

Template-Oriented Synthesis of Hydroxyapatite Nanoplates for 3D Bone Printing

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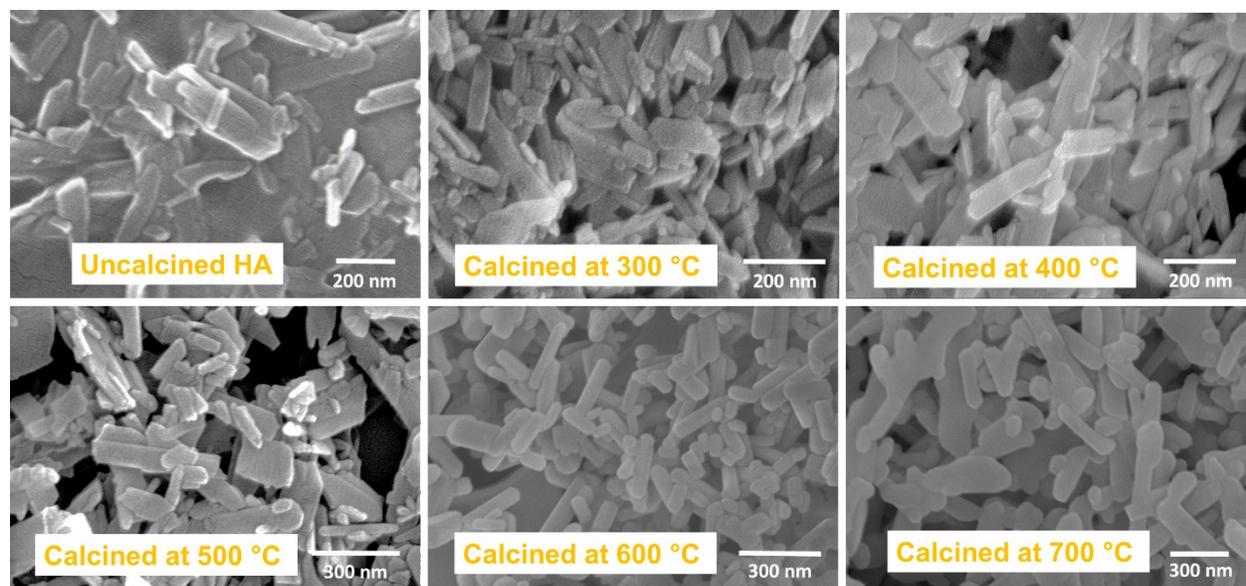


Figure S1. SEM images of HAs calcined at different temperatures under same temperature ramp.

