

Supplementary Information

Coordination Derived Stable Ni-Co MOF for Foldable All-Solid-State Supercapacitor with High Specific Energy

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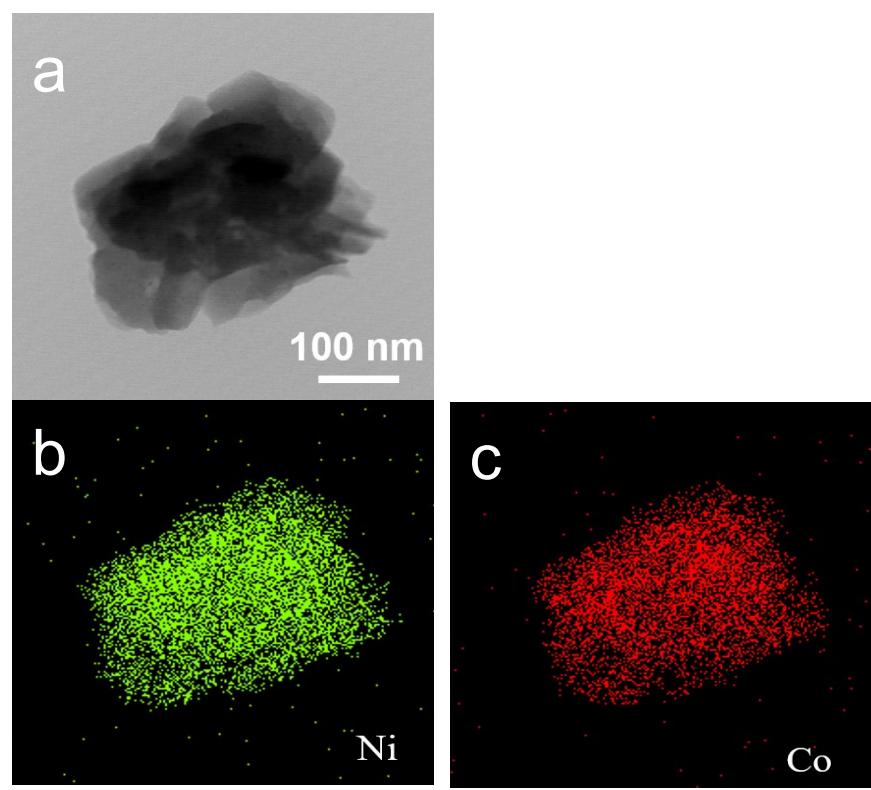


Figure S1. TEM image (a) and the corresponding elemental EDX mapping images of Ni (b) and Co (c).

