

Electronic supplementary information (ESI) for

Room-Temperature Synthesis of Cobalt 2,3,5,6-

Tetrafluoroterephthalic Coordination Polymer with

Enhanced Capacity and Cycling Stability for Lithium

Batteries

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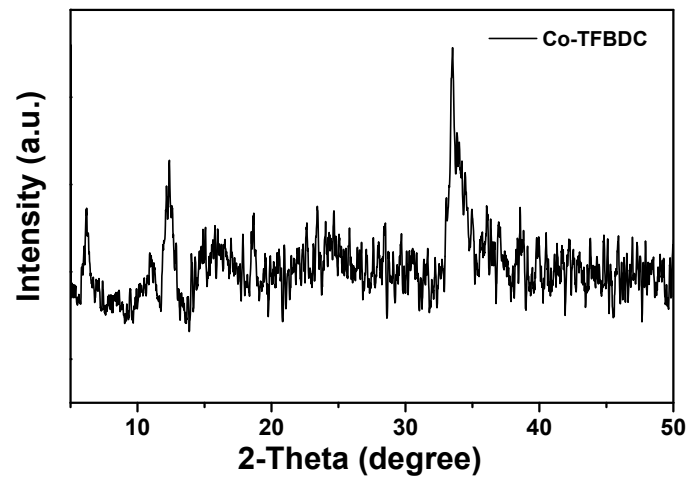


Fig. S1 XRD patterns of Co-TFBDC.

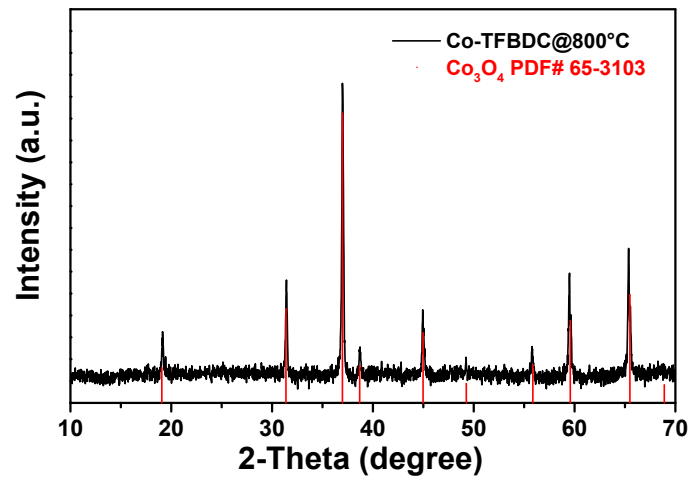


Fig. S2 XRD patterns of the annealed Co-TFBDC, which shows that the annealing product is Co₃O₄.

