

## Supporting Information

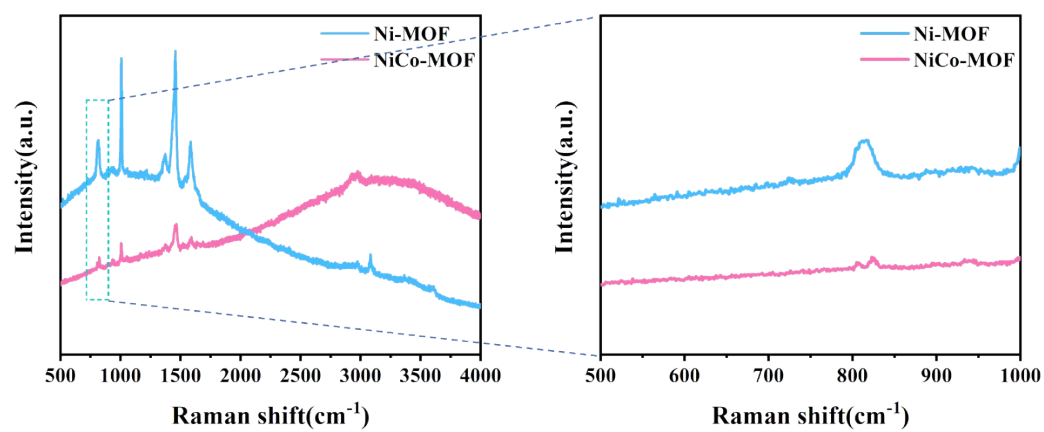
# Conductivity Enhancement Mechanism and Application of NiCo-MOF Hollow Sphere Electrode Materials in Lithium-Ion Batteries

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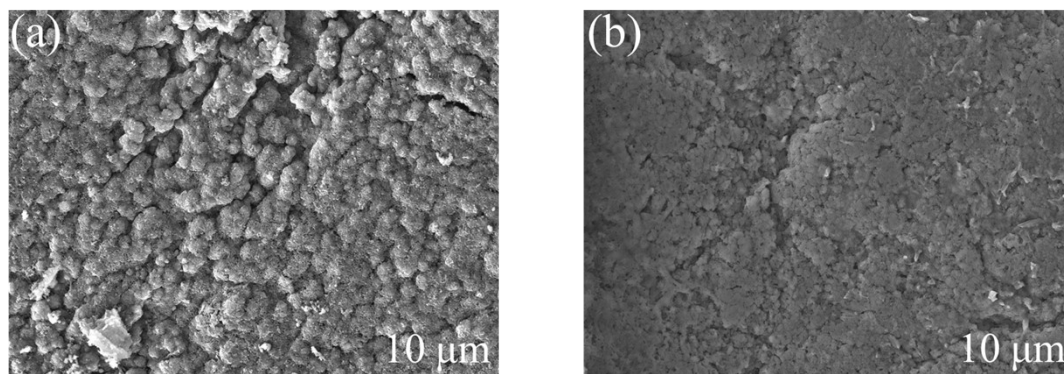
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**Fig. S1** Raman spectra of Ni-MOF and NiCo-MOF.



**Fig. S2** SEM images of Ni-MOF (a) and NiCo-MOF (b) after 200 cycles.

**Table S1** Structural parameters of Ni-MOF and NiCo-MOF

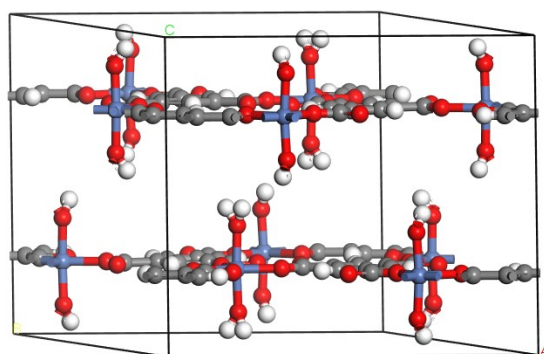
Structural parameters of Ni-MOF and NiCo-MOF

Lattice type: P  
Space group name: P 63/m c m  
Space group number: 193

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Lattice parameters					
a	b	c	alpha	beta	gamma
16.60900	16.60900	14.32500	90.0000	90.0000	120.0000

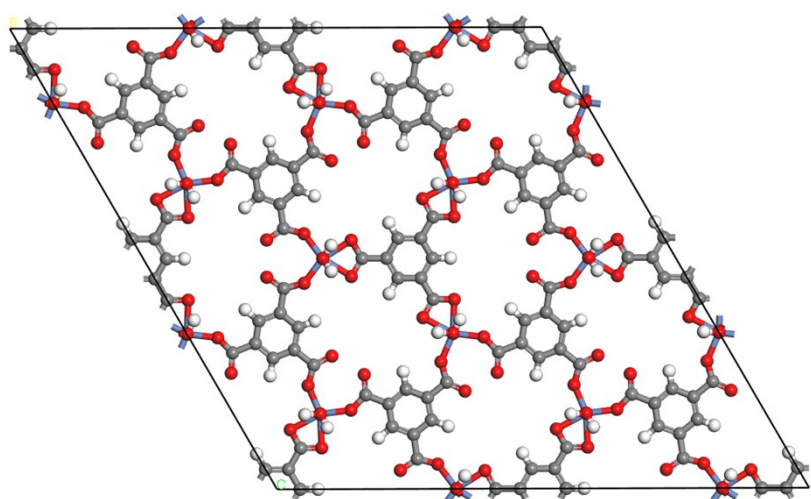
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**Fig. S3** Ni-MOF block structure diagram

