Supporting Information

Controllable Functionalized Carbon Fabric for High-Performance All-Carbon-Based Supercapacitors

Huanyu Jin, Zehua Peng, Wing Man Tang,* and Helen Lai Wa Chan

Figure S1. SEM image of CF after etching. Inset is the low resolution image.

Figure S2. XPS spectra of FCF under different annealing temperatures.
Figure S3. Electrochemical performance of 100 °C-annealed FCF electrode measured by a typical three-electrode configuration system. (a), (c) CV curves at different scan rates. (b), (d) Galvanostatic charge/discharge curves at different current densities.
Figure S4. Electrochemical performance of 200 °C annealed-FCF electrode measured by a typical three-electrode configuration system. (a), (c) CV curves at different scan rates. (b), (d) Galvanostatic charge/discharge curves at different current densities.
Figure S5. Electrochemical performance of 300 °C-annealed FCF electrode measured by a typical three-electrode configuration system. (a), (c) CV curves at different scan rates. (b), (d) Galvanostatic charge/discharge curves at different current densities.
Figure S6. Galvanostatic charge/discharge curves of the solid-state SC device with 200 °C-annealed FCF electrodes.
Table S1  Contribution of functional groups extracted from XPS results for different annealing temperatures.

<table>
<thead>
<tr>
<th>Annealing temperature (°C)</th>
<th>&gt;COH (%)</th>
<th>&gt;C=O (%)</th>
<th>–COOH (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>16.31</td>
<td>1.8</td>
<td>5.67</td>
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<tr>
<td>200</td>
<td>9.26</td>
<td>10.29</td>
<td>6.87</td>
</tr>
<tr>
<td>300</td>
<td>6.87</td>
<td>12.16</td>
<td>1.01</td>
</tr>
</tbody>
</table>
Table S2  Performance summary of recent reports about CF-based SCs.

“/” means the data were not given in the corresponding reference. \( C_A \) and \( C_V \) is the areal capacitance and volumetric capacitance of the device, respectively. \( E_V \) and \( P_V \) correspond to the volumetric energy density and power density of the device respectively.