

Supplementary materials

Varying Synthesis Conditions and Comprehensive Characterization of Fluorine-Doped Hydroxyapatite Nanocrystals in a Simulated Body Fluid

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Citation: Thakur, D.; Yeh, S.-C.; Cheng, R.-H.; Loke, S. S.; Wei, H.-H.; Cheng, P.-Y.; Lai, Y.-C.; Chen, H.-Y.; Huang, Y.-R.; Ding, S. Varying Synthesis Conditions and Comprehensive Characterization of Fluorine-Doped Hydroxyapatite Nanocrystals in a Simulated Body Fluid. *Crystals* **2022**, *12*, 139. <https://doi.org/10.3390/cryst12020139>

Academic Editor: Dr. Roberto Comparelli

Received: 3 January 2022

Accepted: 17 January 2022

Published: 20 January 2022

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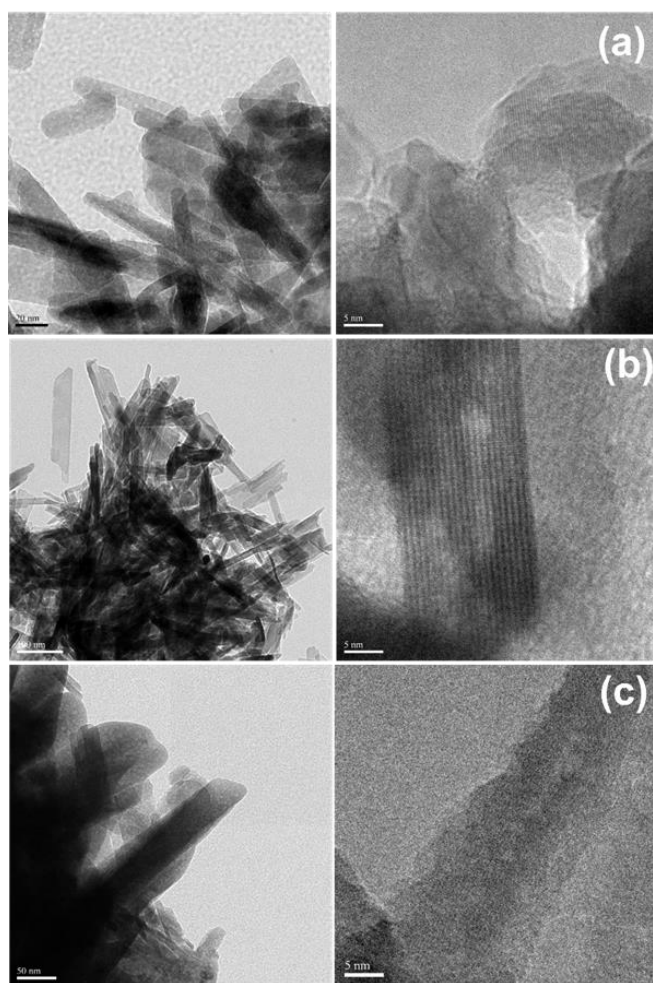


Figure S1. HRTEM images of HAp synthesized in SBF at different pH values pH=7.0 (a); pH=7.2 (b) and pH=7.4 (c).

