

Figure S1. Representative thermogravimetric analysis (TGA) profiles of glucose, α TCP, and 20 wt % 100-150 μ m GMPs with glucose-saturated aqueous Na_2HPO_4 solution under an inert nitrogen atmosphere. Oxygen was introduced into the system at 450°C, at which point the residue carbon was subjected to combustion. The observed mass remaining of the 20% GMP group (67.3 %) is lower than expected due to the deposition of glucose from the glucose-saturated solution. Weight % data are normalized to the initial weight after the evaporation of water at 100°C.

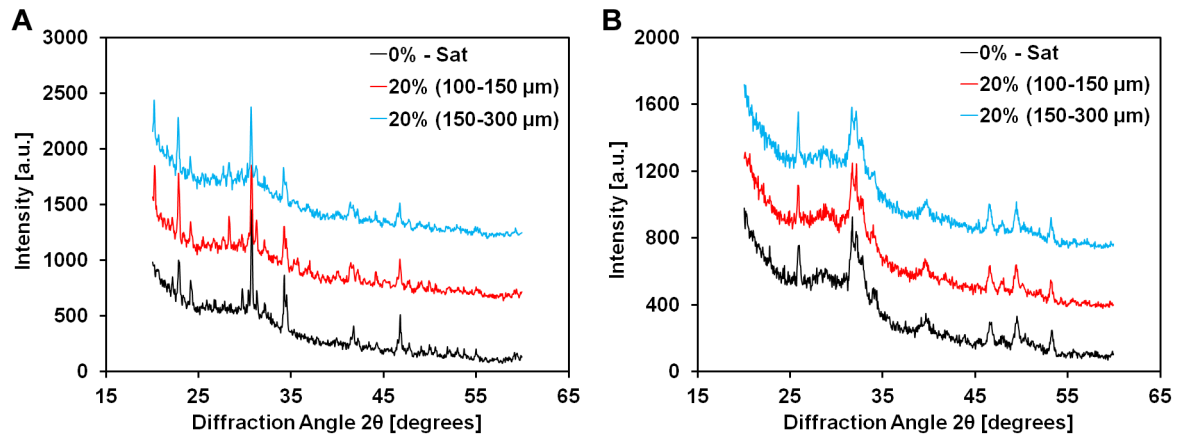


Figure S2. X-ray diffraction (XRD) patterns for different GMP/CPC formulations analyzed (A) pre leached and (B) post leached. Spectra reveal that all α TCP transforms into HA as seen by the disappearance of the peak at a 2θ value of 30° and the emergence of two peaks at 2θ values of 25.8° and 31.8° .

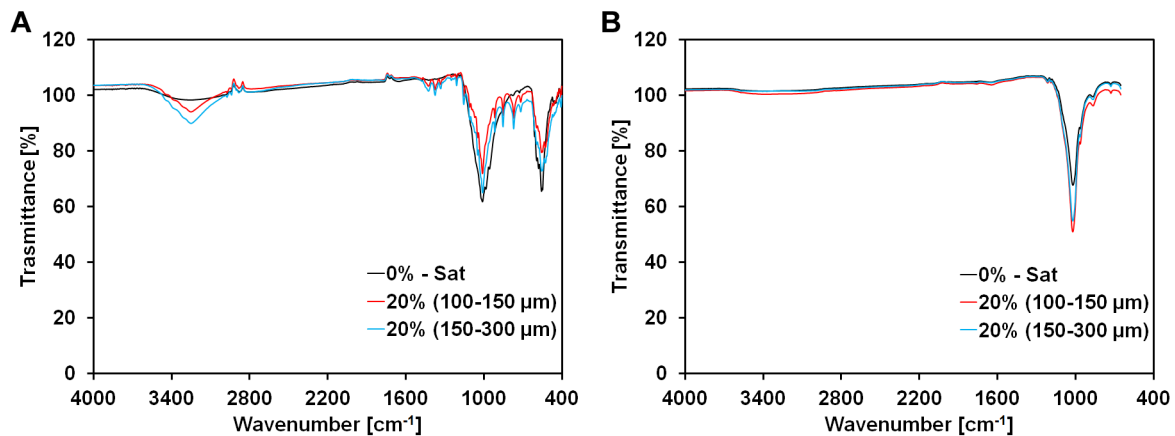


Figure S3. Fourier transform infrared spectroscopy (FTIR) patterns for different GMP/CPC formulations analyzed (A) pre leached and (B) post leached. Spectra show absorption bands characteristic for apatite at 900 cm^{-1} while the disappearance of the C=O and O-H stretch at 1500 cm^{-1} and 3200 cm^{-1} , respectively, confirms the dissolution of glucose within 72 hrs.