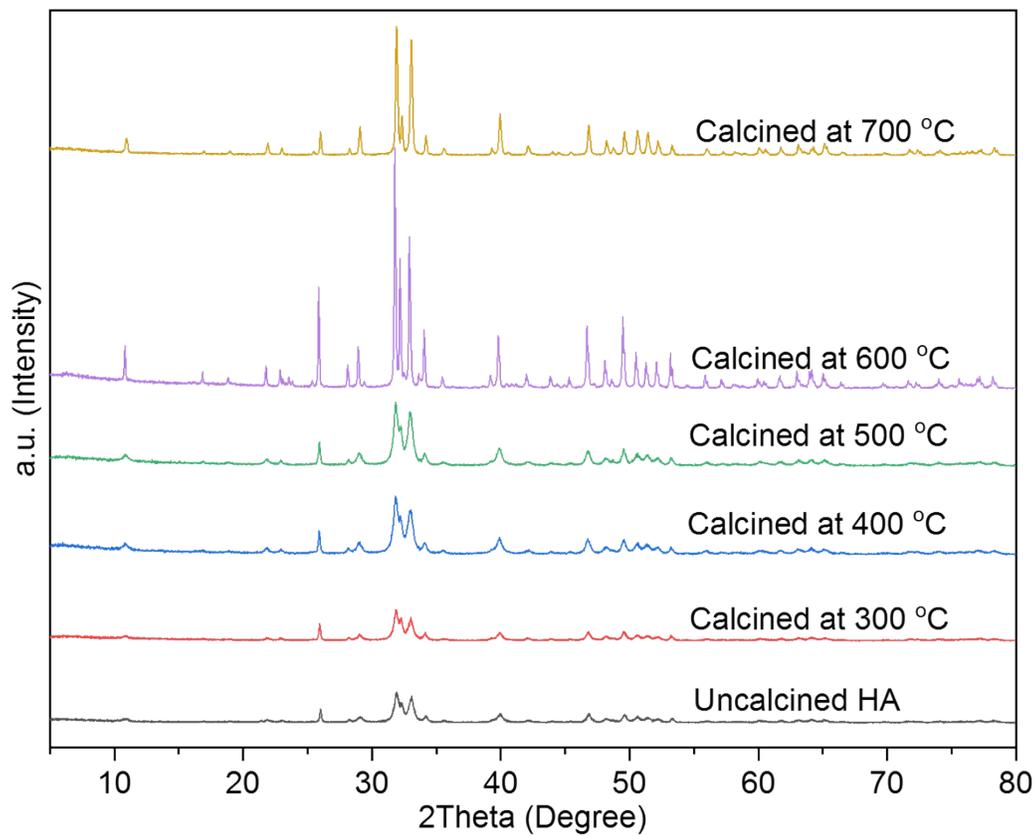


Figure S2. XRD patterns of calcined HA at different temperatures.

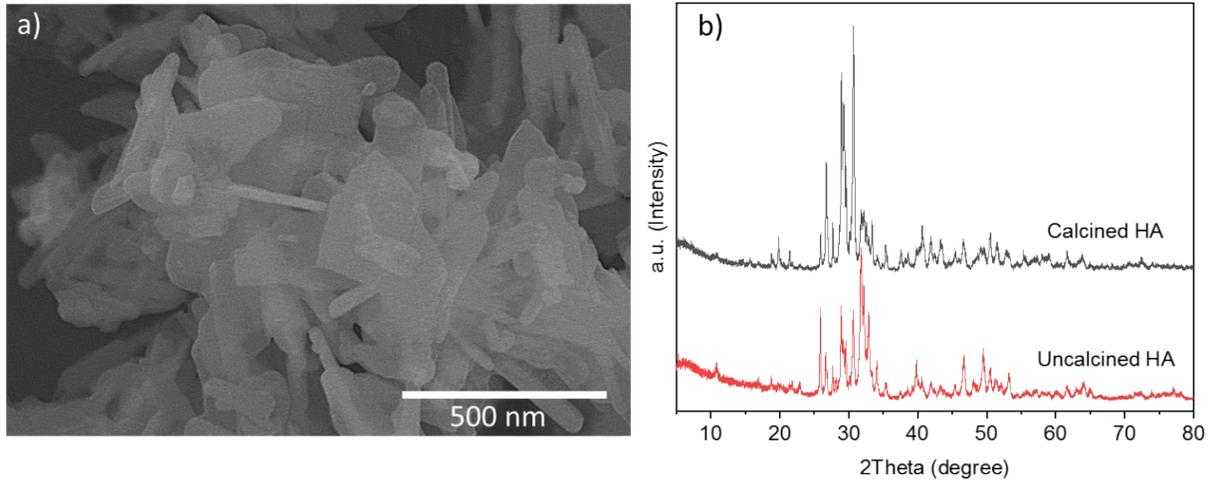


Figure S3. a) SEM image and b) XRD pattern is related to an (uncalcined and calcined at 600 °C) HA synthesized in the absence of g-C₃N₄.