**Table S2** A layer of Ni atomic coordinates on the surface of bulk Ni-MOF

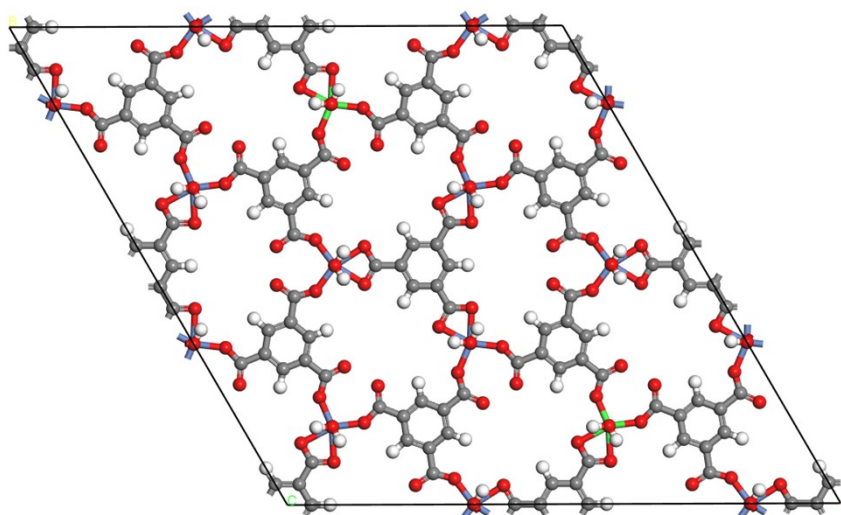
	x	y	z
Ni	0.33693	0	0.5
Ni2	0	0.33694	0.5
Ni3	0.16307	0.16307	0.5
Ni4	0.83693	0	0.5
Ni5	0.5	0.33694	0.5
Ni6	0.66307	0.16307	0.5
Ni7	0.33693	0.5	0.5
Ni8	0	0.83694	0.5
Ni9	0.16307	0.66307	0.5
Ni10	0.83693	0.5	0.5
Ni11	0.5	0.83694	0.5
Ni12	0.66307	0.66307	0.5



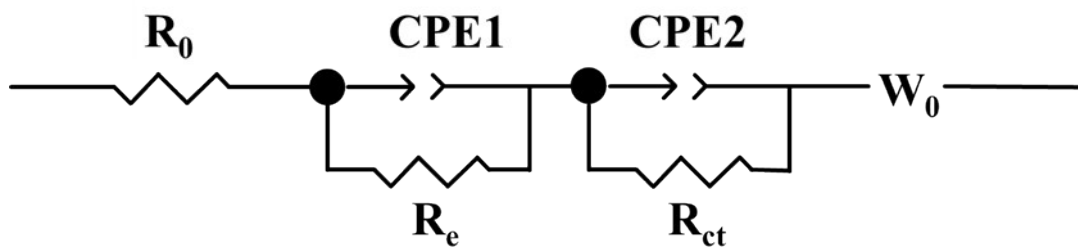
**Fig. S4** Structural diagram of surface layer in Ni-MOF block

**Table S3** A layer of Ni and Co atomic coordinates on the surface of the block in NiCo-MOF

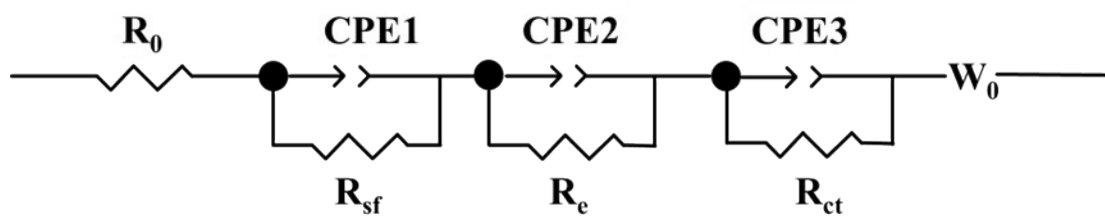
	x	y	z
Ni1	0.33693	0	0.5
Ni2	0	0.33694	0.5
Ni3	0.16307	0.16307	0.5
Ni4	0.83693	0	0.5
Co1	0.5	0.33694	0.5
Ni5	0.66307	0.16307	0.5
Ni6	0.33693	0.5	0.5
Ni7	0	0.83694	0.5
Ni8	0.16307	0.66307	0.5
Ni9	0.83693	0.5	0.5
Co2	0.5	0.83694	0.5
Ni10	0.66307	0.66307	0.5



**Fig. S5** Structural diagram of surface layer in NiCo-MOF block



**Fig. S6** Equivalent circuit of Ni-MOF and NiCo-MOF battery before cycling



**Fig. S7** Equivalent circuit of Ni-MOF and NiCo-MOF battery after cycling