Supporting Information

Octacalcium phosphate microscopic superstructure self-assembly and evolution by dual-mediating combination

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Figure S1. Growth patterns of OCP nanocrystal individuals along the core in the aqueous solution by PASP/CTAB dual-mediating combination (from left to right: No. 6, No. 7, No. 8 and No. 9. The optical images confirm a relatively slow process of intergrowth from a core enabling the structure evolution with increasing R value, and further the elongated one-dimensional nanoplates have been aligned toward the center of dandelion-like sphere.
Figure S2. FTIR spectra of OCP samples synthesized from a dual-mediating approach in the aqueous solution with different $R$ values, in contrast with the pure OCP and CTAB. The spectra exhibited a bending mode of $\text{H}_2\text{O}$ at 1653 cm$^{-1}$. The adsorption band at 1076 cm$^{-1}$ can be assigned to the stretching mode of the P–O bond. The shoulders at 960–964 and 1090–1120 cm$^{-1}$ can be attributed to the presence of $\text{PO}_4^{3-}$ and/or $\text{HPO}_4^{2-}$ groups. The bands at 601 and 560 cm$^{-1}$ correspond to bending modes of the O–P–O bonds. The band at 875 cm$^{-1}$ can be attributed to the P–OH stretch vibration of $\text{HPO}_4^{2-}$ ions.