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=1:1.8). (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

<table>
<thead>
<tr>
<th>Sample</th>
<th>$R_s$ (Ω cm$^{-2}$)</th>
<th>$R_{ct}$ (Ω cm$^{-2}$)</th>
<th>$C_{dl}$ (mF cm$^{-2}$)</th>
<th>$C_f$ (F cm$^{-2}$)</th>
<th>$W$ S$^{-0.5}$cm$^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ni-Co MOF</td>
<td>3.4</td>
<td>0.48</td>
<td>2.2</td>
<td>1.4</td>
<td>0.59</td>
</tr>
<tr>
<td>Ni-Co MOF after 5,000 cycles</td>
<td>2.6</td>
<td>2.3</td>
<td>1.3</td>
<td>0.85</td>
<td>0.1</td>
</tr>
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