Supporting Information for

One-pot Synthesis of Co-based Coordination Polymer Nanowire for Li-ion Batteries with Great Capacity and Stable Cycling Stability

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Table and Figures

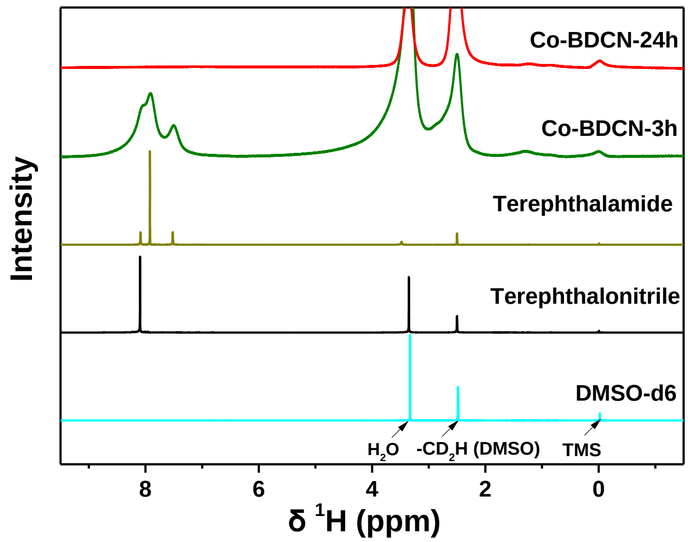

Fig. S1 ^{1}H NMR spectra of Co-BDCN-24h, Co-BDCN-3h, terephthalamide and terephthalonitrile in DMSO-d6 liquids

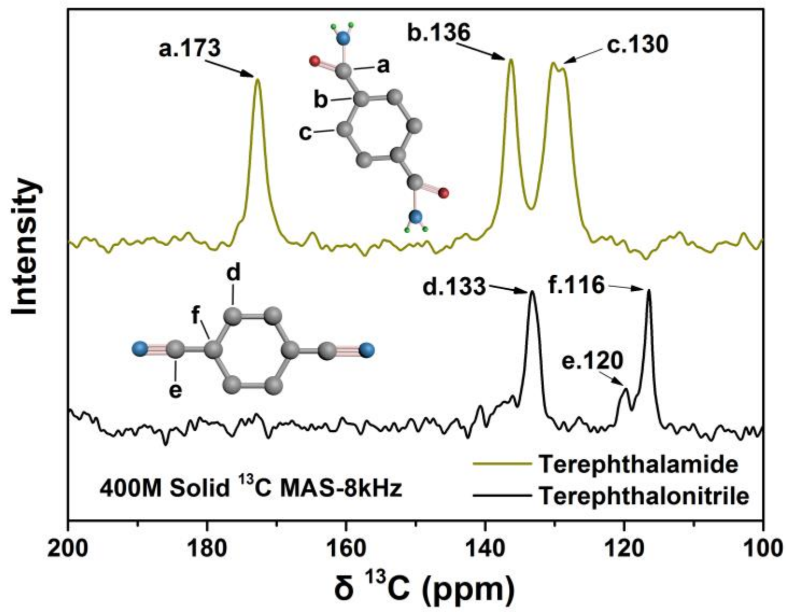

Fig. S2 ^{13}C NMR spectra of terephthalamide and terephthalonitrile in solid-state NMR