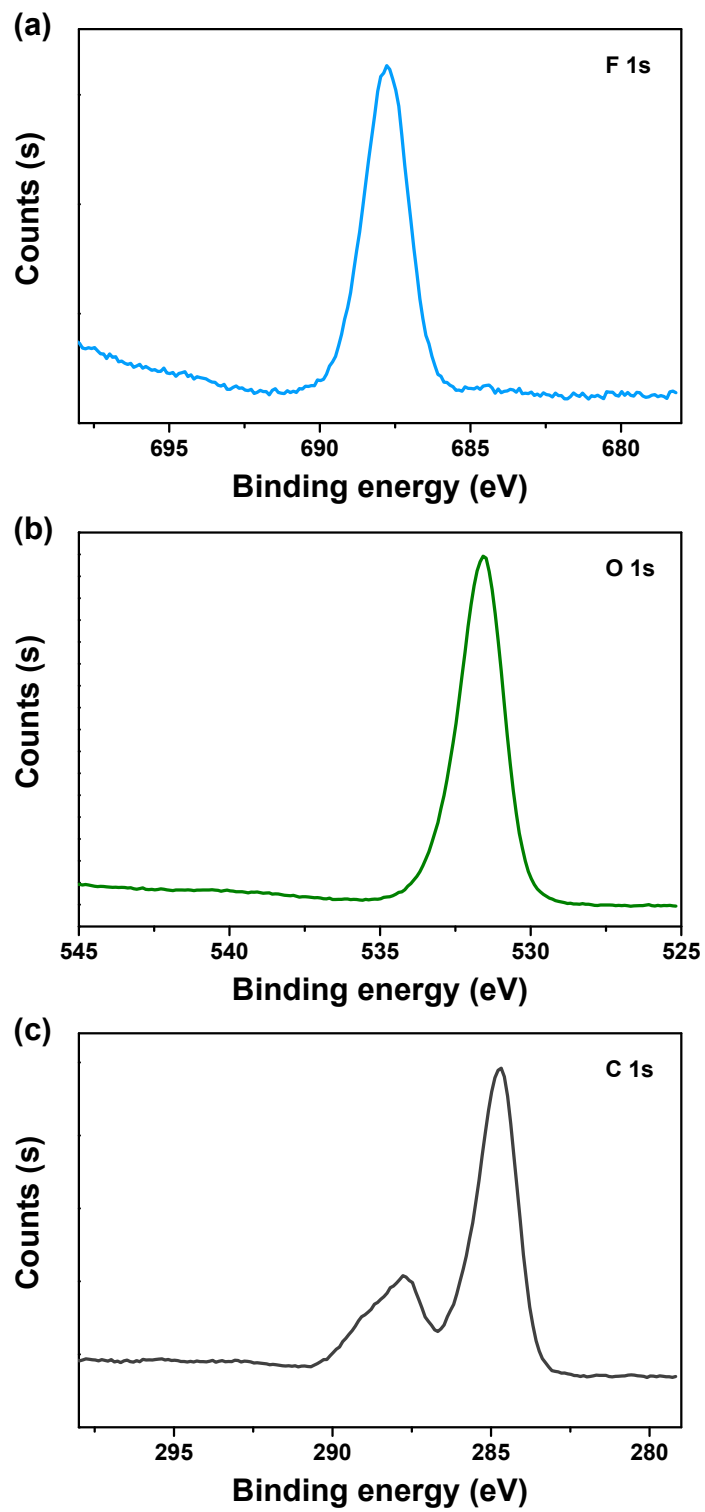


Fig. S3 High-resolution (a) F 1s (b) O 1s (c) C 1s XPS spectra of Co-TFBDC.

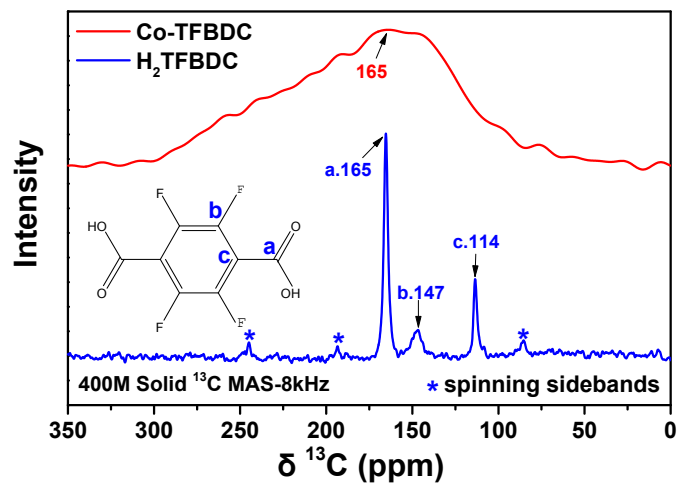


Fig. S4 Solid-state ^{13}C NMR spectra of Co-TFBDC and H_2TFBDC .

