

Supplementary Materials

Effects of Synthesis Conditions on the Formation of Si-Substituted Alpha Tricalcium Phosphates

Katarzyna Szurkowska ¹, Łukasz Szeleszczuk ² and Joanna Kolmas ^{1,*}

¹ Chair of Analytical Chemistry and Biomaterials, Department of Analytical Chemistry, Medical University of Warsaw, Faculty of Pharmacy, ul. Banacha 1, 02-097 Warsaw, Poland; katarzyna.szurkowska@wum.edu.pl

² Chair of Physical Pharmacy, Department of Physical Chemistry, Medical University of Warsaw, Faculty of Pharmacy, ul. Banacha 1, 02-097 Warsaw, Poland; lukasz.szeleszczuk@wum.edu.pl

* Correspondence: joanna.kolmas@wum.edu.pl; Tel.: +48 22 5720755

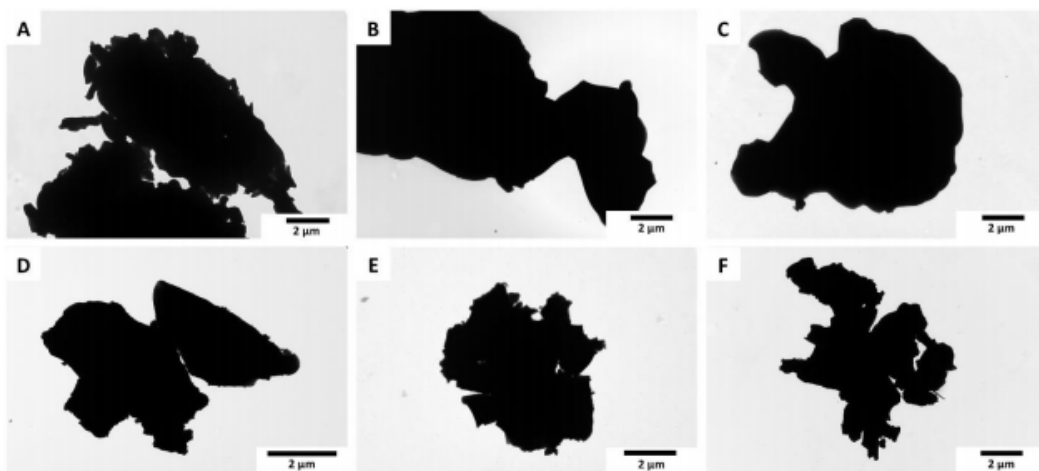


Figure S1. TEM images of 09Si-aTCP (A), 18Si-aTCP (B), 37-aTCP (C), 09Si-aTCPs (D), 18Si-aTCPs (E) and 37Si-aTCPs (F).

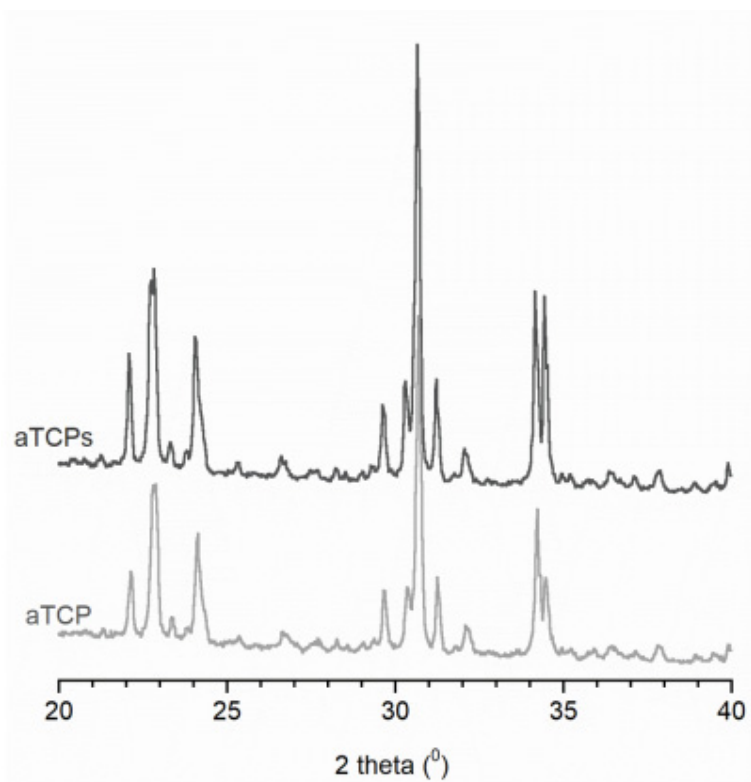


Figure S2. PXRD diffractograms of the aTCP and aTCPs samples.