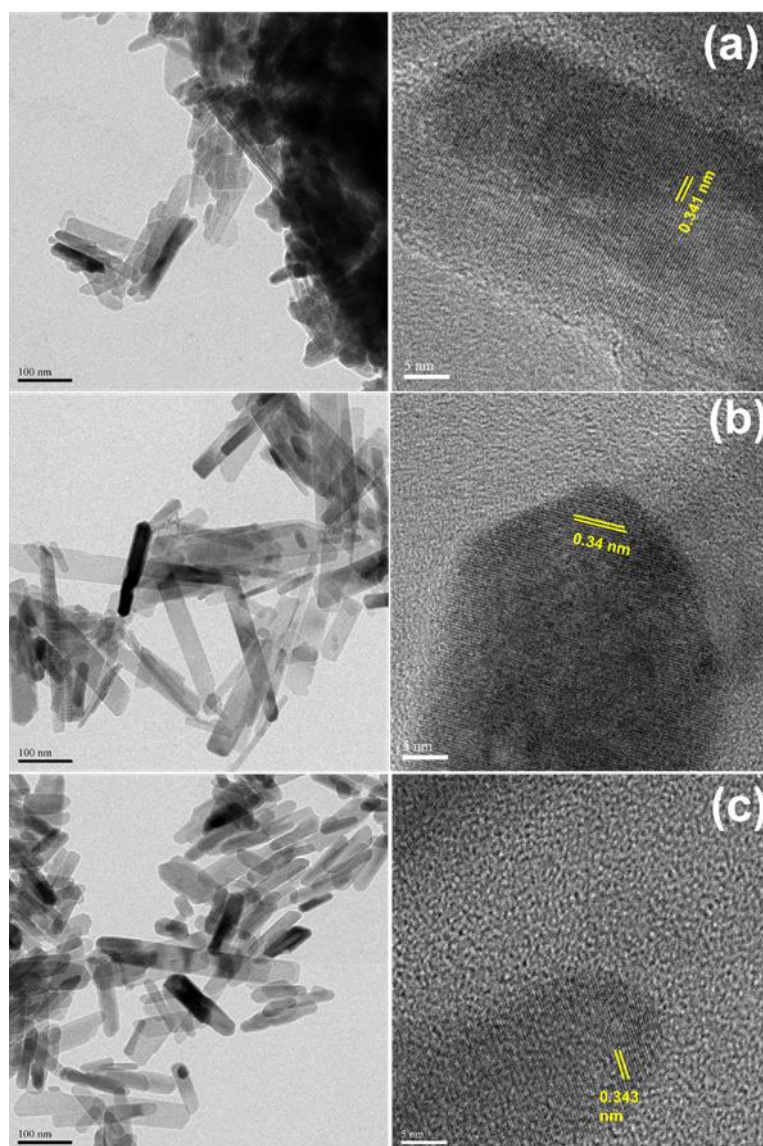


Figure S2. HRTEM images of HAp synthesized in SBF followed by soaking in NaF solution at 0.0025 M for 1 day (a); 3 days (b) and 7 days (c).

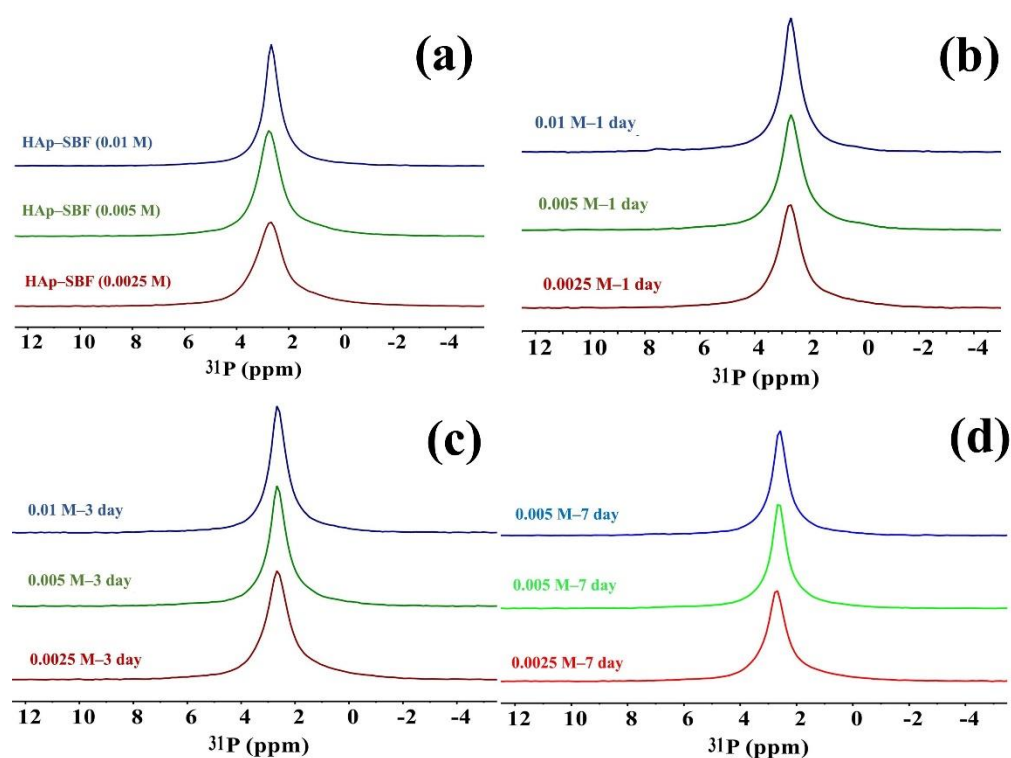


Figure S3. (a): ^{31}P 35 kHz MAS NMR spectra of HAp synthesized in different NaF concentrations; (b): ^{31}P 35 kHz MAS NMR spectra of HAp synthesized in BSF and soaked in NaF solutions at different concentrations for 1 days; (c): ^{31}P 35 kHz MAS NMR spectra of HAp synthesized in BSF and soaked in NaF solutions at different concentrations for 3 days; (d): ^{31}P 35 kHz MAS NMR spectra of HAp synthesized in BSF and soaked in NaF solutions at different concentrations for 7 days.

