Supporting Information

Bimetallic Metal-Organic Frameworks Derived Co_3O_4-$CoFe_2O_4$ Composites with Different Fe/Co Molar Ratios as Anode Materials for Lithium Ion Batteries

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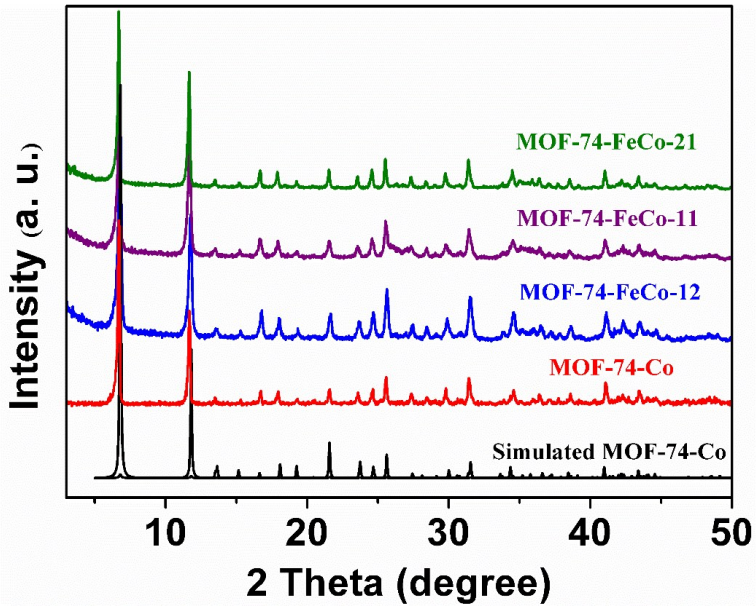

Figure S1. The PXRD patterns of the as-synthesized MOF-74-Co, MOF-74-FeCo-12, MOF-74-FeCo-11 and MOF-74-FeCo-21 precursors, respectively.

Table S1. The contents of Co_3O_4 and $CoFe_2O_4$ components in CCF-12, CCF-11, and CCF-21 samples based on ICP analyses.

	Samples		
	CCF-12	CCF-11	CCF-21
Co_3O_4 (wt %)	80.37	65.64	50.78
$CoFe_2O_4$ (wt %)	19.63	34.36	49.22

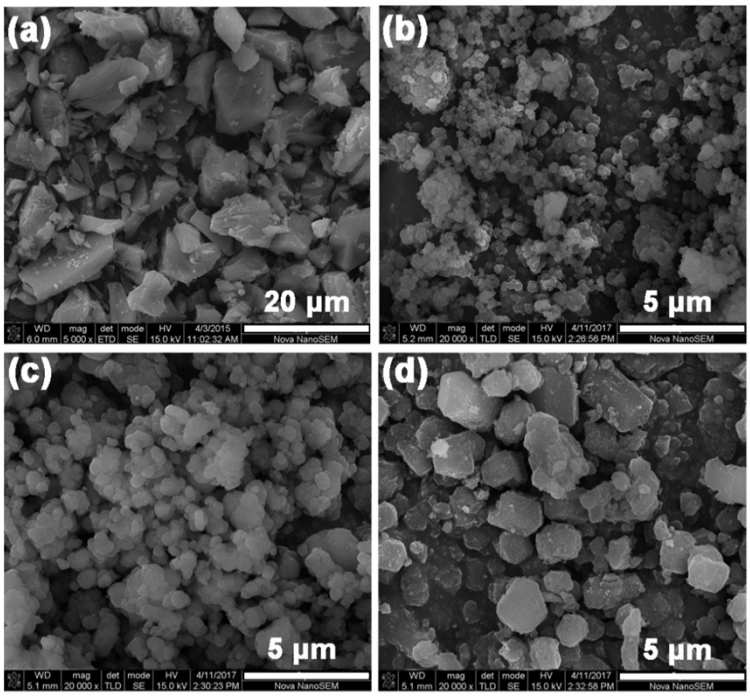

Figure S2 SEM images of the obtained MOF-74-Co, MOF-74-FeCo-12, MOF-74-FeCo-11 and MOF-74-FeCo-21 precursors, respectively.