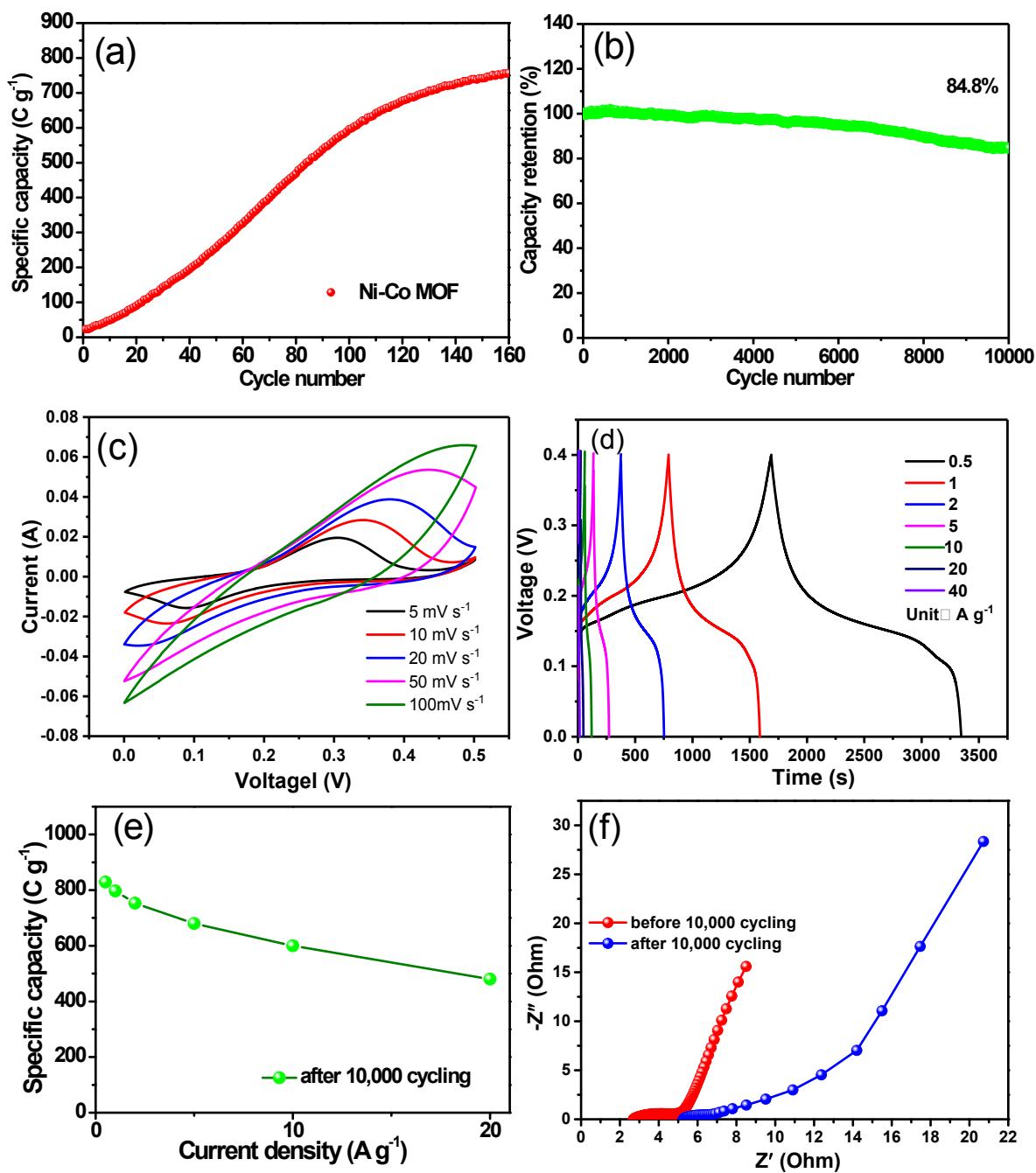


Figure S2. (a) The activation process of Ni-Co MOF at 10 A g^{-1} for 160 cycles. (b) Cycle performance for the Ni-Co MOF at a current of 10 A g^{-1} for 10,000 cycles. (c) The CV curves of Ni-Co MOF after 10,000 cycling. (d) GCD curves of Ni-Co MOF after 10,000 cycling. (e) Specific capacity of Ni-Co MOF after cycling test at different current densities. (f) Nyquist plots of electrode after cycling test.