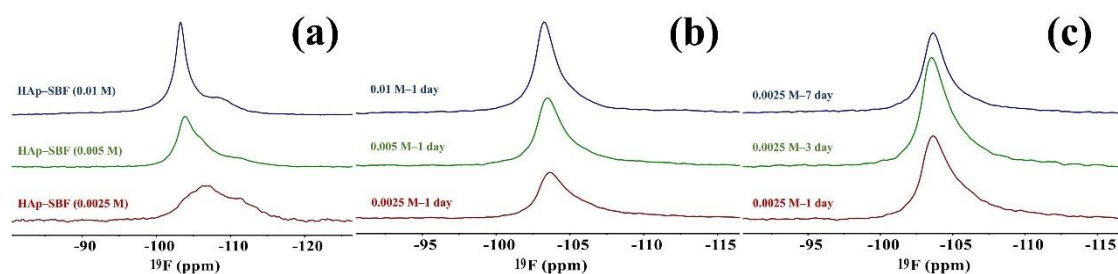


Figure S4. (a): ^{19}F 35 kHz MAS NMR spectra of HAp synthesized in SBF solutions with different concentrations of F⁻ ion; (b): ^{19}F 35 kHz MAS NMR spectra of HAp soaked for 1 day in solutions with different concentrations of F⁻ ion; (c): ^{19}F 35 kHz MAS NMR spectra of HAp soaked for different days in solutions with the same concentration of F⁻ ion (2.5 mM).

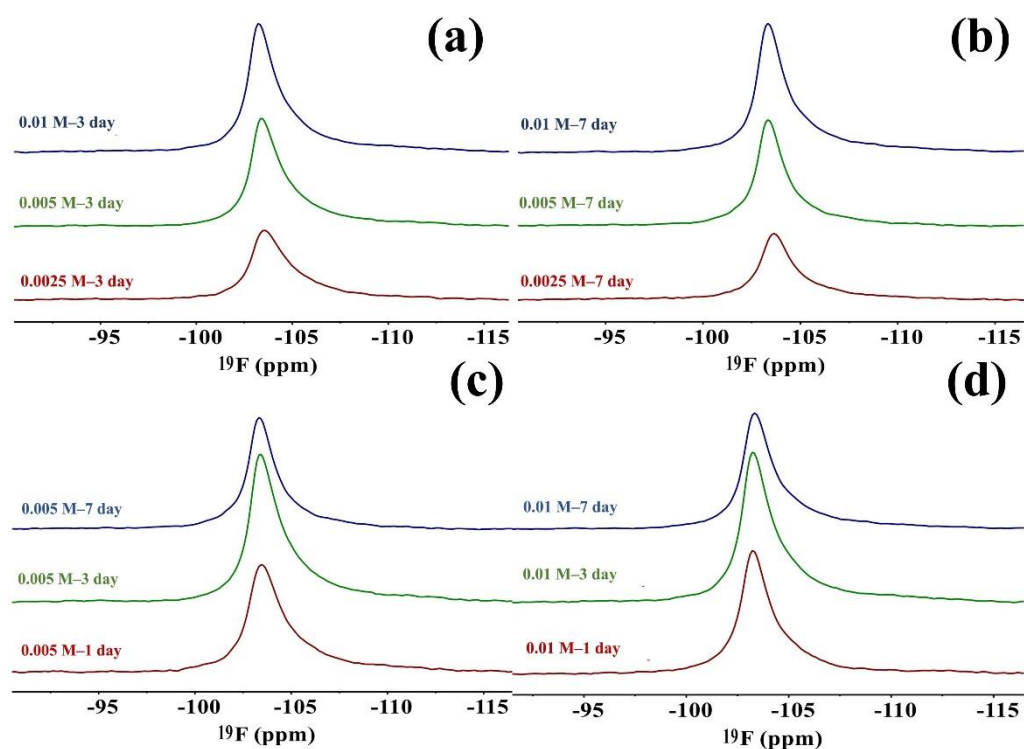


Figure S5. (a): ^{19}F 35 kHz MAS NMR spectra of HAp soaked for 3 days in solutions with different concentrations of F^- ion; (b): ^{19}F 35 kHz MAS NMR spectra of HAp soaked for 7 days in solutions with different concentrations of F^- ion; (c): ^{19}F 35 kHz MAS NMR spectra of HAp soaked for different days in solutions with the same concentration of F^- ion (5 mM); (d): ^{19}F 35 kHz MAS NMR spectra of HAp soaked for different days in solutions with the same concentration of F^- ion (10 mM).

