Supplementary Information

Hydrothermally Synthesized Homogeneous Ni-Mo-S Structure on Ni-Foam Cathode for Thermal Batteries

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Figure S1. TGA thermogram of NiMoS on Ni-foam, NiMoS on Ni-powder, NiS$_2$, CoS$_2$ and FeS$_2$. 

![TGA thermogram of NiMoS on Ni-foam, NiMoS on Ni-powder, NiS$_2$, CoS$_2$ and FeS$_2$.](image-url)

- **Weight loss (%)**
- **Temperature (°C)**
- **Lines and Colors**:
  - Black: FeS$_2$
  - Red: CoS$_2$
  - Blue: NiS$_2$
  - Green: NiMoS on Ni particle
  - Pink: NiMoS on Ni foam
Figure S2. SEM and EDS analysis result of NiMoS-160.
Figure S3. TEM and EDS mapping images of NiMoS-160 on Ni Particle.
Figure S4. TEM image and SAED results of NiMoS-160.
Figure S5. A comparison on discharge performance of as-received Ni-foam, NiMoS-80 and NiMoS-160.
Figure S6. Specific capacity of FeS$_2$ vs. NiMoS cathodes on Ni-foam.
Figure S7. Cross-sectional SEM image of NiMoS-160 after single cell discharge (a) cross section SEM image of single cell after discharge, (b) NiMoS particles delaminated from Ni-foam after single cell discharge.
Figure S8. Total polarization of NiMoS cathodes and FeS$_2$ depicted from single cell discharge test result.
Figure S9. LiCl-KCl salt impregnation effect of NiMoS cathodes on single cell discharge.
Table S1. NiMoS loading rate according to the (NH₄)₂MoS₄ in precursor solution.

<table>
<thead>
<tr>
<th>NiMoS</th>
<th>(NH₄)₂MoS₄ (mg)</th>
<th>DMF (ml)</th>
<th>Loading (mg)</th>
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<tbody>
<tr>
<td>NiMoS-80</td>
<td>80</td>
<td>30</td>
<td>27.3</td>
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<tr>
<td>NiMoS-160</td>
<td>160</td>
<td>30</td>
<td>46.6</td>
</tr>
<tr>
<td>NiMoS-240</td>
<td>240</td>
<td>30</td>
<td>71.3</td>
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<tr>
<td>NiMoS-320</td>
<td>320</td>
<td>30</td>
<td>97.7</td>
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