Bioactive hybrid organogels based on miniemulsion synthesis of morphologically complex polymer/surfactant/calcium phosphate nanostructures

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SUPPLEMENTARY INFORMATION

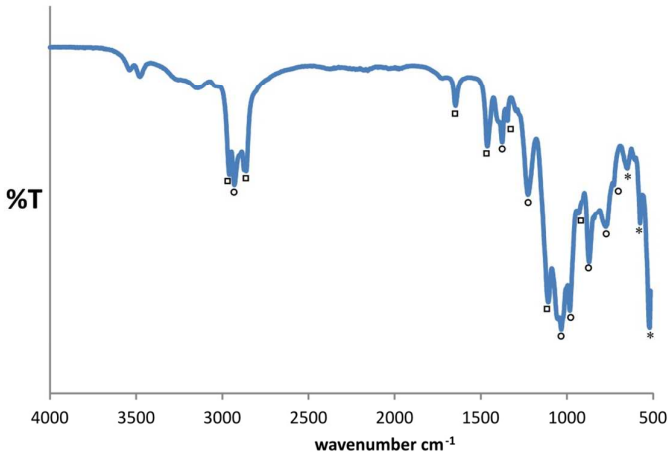

Figure S1. FTIR spectrum recorded from a P123/DEHP/calcium phosphate organogel showing absorption bands for P123 (squares), DEHP (circles), and inorganic phosphate (asterisks).

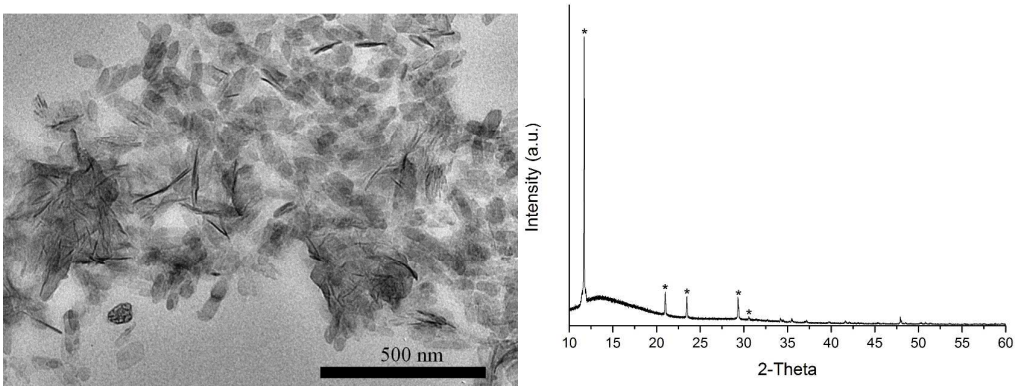

Figure S2. (Left) TEM image showing platelet crystals of brushite extracted from the cloudy lower aqueous phase after 2 days. The crystals were typically 60-100 nm and 37.7±4.6 nm in length and width, respectively. (Right) Corresponding PXRD pattern showing brushite reflections for the (0 2 0), (0 2 1), (0 4 0), (0 4 1) and (-2 2 1) planes.

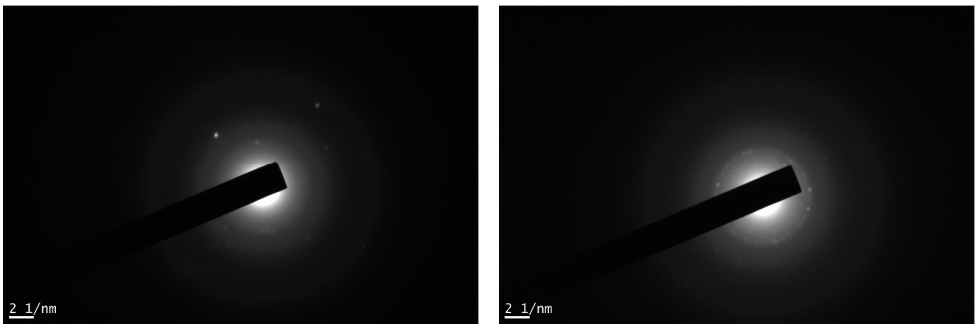

Figure S3. Selected area electron diffraction patterns before (left) and after (right) formation of organogel 10 showing an amorphous to brushite transformation during the solvent evaporation step.

