Supporting Information

Deep-Ultraviolet Emissive Carbon Nanodots

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Figure S1. (a) TEM image of the CND-2. (b) TEM image of the CND-3.

Figure S2. (a) FTIR spectrum of the CND-2. (b) FTIR spectrum of the CND-3.
Figure S3. (a-b) PL spectrum of the CND-2 and Calculated photoluminescence spectrum of configuration-2. (c-d) PL spectrum of the CND-3 and Calculated PL spectrum of the configuration-3.
Figure S4. (a-b) Emission spectra of the CND-2 and CND-3 in different polar solvents. (c-d) Absorption spectra of the CND-2 and CND-3 in different polar protic solvents.
**Figure S5.** Time resolved luminescence decay curves of the (a) CND-2 and (b) CND-3 collected at 300 nm in different polar solvents: water, methanol, ethanol.

**Table S1.** Fluorescence decay lifetime value of the CND-1 in different solvents.

<table>
<thead>
<tr>
<th>Wavelength (nm)</th>
<th>Ethanol</th>
<th>DMF</th>
<th>Methanol</th>
<th>IPA</th>
<th>DMSO</th>
<th>Water</th>
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<tr>
<td>282</td>
<td>6.01</td>
<td>6.01</td>
<td>5.66</td>
<td>6.04</td>
<td>6.03</td>
<td>6.93</td>
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<tr>
<td>290</td>
<td>5.96</td>
<td>5.92</td>
<td>5.66</td>
<td>6.41</td>
<td>5.92</td>
<td>6.94</td>
</tr>
<tr>
<td>300</td>
<td>6.00</td>
<td>5.87</td>
<td>5.69</td>
<td>6.55</td>
<td>5.86</td>
<td>6.99</td>
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</table>
Figure S6. (a) PL excitation spectrum of the CND-1, (b) Emission spectra of the CND-1 under different excitation wavelengths.

Figure S7. (a) Schematic diagram of preparation process of the CND-1 based LED. (b) Images of blue, green, and red CND phosphors under sunlight (left) and the CND LED (right) illumination.