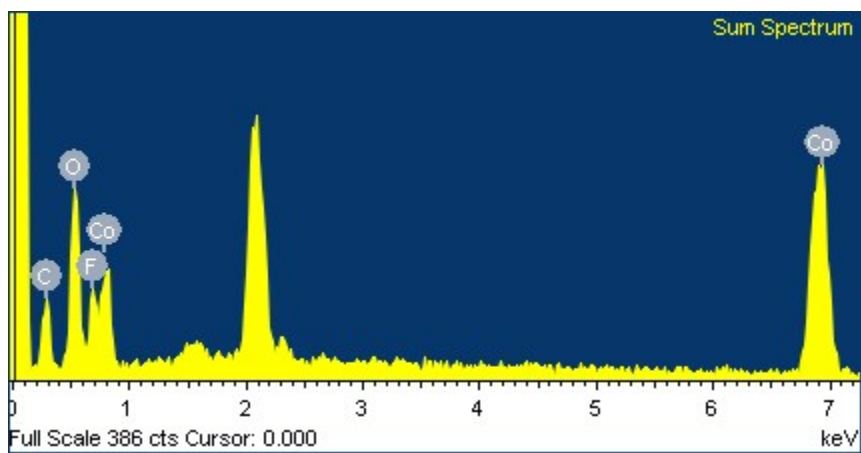


Fig. S5 Whole energy spectra of Co-TFBDC from the selected region. Before test, the samples were mounted on aluminum stubs, sputtered with gold resulting in the remaining peaks (e.g. approx. 2 keV) on the EDX spectrum.

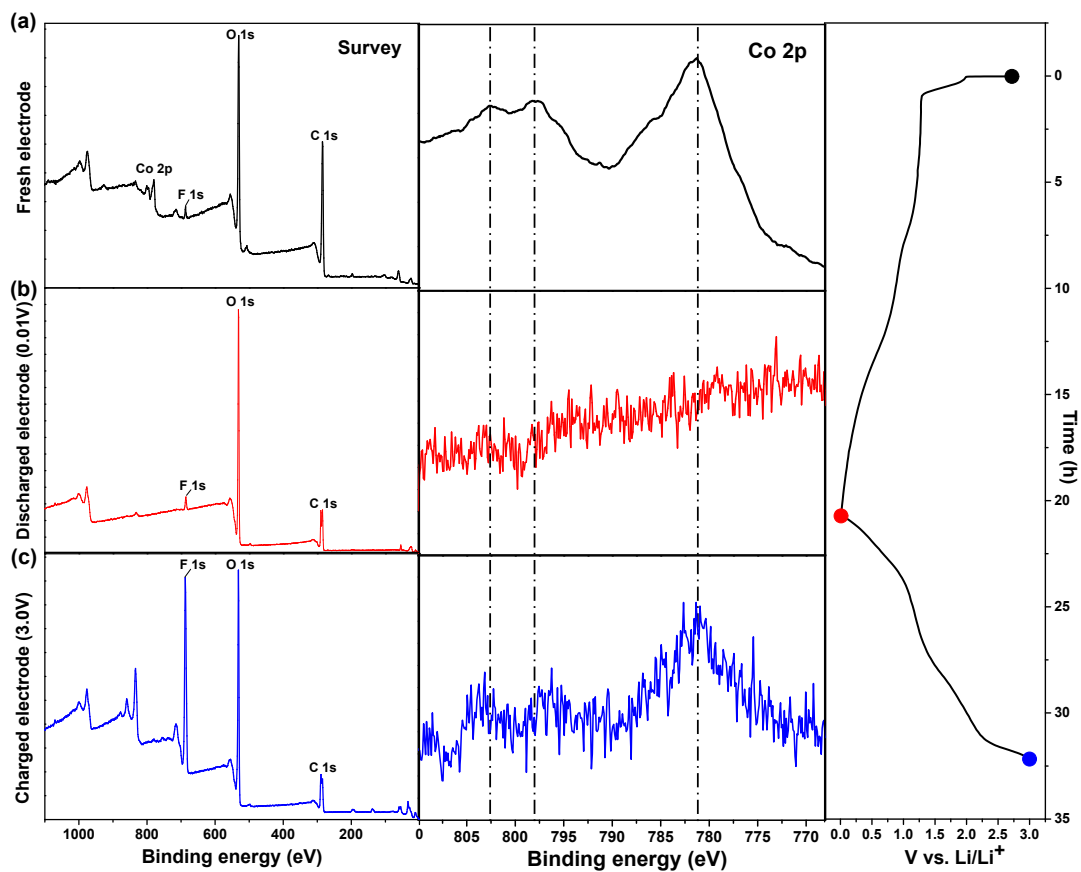


Fig. S6 ex-situ XPS spectra of (a) fresh electrode, (b) discharged electrode (0.01V), and charged electrode (3.0V).

Table S1 Atomic ratio of Co-TFBDC obtained from EDS analysis.

Element	Weight%	Atom%
C	29.37	51.38
O	19.73	25.92
F	6.08	6.72
Co	44.82	15.98
Total	100.00	100.00