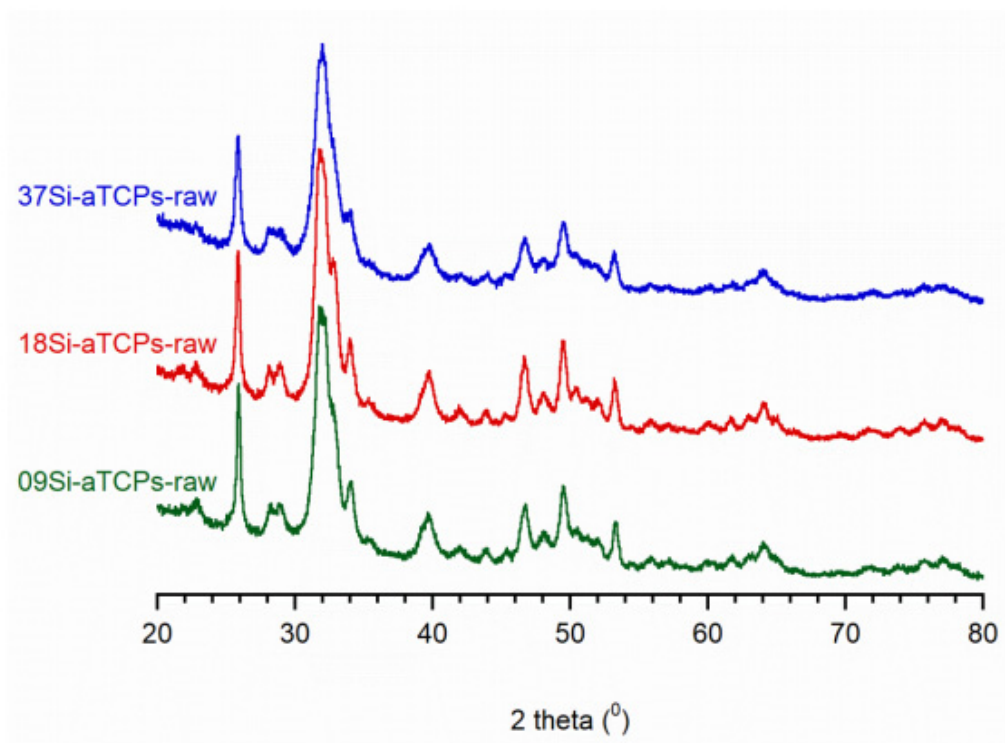


Figure S3: PXRD diffractograms of the raw, unsintered samples obtained by precipitation method.

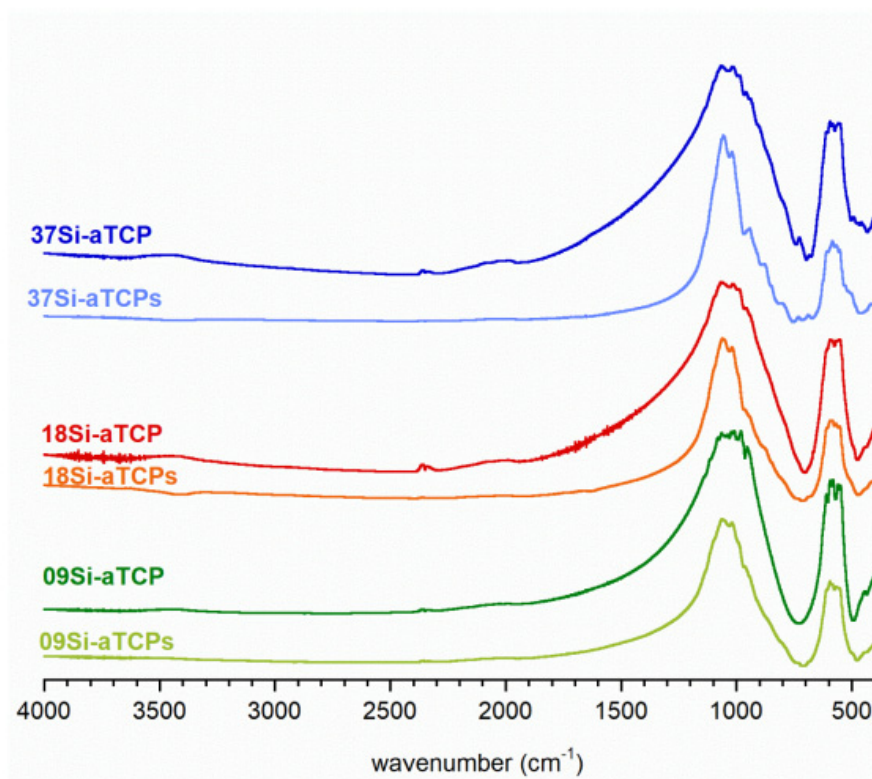


Figure S4. FTIR spectra in 4000-400 cm⁻¹ range.

Table S1: Main peak positions in PXRD diffractograms.

Peak Index	Peak position – 2 theta (°)					
	09Si-aTCP	18Si-aTCP	37-aTCP	09Si-aTCPs	18Si-aTCPs	37Si-aTCPs
201	22.20	22.24	22.33	22.28	22.45	22.42
16-2	22.84	22.75	22.84	22.80	22.96	22.92
33-2	22.92	22.96	23.00	23.00	23.18	23.14
161	24.20	24.15	24.20	24.20	24.36	24.28
36-1	29.74	29.74	29.83	29.74	29.92	29.87
40-1	30.42	30.34	30.38	30.34	30.50	30.46
034	30.76	30.80	30.85	30.80	30.97	30.93
33-5	31.31	31.31	31.36	31.31	31.48	31.44
290	34.28	34.24	34.28	34.24	34.40	34.36
400	34.53	34.66	34.75	34.66	34.87	34.78

Table S2. PXRD Data.

Sample	Spacegroup	Parameter <i>a</i>	Parameter <i>b</i>	Parameter <i>c</i>	β
aTCP	P21/a	12.8752	27.2760	15.2140	126.190
aTCPs	P21/a	12.8828	27.2740	15.2191	126.179
09Si-aTCPs_raw	P63/m	9.4310		6.8708	
18Si-aTCPs_raw	P63/m	9.4247		6.8756	
37Si-aTCPs_raw	P63/m	9.4257		6.8760	