Electronic Supplementary Information

Surfacing Amorphous Ni-B Nanoflakes on NiCo$_2$O$_4$ Nanospheres as Multifunctional Bridges for Promoting Lithium Storage Behaviors

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Figure S1. XRD pattern of the NiCo$_2$-glycerate precursor.

Figure S2. Morphologies of NiCo$_2$-glycerate precursors: Low and high-magnification (a, b) FESEM and (c, d) TEM.
Figure S3. More morphology details of NiCo$_2$O$_4$ porous nanospheres.

Figure S4. Comparison of XPS survey spectra of (a) NiCo$_2$O$_4$/NiB and (b) NiCo$_2$O$_4$.

Figure S5. Galvanostatic charge–discharge profiles of NiCo$_2$O$_4$ electrode at 0.2 A g$^{-1}$ for selected cycles.
Figure S6. Low and high magnification SEM of the sample collected from the NiCo$_2$O$_4$ (a, b) and NiCo$_2$O$_4$@NiB electrode (c, d) after 500 charge/discharge cycles at 500mA g$^{-1}$ in LIB testing.

Figure S7. a) CV curves at different scan rates, (b) b-value analysis calculation, c) separation of the capacitive and diffusion-controlled current contribution at 0.5 mV s$^{-1}$ and (d) contribution ratio of the capacitive and diffusion-controlled charges at different scan rates of the NiCo$_2$O$_4$ electrode.