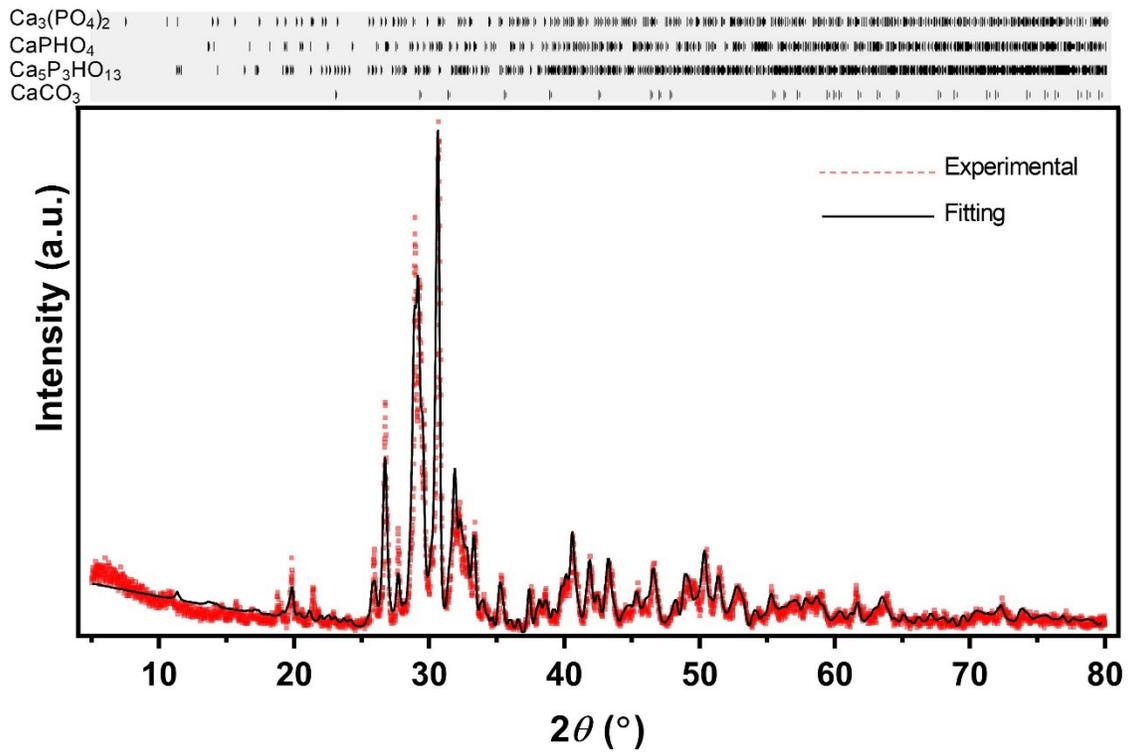


Figure S4. The X-ray diffraction and the refinement patterns of the calcined HA synthesized in the absence of g-C₃N₄ template. The top panel corresponds the peaks to the four phases present in the sample.