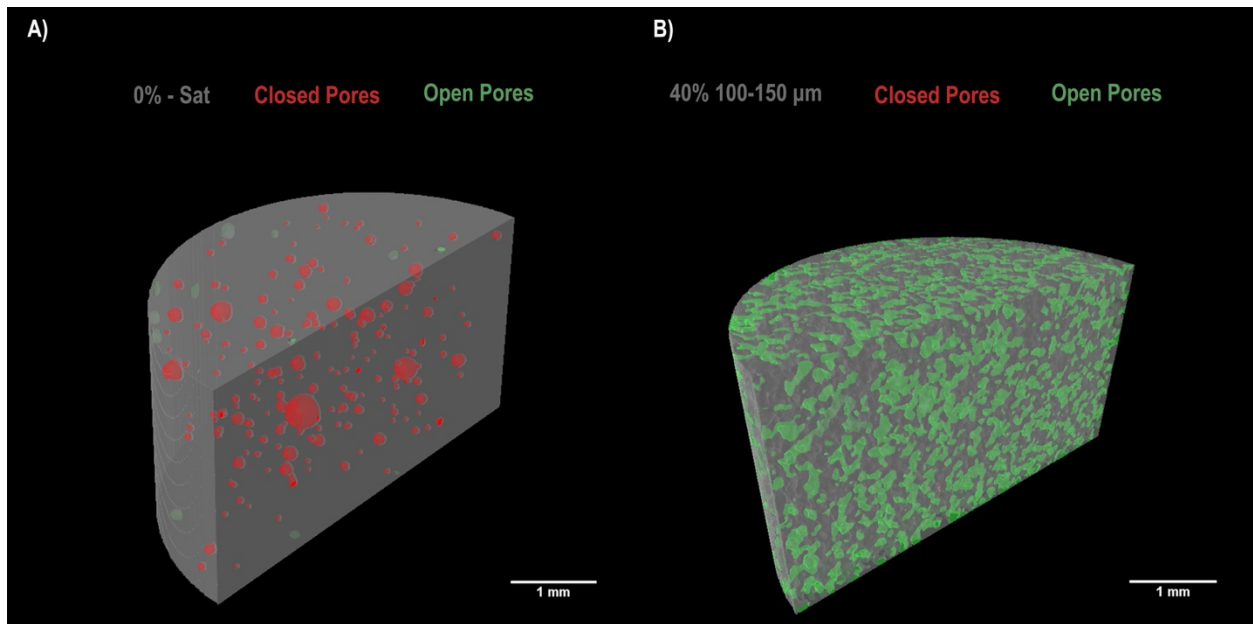


Figure S4. Representative μCT reconstructions of 0%- Sat (A) and 40% 100-150 μm (B) GMP/CPC composites sectioned in half. Grey represents the bulk phase while red and green represent closed and open pores, respectively. Scale bar represents 1 mm.

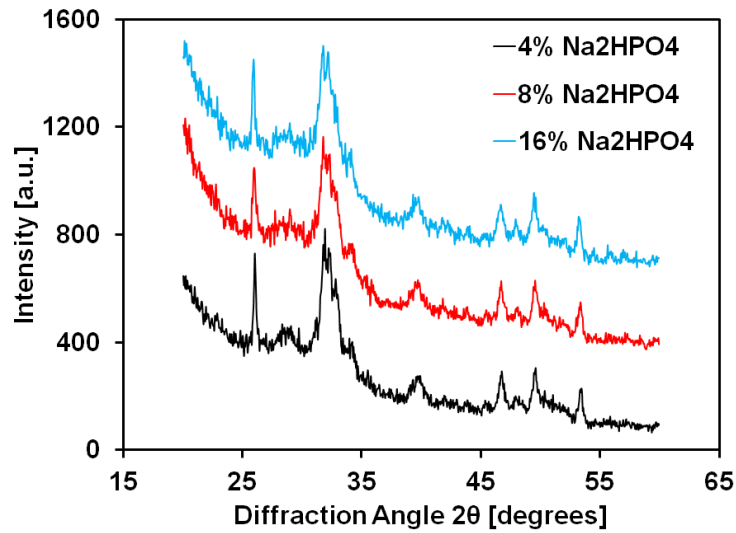


Figure S5. X-ray diffraction (XRD) patterns where the concentration of Na_2HPO_4 was increased for 20% 100-150 μm GMP/CPC composites. Samples were placed in PBS for 72 hours. Spectra reveal that increasing the concentration of Na_2HPO_4 does not lead to crystallographic changes.

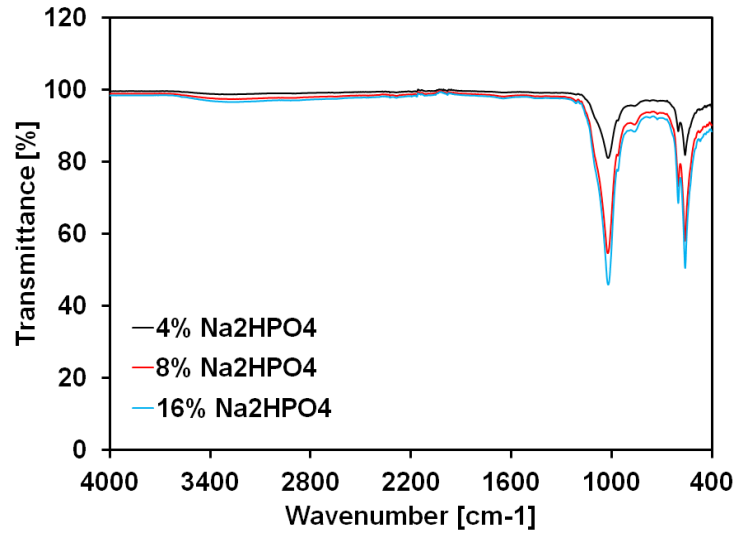


Figure S6: Fourier transform infrared spectroscopy (FTIR) patterns where the concentration of Na_2HPO_4 was increased for 20% 100-150 μm GMP/CPC composites. Samples were placed in PBS for 72 hours. Spectra reveal that increasing the concentration of Na_2HPO_4 within the liquid phase does not influence the transition to hydroxyapatite.