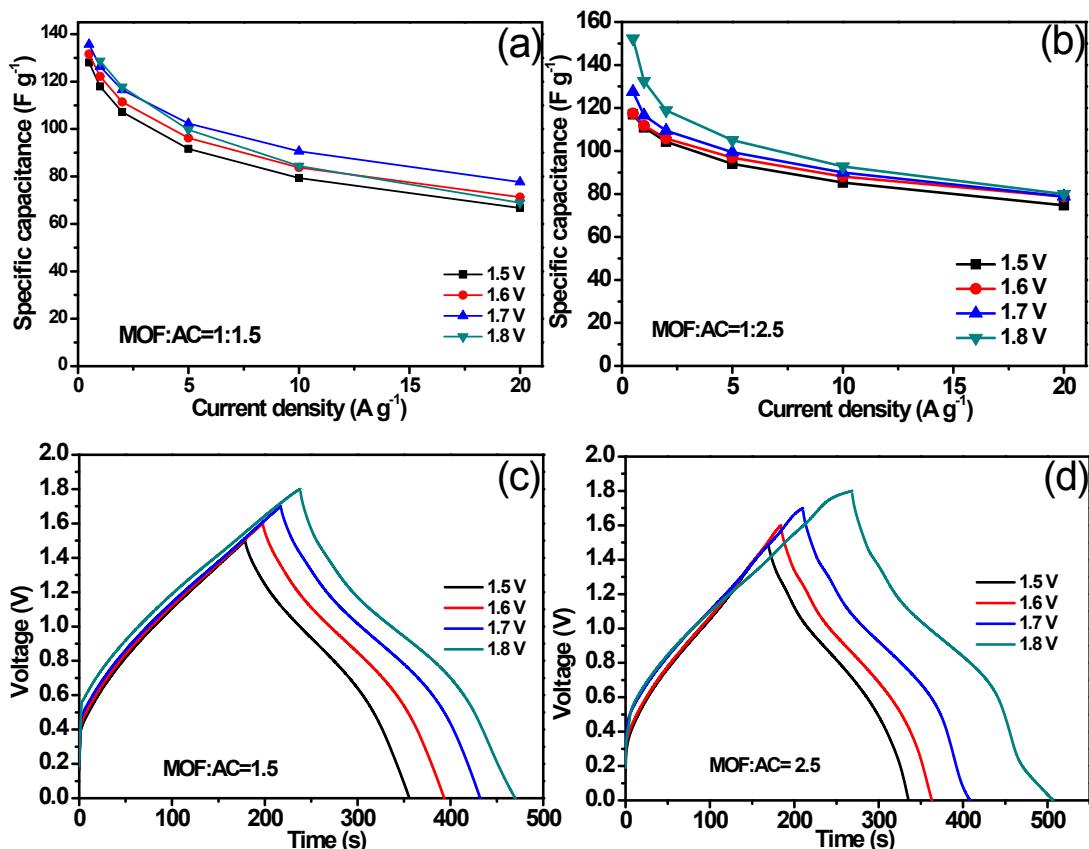


Figure S3. Specific capacitance as a function of current density for all-solid-state device with mass loading of 2.5 mg obtained at different voltages from 1.5 V to 1.8 V (a) $m_N/m_P=1.5$; (b) $m_N/m_P=2.5$. The CD curves at 1 A g^{-1} with the voltage from 1.5 V to 1.8 V (c) $m_N/m_P=1.5$; (d) $m_N/m_P=2.5$

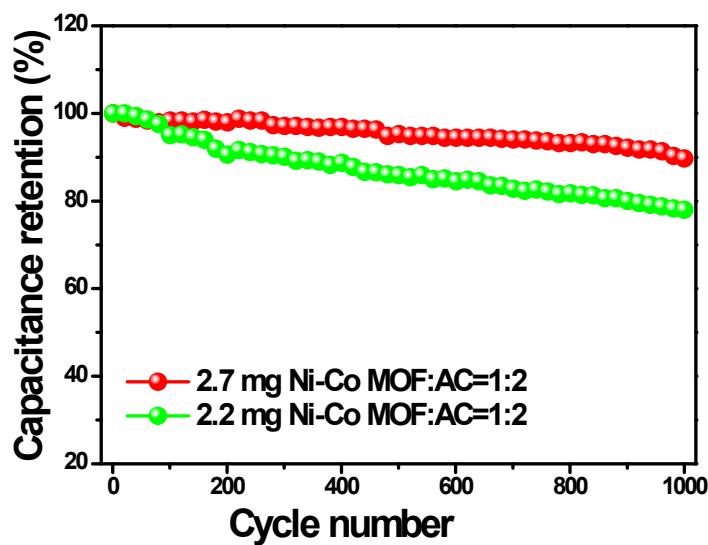


Figure S4. Cycle performance for the Ni-Co MOF//AC two-electrode devices tested at a current of 1 A g^{-1} in KOH solution for 1,000 cycles.