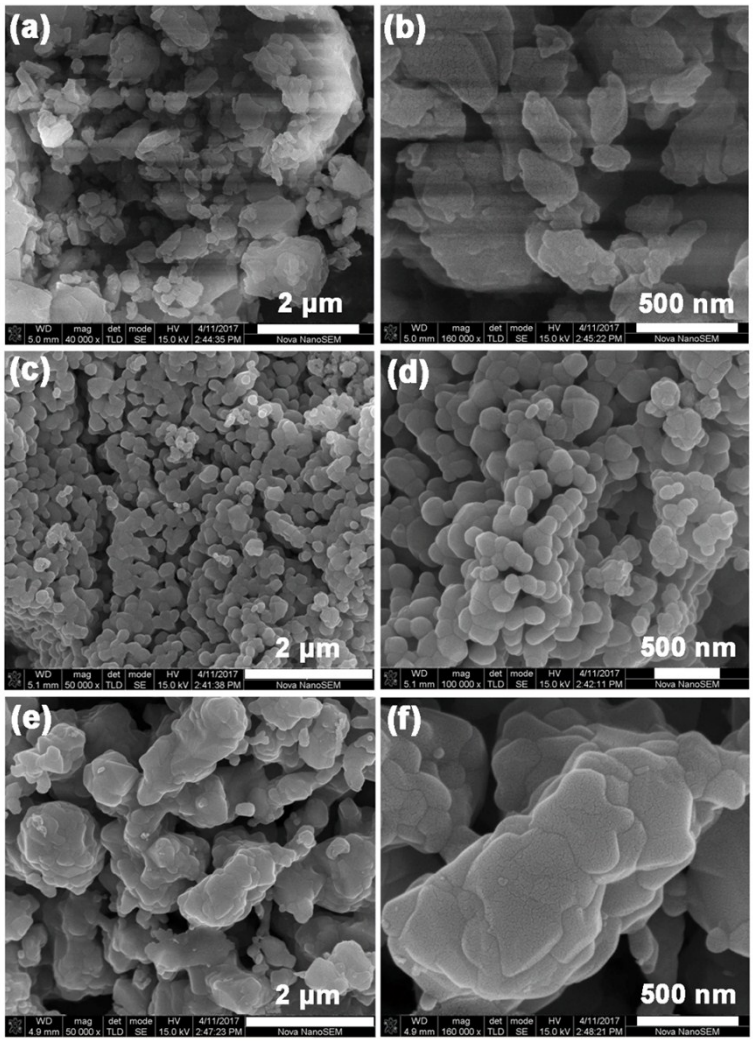

Figure S3 SEM images of the obtained CCF-11 (a, b), CCF-12 (c, d), and CCF-21 (e, f) composites.

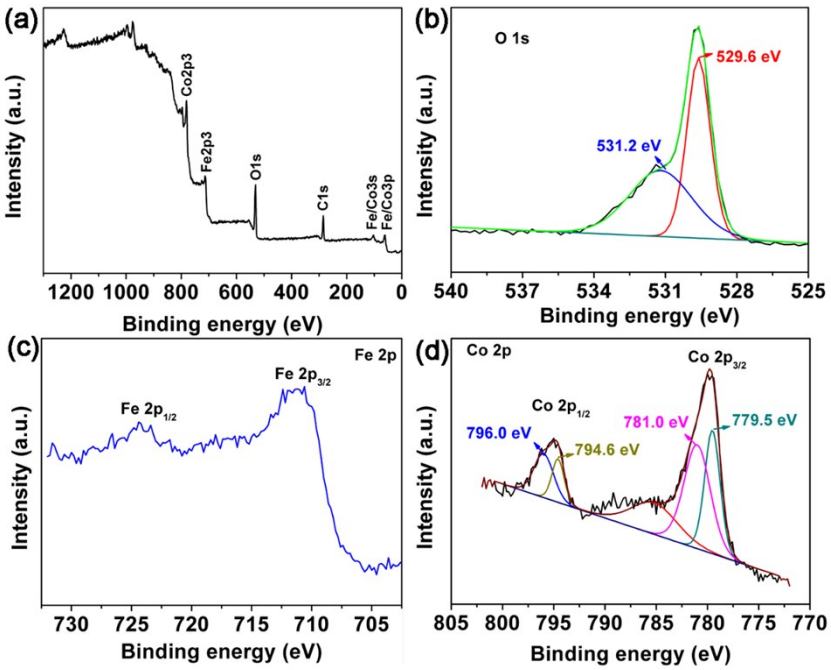

Figure S4. a) Full XPS profile, b) high-resolution O1s spectrum, c) Fe2p spectrum, and d) Co2p spectrum of the as-prepared CCF-11 composite.

