Supporting Information

Self-supported $\text{Zn}_3\text{P}_2$ Nanowires Arrays Grafted on Carbon Fabrics as an Advanced Integrated Anode for Flexible Lithium Ion Battery

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Figure S1. a) Cyclic voltammogram curves of the $\text{Zn}_3\text{P}_2$ nanowires arrays/carbon fabrics integrated electrode; b) The CV comparison of $\text{Zn}_3\text{P}_2$ integrated anode and the pure carbon cloth collector at the same area, scan rate 0.1 mV s$^{-1}$, potential cut-off: 0.01-3.0 V; c) the typical differential capacity-voltage plot of the $\text{Zn}_3\text{P}_2$ nanowires arrays/carbon fabrics integrated electrode.
Figure S2. a and b) the low-magnification and high-magnification FSEM images of the integrated anodes after 20 cycles, respectively; c) the TEM images of the integrated anodes after 20 cycles.

Figure S3. Cycle performance of the pure carbon fabrics electrode at a current density of 400 mA g$^{-1}$. The low specific capacity (below 30 mA h g$^{-1}$) further confirms that Zn$_3$P$_2$ nanowires contribute main capacity of the integrated electrode.
Figure S4. The typical cycling performance of the $\text{Zn}_3\text{P}_2$ nanowires arrays integrated anodes and the pure carbon cloth current collector at an area current density of 800 $\mu$A cm$^{-2}$.

Figure S5. SEM images of LiFePO$_4$/Al foil. (commerically available)
Figure S6. Electrochemical performances of LiFePO$_4$. It is worth noting that the first coulombic efficiency of the cathode is 93%.
Figure S7. The CV curves of the flexible LIB full cell device.