

Supplementary material

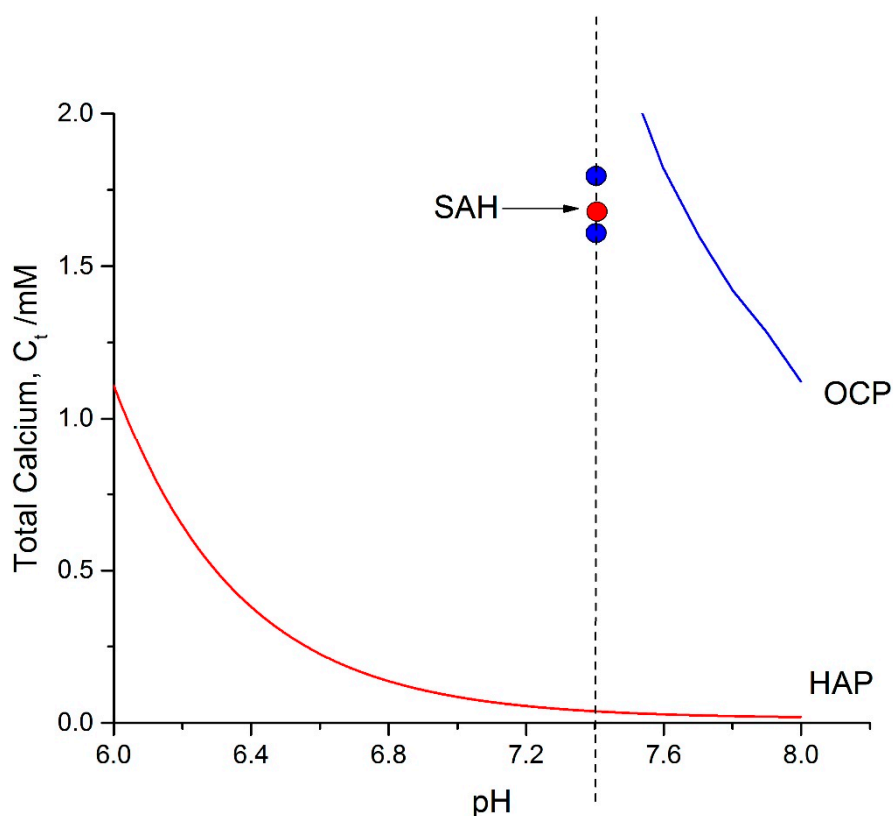


Figure S1. Solubility isotherms calculated for HAP and OCP; 0.15 M NaCl; Total Calcium: Total Phosphate = 1.67. Red circle: Simulated aqueous humor; Blue circles define the limits of calcification experiments in the present work.

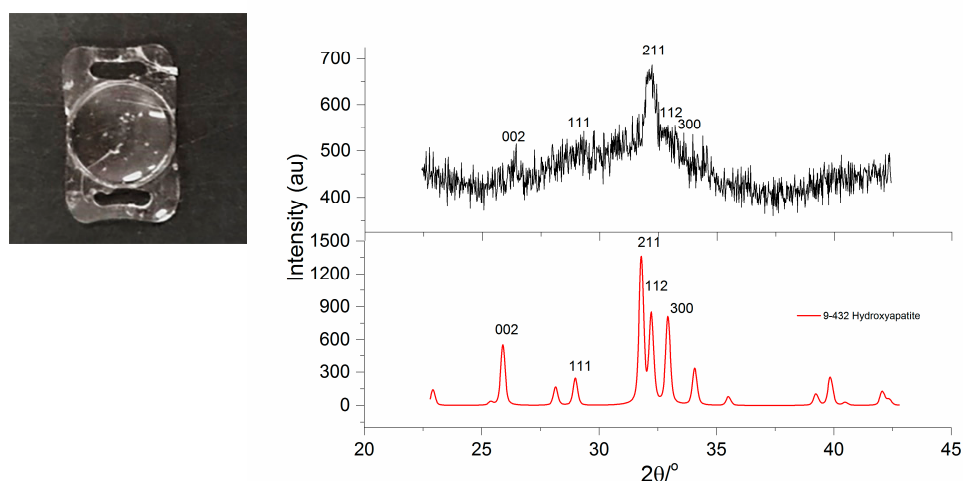
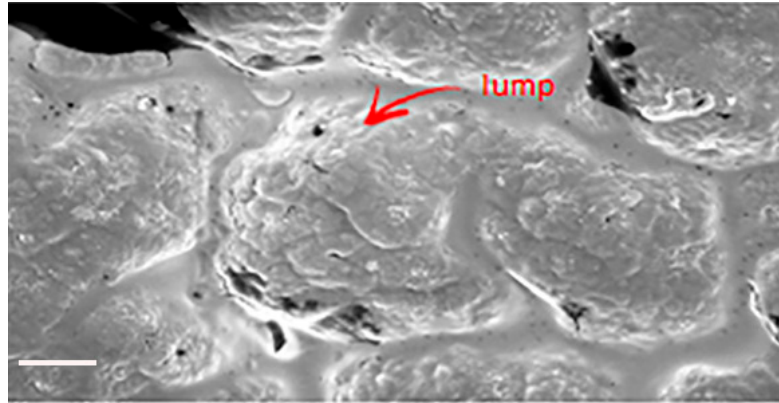
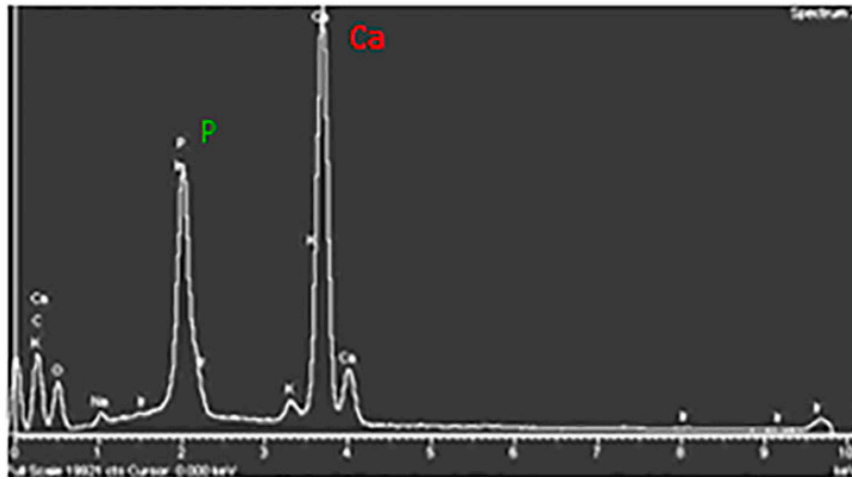


Figure S2. Left: Photograph of the opacified IOL with HAP deposits. X-Ray diffractogram of the calcified hydrophilic IOL; simulated aqueous humor, Total Calcium, $C_{\text{a}}=1.7$ mM, Total Phosphate, $P_{\text{i}}=0.6$ mM, 0.15M NaCl, pH 7.40, 37°C. Upper diffractogram IOL. Lower: Standard from International Center for Diffraction Data (ICDD) PDF-2 Database, Card File No. 9-432 for HAP.



a



b

Figure S3. calcification of hydrophilic IOLs below the surface; (a) The surface of the IOLs is characterized by the presence of lumps which contain HAP formed in the interior of the IOL. Bar 2 μ M. (b) EDX microanalysis of the lumps on the surface of the IOL showing that they consist of calcium phosphate crystal deposits.