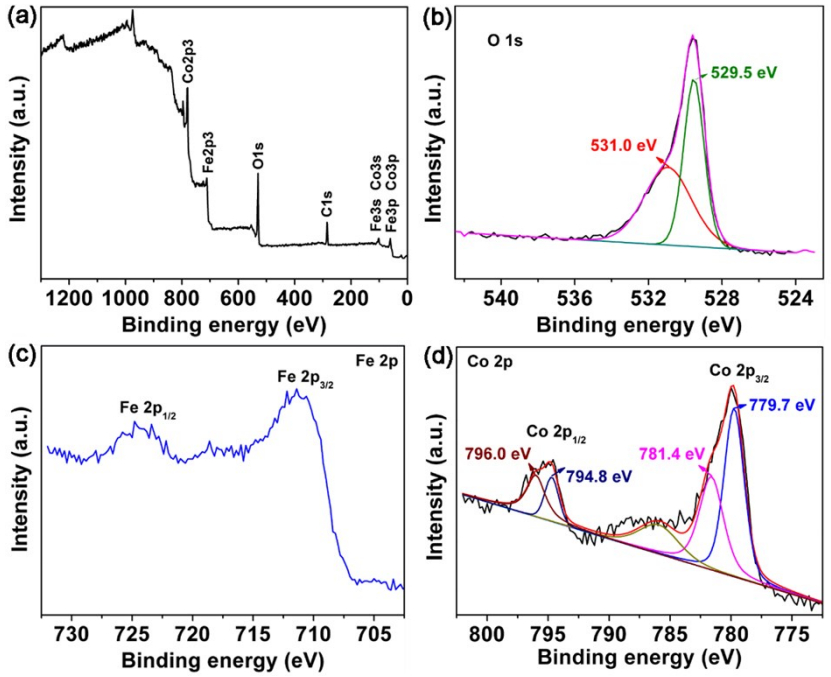

Figure S5. a) Full XPS profile, b) high-resolution O1s spectrum, c) Fe2p spectrum, and d) Co2p spectrum of the as-prepared CCF-21 composite.

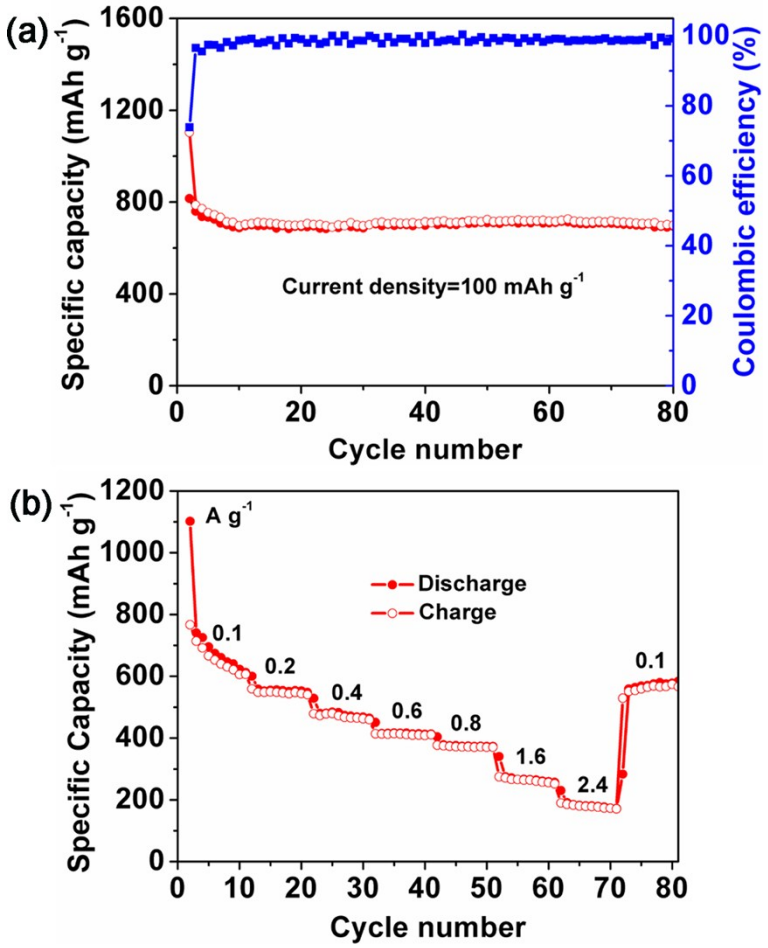

Figure S6. (a) Cycling performance of pure Co_3O_4 at a constant current rate of 100 mA g^{-1}. (b) Rate performance of pure Co_3O_4 at various current densities from 0.1 to 2.4 A g^{-1}.

