Hybrid Organic-inorganic Lead Bromide Perovskite Supercrystals Self-Assembled with L-cysteine and Their Highly Luminescent Properties

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Table S1. Surface elemental stoichiometry for PNCs-Cys and bulk materials.

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<th>sample</th>
<th>Br:Pb ratio</th>
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<tr>
<td>Bulk</td>
<td>2.9</td>
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<tr>
<td>PNCs-Cys</td>
<td>3.2</td>
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Figure S1. Photographs of PNCs-Cys prepared with different aging times under room light and UV light (365 nm) irradiation.
Figure S2. (a) PL spectra ($\lambda_{ex} = 395$ nm) of PNCs-Cys-60 and PNCs-Cys-84, (b) the TRPL spectra of PNCs-Cys-84 displayed on a logarithmic intensity scale ($\lambda_{ex} = 395$ nm).

Figure S3. UV-Vis (black line) and PL (red line) spectra ($\lambda_{ex} = 395$ nm) of PNCs-Cys-60 prepared with different contents of L-Cys capping ligands in toluene.
Figure S4. TEM image of PNCs-Cys-60 prepared with (a) 10 μL L-cys, (b) 20 μL L-cys, (c) 25 μL L-cys and (d) 30 μL L-cys. Inset: HRTEM image.

Figure S5. (a) PL spectra ($\lambda_{ex} = 395$ nm) of PNCs-Ala and PNCs-Cys, (b) Histogram of PL intensity for PNCs-Ala and PNCs-Cys.
Figure S6. The relative fluorescence intensity of 0.50 mg/mL PNCs-Ala-60 concentration on time in ethonal.

Figure S7. Emission spectra of PeLEDs based on aging time dependent PNCs-Cys.