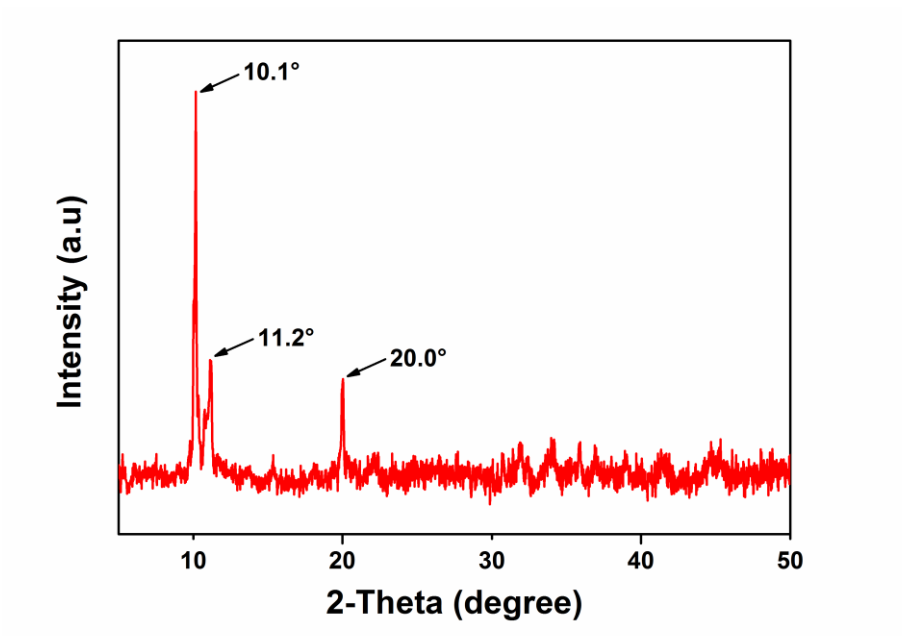

Fig. S3 XRD pattern of Co-BDCN-24h

Table S1 Metal organic frameworks (MOFs) or coordination polymers (CPs) for LIBs anode

organic ligands	MOFs or CPs	Voltage (V vs Li+/Li)	Current Density (mA g^{-1})	Cycle Number	Specific Capacity (mAh g^{-1})	Refs
H_2BDC	$Co_2(OH)_2BDC$	0.02–3.0	50	100	650	[1]
	Ni-MOF	0.01–3.0	100	100	620	[2]
	$[Cu_2(C_8H_4O_4)_4]_n$	0.01–2.5	48	50	161	[3]
H_3BTC	CoBTC-EtOH	0.01–3.0	100	100	856	[4]
	Mn-BTC	0.01–2.0	100	100	694	[5]
	$Cu_3(BTC)_2$	0.05–3.0	383	50	474	[6]
H_4BTC	MnCo-BTC	0.01–3.0	100	150	901	[7]
H_3BTB	MOF-177	0.1–1.6	50	2	425	[8]
IM & abIM	$Zn(IM)_{1.5}(abIM)_{0.5}$	0.01–3.0	100	200	190	[9]
H_2tfbdc & 4,4′-bpy	Mn-LCP	0.1–3.0	50	50	390	[10]
NTCDA	Ni-NTC	0.01–3.0	100	80	248	[11]
	Li-NTC	0.01–3.0	100	80	468	
	Li/Ni-NTC	0.01–3.0	100	80	482	
HCOOH	$Zn_3(HCOO)_6$	0.005–3.0	60	60	560	[12]
	$Co_3(HCOO)_6$	0.005–3.0	60	60	410	
	$Zn_{1.5}Co_{1.5}(HCOO)_6$	0.005–3.0	60	60	510	
4,4′-ocppy	[Pb(4,4′-ocppy)2]·7H2O	0.01-3.0	100	500	489	[13]
Terephthalamide	Co-BDCN	0.01–3.0	100	100	1132	This work

H_2BDC: 1,4-benzenedicarboxylate;
H_3BTC: 1,3,5-benzenetricarboxylate;
H_4BTC: 1,2,4,5-benzenetetracarboxylate;
H_3BTB: 1,3,5-benzenetribenzoate;
IM: Imidazole;
abIM: 2-aminobenzimidazole;
H_2tfbdc: 2,3,5,6-tetrafluoroterephthalic acid;
4,4-bpy: 4,4′-bipyridine;
NTCDA: 1,4,5,8-Naphthalenetetracarboxylic dianhydride;
HCOOH: methanoic acid.
4,4′-ocppy: 4-(4-carboxyphenyl)pyridine N-oxide

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