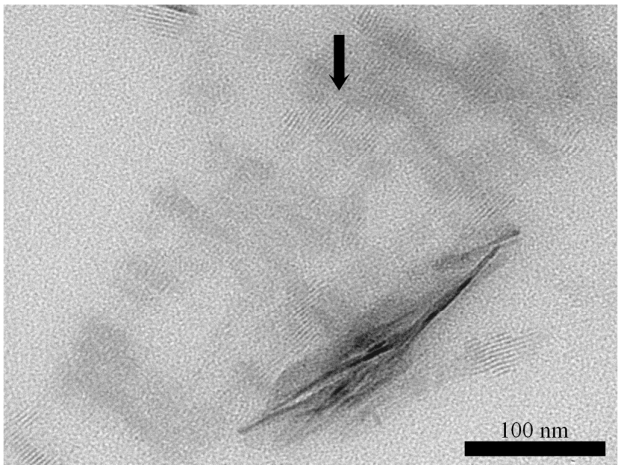

Figure S4. TEM image of $Ca(DEHP)_2$ mesolamellar phase showing lattice fringes with 1.1 ± 0.2 nm spacing (arrow).

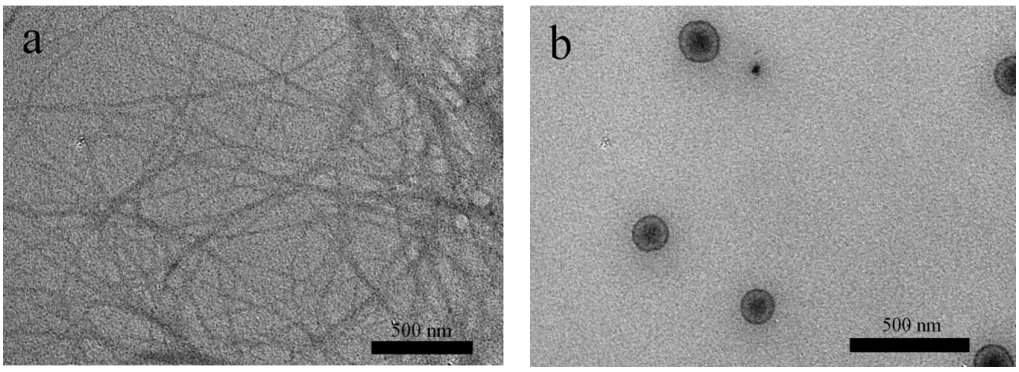

Figure S5. TEM images showing calcium phosphate structures obtained from control experiments in the absence of (a) $Ca(DEHP)_2$, and (b) P123.

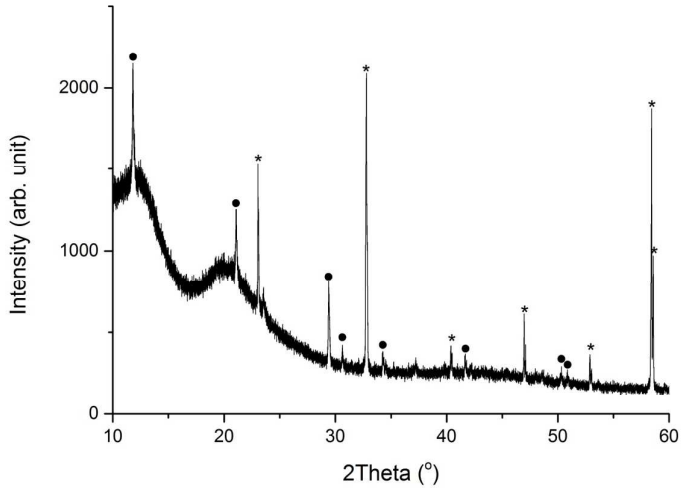

Figure S6. XRD powder pattern recorded from a P123/DEHP/calcium phosphate organogel mounted on a glass slide at room temperature under humid conditions, and left for 5 days. Reflections corresponding to crystalline brushite (asterisks) and hydroxyapatite (closed circles), along with an amorphous phase are observed.