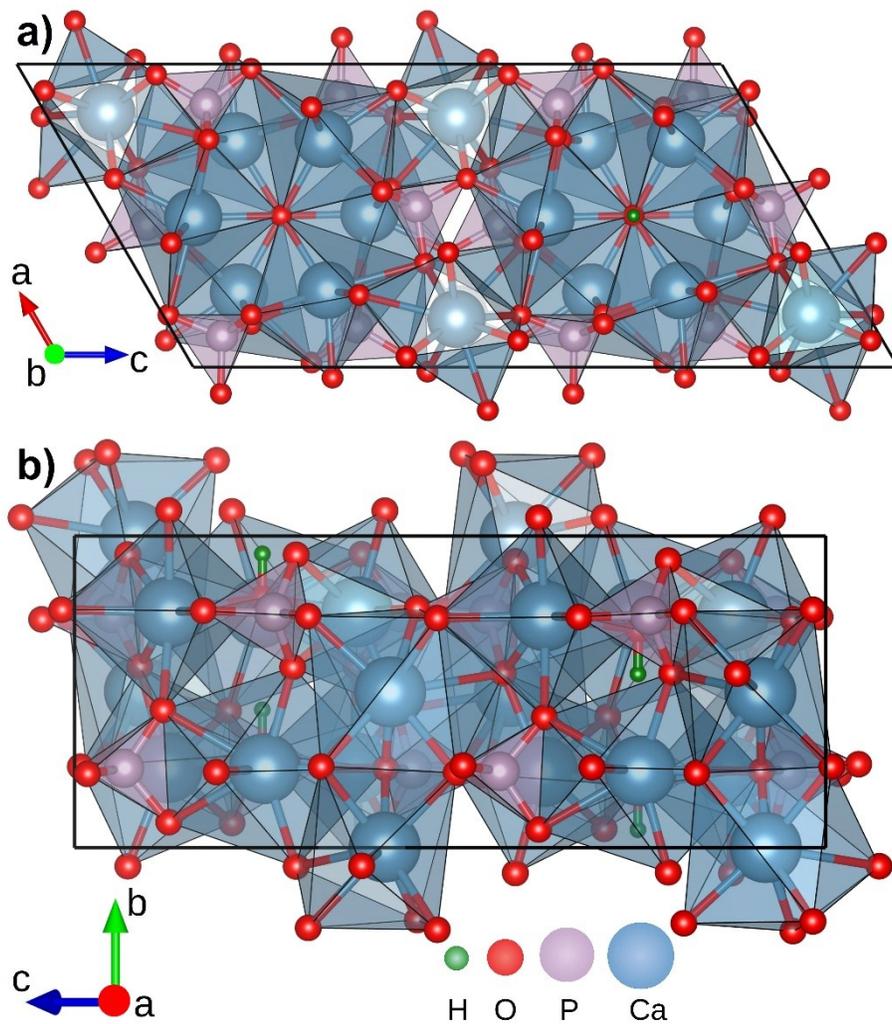


Figure S5. a) The top and b) the side view of the crystal structure of the monoclinic (space group $P2_1/c$) HA obtained in samples synthesized in the absence of $g\text{-C}_3\text{N}_4$ template. The refined lattice parameters were: $a = 9.53682 \text{ \AA}$, $b = 7.11675 \text{ \AA}$, $c = 19.32384 \text{ \AA}$, $\alpha = 90^\circ$, $\beta = 121.51372^\circ$, $\gamma = 90^\circ$.

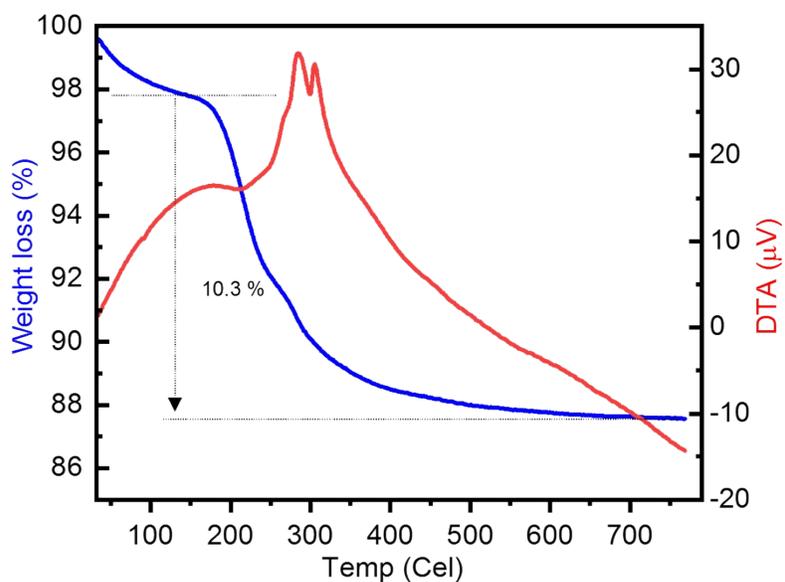


Figure S6. TG-DTA profiles of un-calcined HA indicating the loss of g-C₃N₄ in terms of weight loss.

