Supporting information

Figure S1. Analysis of the calorimeter curve by AKTS.

Based on the analysis, 7 peaks can be found, and enthalpies corresponding to these peaks were calculated as listed in Table 1.

Table 1. Reaction enthalpy corresponding to each peak (J)

<table>
<thead>
<tr>
<th>Peak 1</th>
<th>Peak 2</th>
<th>Peak 3</th>
<th>Peak 4</th>
<th>Peak 5</th>
<th>Peak 6</th>
<th>Peak 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>165.3</td>
<td>240.0</td>
<td>551.5</td>
<td>221.1</td>
<td>79.16</td>
<td>231.9</td>
<td>128.0</td>
</tr>
</tbody>
</table>
Figure S2. Fe 2p<sub>3/2</sub> and Fe 2p<sub>1/2</sub> XPS spectra for the samples D, E, G, H, and I.
Figure S3. O1s XPS spectra of the samples D, E, G, H, and I.
Figure S4. N1s XPS spectra for the samples D, E, G, H, and I.

Figure S5. Zn 2p$_{3/2}$ and Zn 2p$_{1/2}$ XPS spectra for the samples D, E, G, H, and I.