Supporting Information

Ultraviolet-Pumped White Light Emissive Carbon Dot Based Phosphors for Light-Emitting Devices and Visible Light Communication

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Figure S1. Full survey XPS spectra of B-CDs, G-CDs and R-CDs.

Figure S2. C\textsubscript{1s} XPS spectra of B-CDs, G-CDs and R-CDs.
**Figure S3.** $\text{N}_{1s}$ XPS spectra of B-CDs, G-CDs and R-CDs.

**Figure S4.** $\text{O}_{1s}$ XPS spectra of B-CDs, G-CDs and R-CDs.
Figure S5. Formation process of white light emissive CD-based phosphors from the B-CDs, G-CDs, R-CDs and aqueous sodium silicate solutions mixture under microwave assisted treatment.
**Figure S6.** SEM images of non-grinded CD-based phosphors: (a) P-1, (b) P-2 and (c) P-3.

**Table S1.** PLQYs of white light emissive CD-based phosphors at 375 nm excitation and their corresponding mass ratios of B-CDs : G-CDs : R-CDs.

<table>
<thead>
<tr>
<th>Sample</th>
<th>PLQYs</th>
<th>Mass ratios</th>
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<tbody>
<tr>
<td>P-1</td>
<td>0.31</td>
<td>20:10:1</td>
</tr>
<tr>
<td>P-2</td>
<td>0.33</td>
<td>10:10:1</td>
</tr>
<tr>
<td>P-3</td>
<td>0.31</td>
<td>5:5:1</td>
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</tbody>
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