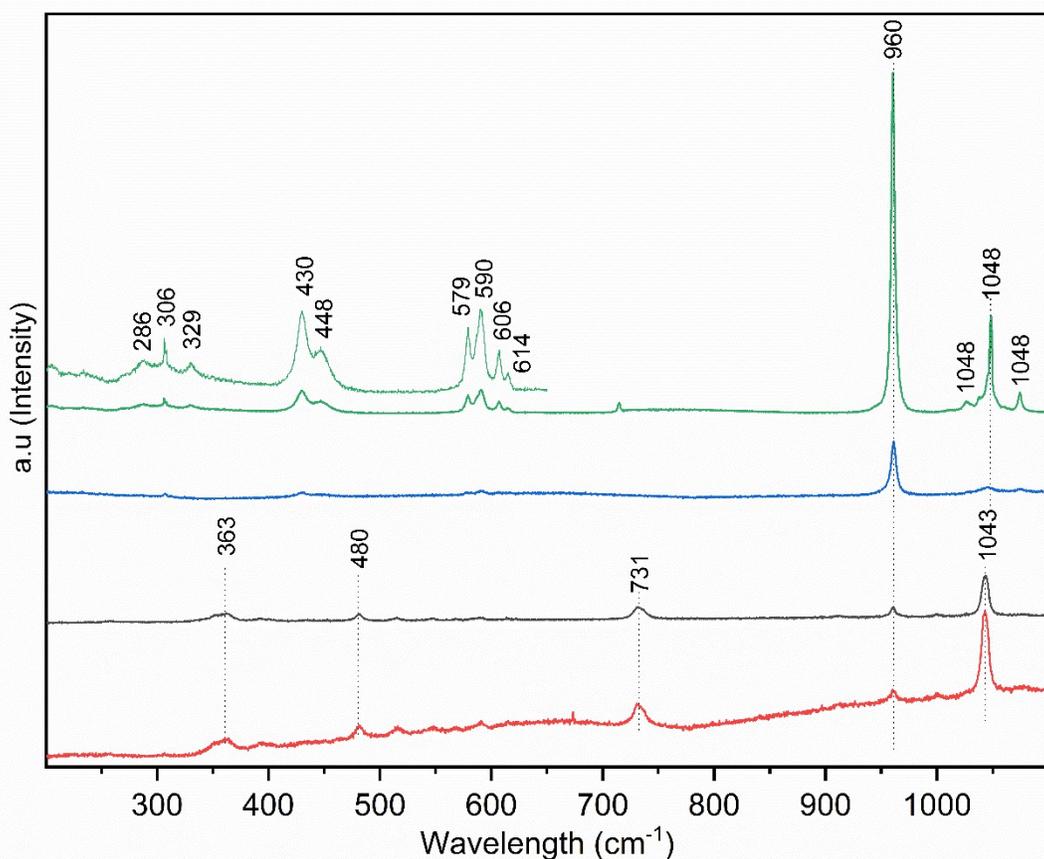


Figure S7. Raman spectra of hexagonal HA synthesized in the presence of template (g-C₃N₄) before (blue color) and after calcination at 600 °C (green color). Monoclinic HA synthesized in the absence of template before (red color) and after (black color) calcination at 600 °C.

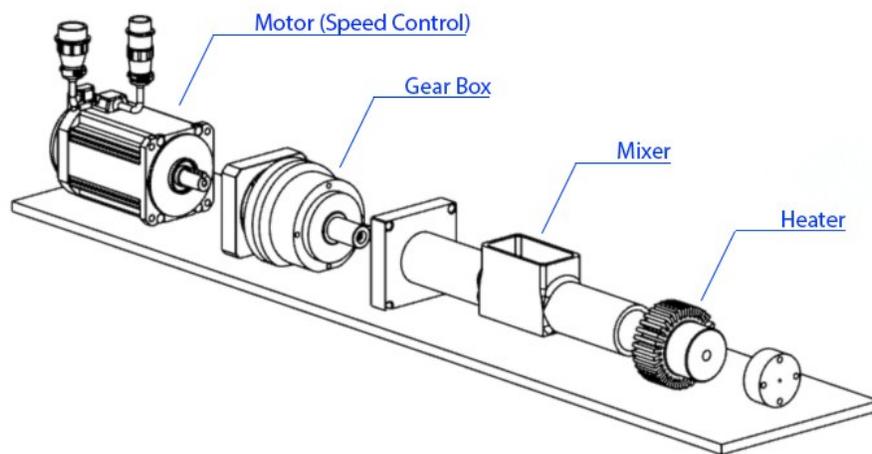


Figure S8. Schematic diagram of filament extruder.