Electronic Supplementary Information for:

Preparation of hydroxyapatite nanowires and nanorods via

aliphatic micelles as soft templates

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Fig. S1 Typical TG curves of HAP nanoparticles synthesized with different reactants at a heating rate of $20 \text{ }^\circ\text{C/min}$.



Fig. S2 Typical SEM images of precursor of HAP synthesized by (a,e) SA, (b,f) SO, (c,g) OAlc, and (f,h) OP-10.



Fig. S3 Typical FT-IR images of the upper and lower layers of precursor synthesized with OAlc after standing for 30 min.



Fig. S4 (a) Typical SEM images of HAP nanoparticles synthesized with OAlc in lower layers, (b) storage modulus (G') and loss modulus (G") of the upper layer precursor synthesized with OAlc after 30 min standing.



Fig. S5 The variation of (a) calcium and (b) sodium concentration in reaction process synthesized with different reactants.



Fig. S6 Typical XRD patterns of nanoparticles synthesized with OP-10.



Fig. S7 (a) Storage modulus (G') and loss modulus (G") and (b) shear viscosity/shear rate curve of the precursor synthesized with OP-10.