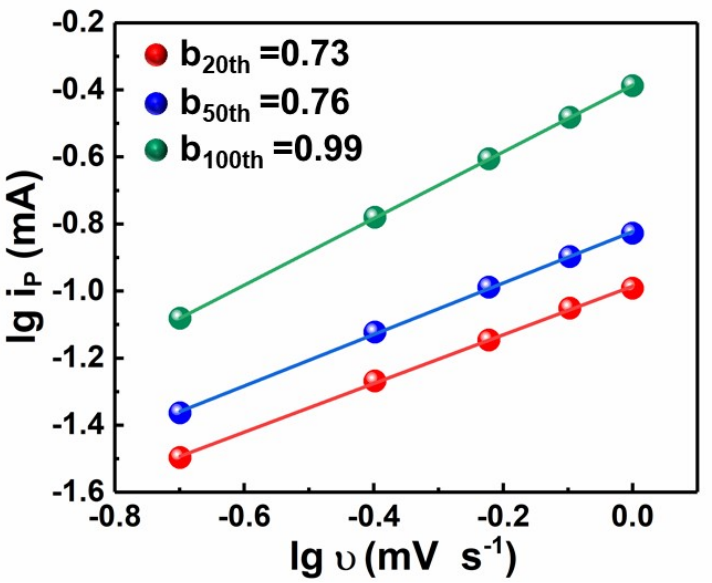

Fig. S8 Relationship between lg anodic peak current and lg scan rate (b value) for the WAR-CNFs electrodes after 20 cycles, 50 cycles and 100 cycles.

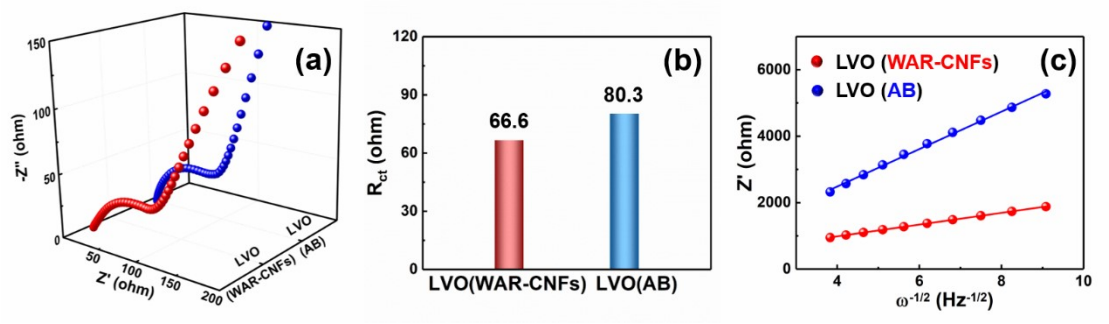

Fig. S9 Reaction kinetics analysis of the LVO electrode with WAR-CNFs and AB additives, respectively. (a) EIS spectra, (b) Fitted R_{ct} and (c) Z' vs. $\omega^{-1/2}$.

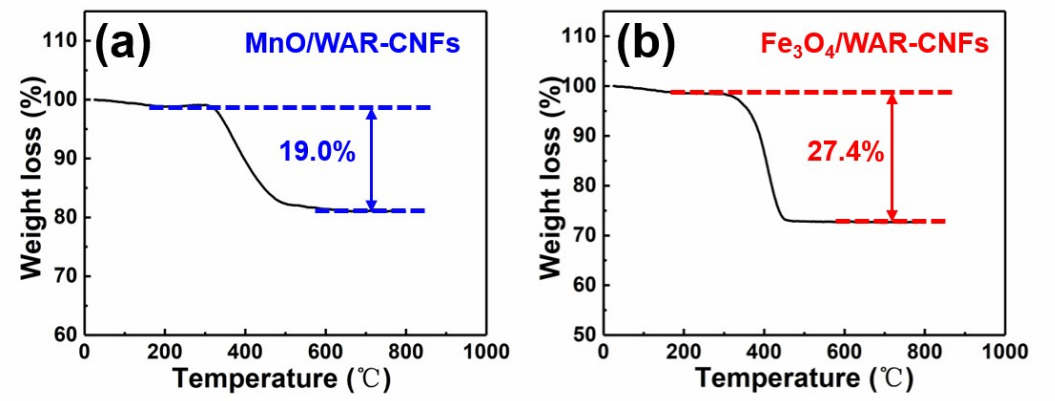

Fig. S10 Thermal gravimetric analysis of the MnO/WAR-CNFs and Fe_3O_4/WAR-CNFs.