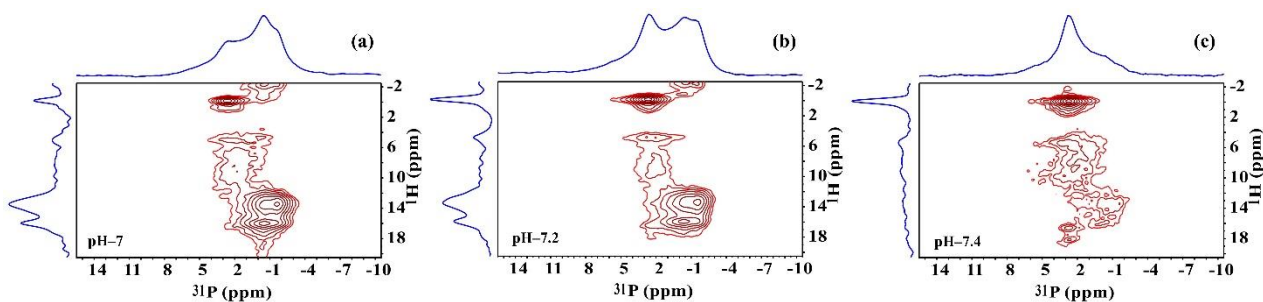


Figure S6. ^1H - ^{31}P 35 kHz HETCOR spectra of HAp synthesized in SBF at different pH values: pH=7 (a); pH=7.2 (b) and pH=7.4 (c).

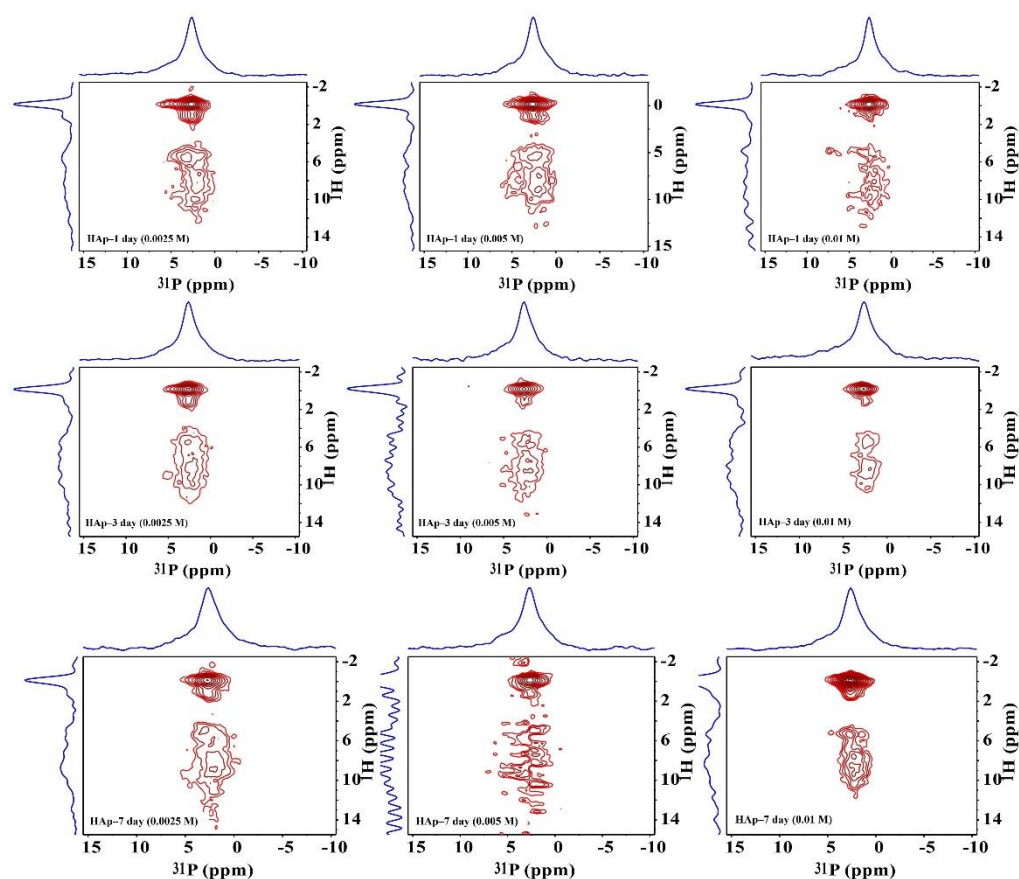


Figure S7. ^1H - ^{31}P 35 kHz HETCOR spectra of HAp synthesized in SBF and soaked in solutions at different NaF concentrations (2.5 mM, 5 mM and 10 mM) for different days (1 day, 3 days, 7 days), respectively.