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Supporting Information

## Single-particle dispersion of carbon dots in nanohydroxyapatite lattice achieving solid-state green fluorescence

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Figure S1. TEM and size distribution of CDs.



Figure S2. UV-Vis absorption spectrum of CDs solution.



Figure S3. Fluorescence spectrum of CDs solution with pH=1 and 300 nm-480 nm excitation.



Figure S4. Rietveld refinement diagrams of HA and CDs-HA.



Figure S5. XPS full spectra of HA and 0.05-CDs-HA.



Figure S6. Thermogravimetric curves of HA and 0.05-CDs-HA.



Figure S7. Fluorescence spectra of 0.05-CDs-HA120, 0.05-CDs-HA and 0.05-CDs-HA180 excited at 365 nm.



Figure S8. Fluorescence spectra of 0.05-CDs-HA6, 0.05-CDs-HA and 0.05-CDs-HA18 excited at 365 nm.