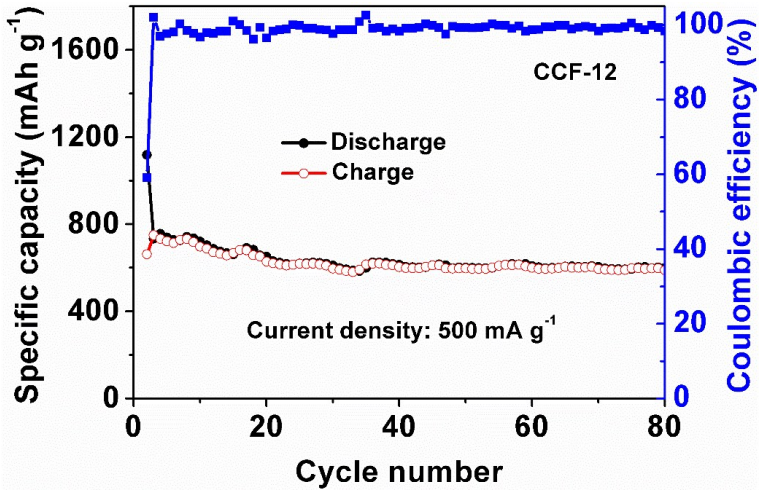

Figure S7. Cycling performance of CCF-12 at a constant current rate of 500 mA g^{-1}.

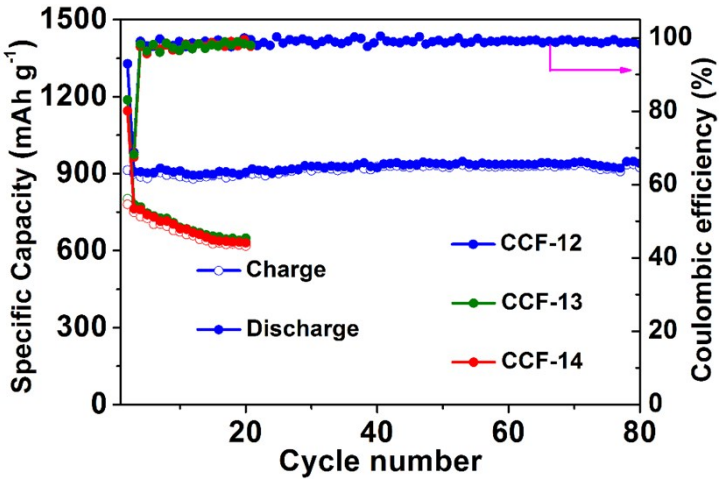

Figure S8. Cycling performance of CCF-12, CCF-13, and CCF-14 samples at a constant current rate of 100 mA g^{-1}.

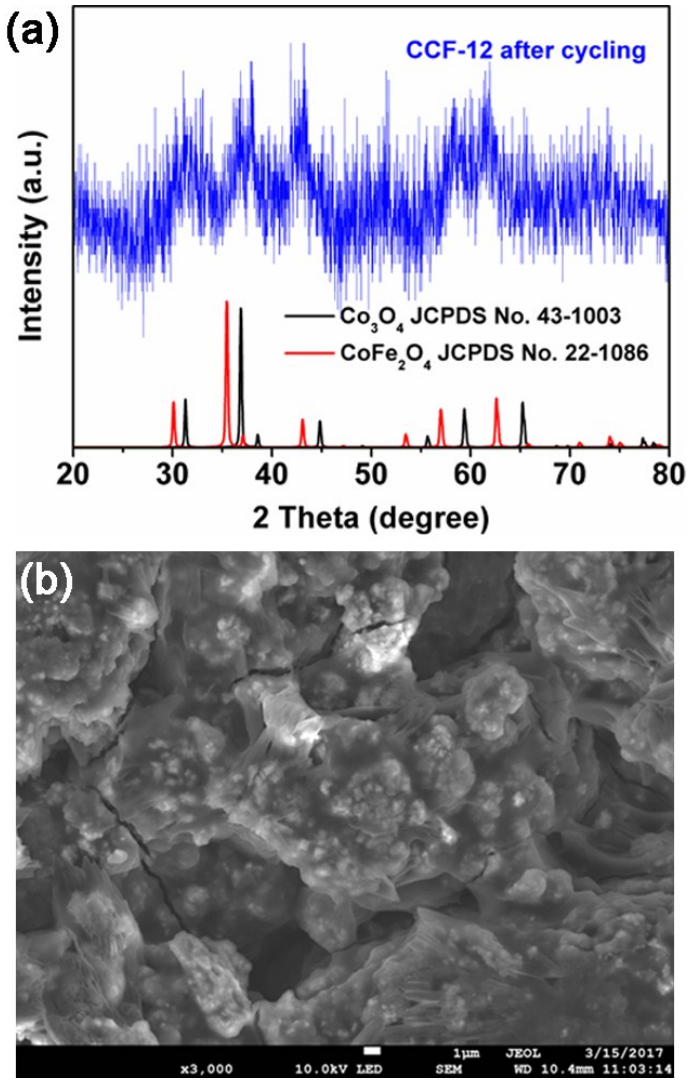

Figure S9. (a) XRD pattern and (b) SEM images of the CCF-12 composite after 80 cycles at current density of 100 mA g^{-1}.