Supporting information

Multifunctional applications for waste zinc-carbon battery to synthesize carbon dots and symmetrical solid-state supercapacitors

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Figure S1 The detail schematic for preparation of carbon dots and porous carbon materials.
Figure S2 XPS spectra C1s and O1s of CB6 and CB8.
Figure S3 SEM images of (a, b) CB6, (c, d) CB7 and (e, f) CB8 at high magnification.
Table S1 Detail table of PL excitation following UV-Vis data

<table>
<thead>
<tr>
<th>UV-Vis absorption of 250 nm</th>
<th>250</th>
<th>270</th>
<th>290</th>
<th>310</th>
<th>330</th>
<th>350</th>
<th>370</th>
<th>390</th>
<th>410</th>
<th>430</th>
<th>450</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL excitation (nm)</td>
<td></td>
<td></td>
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<tr>
<td>PL peak (nm)</td>
<td>435</td>
<td>440</td>
<td>435</td>
<td>430</td>
<td>435</td>
<td>450</td>
<td>455</td>
<td>470</td>
<td>485</td>
<td>500</td>
<td>510</td>
</tr>
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