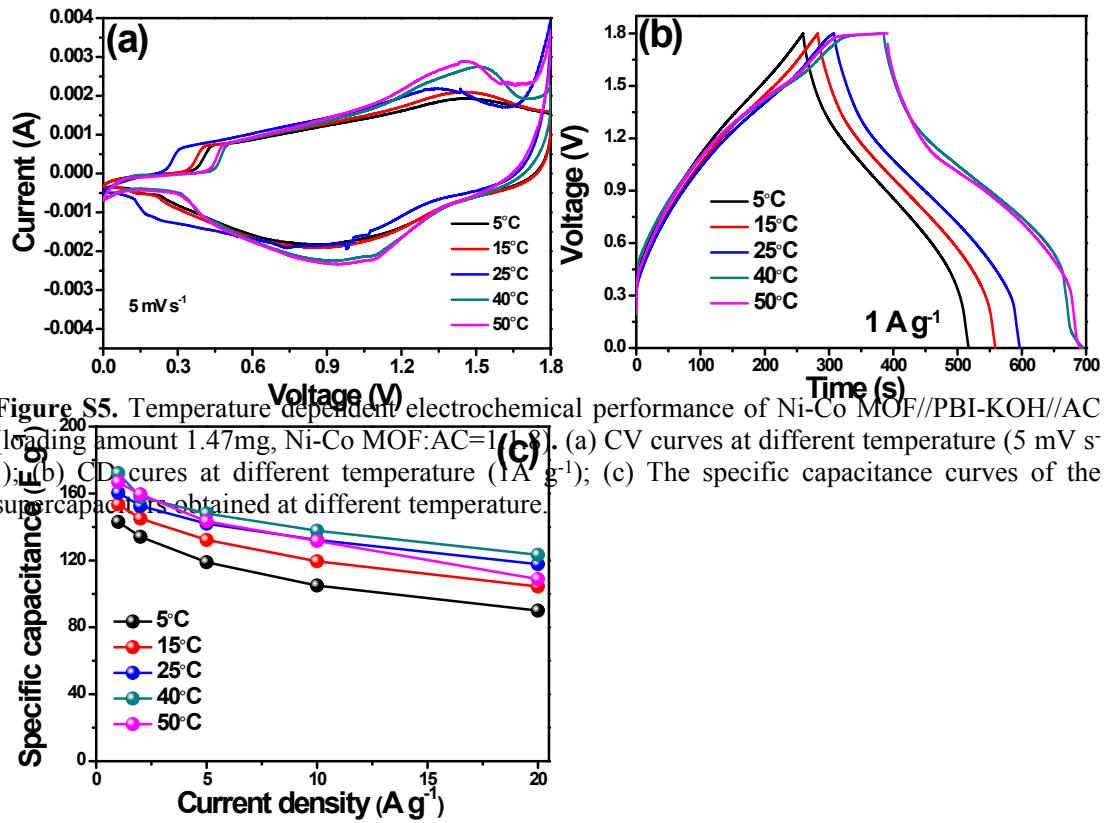


Figure S5. Temperature dependent electrochemical performance of Ni-Co MOF//PBI-KOH//AC (loading amount 1.47mg, Ni-Co MOF:AC=1) (8). (a) CV curves at different temperature (5 mV s^{-1}); (b) CD curves at different temperature (1 A g^{-1}); (c) The specific capacitance curves of the supercapacitors obtained at different temperature.

TABLE S1. Components of the Equivalent Circuit Fitted for the Impedance Spectra

Sample	R_s ($\Omega \text{ cm}^{-2}$)	R_{ct} ($\Omega \text{ cm}^{-2}$)	C_{dl} (mF cm^{-2})	C_f (F cm^{-2})	W $\text{Ss}^{-0.5}\text{cm}^{-2}$
Ni-Co MOF	3.4	0.48	2.2	1.4	0.59
Ni-Co MOF after 5,000 cycles	2.6	2.3	1.3	0.85	0.1