

Influences of CO₂ and Fungus-Assisted Bioweathering on Fluoridated Apatite

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Supplementary Materials (Figures)

Table S1. Peak areas of PO₄³⁻ functional groups at different sites in Fig. 2a and 2b

site	Raman shift (cm ⁻¹)					
	582 v ₄ PO ₄ ³⁻	605 v ₄ PO ₄ ³⁻	963 v ₁ PO ₄ ³⁻	1032 v ₃ PO ₄ ³⁻	1058 v ₃ PO ₄ ³⁻	1078 v ₃ PO ₄ ³⁻
a1	41416	18552	266332	25029	15317	7178
a2	25336	11326	228355	19613	11060	4386
b1	8445	6721	134254			
b2	7315	6511	122955			

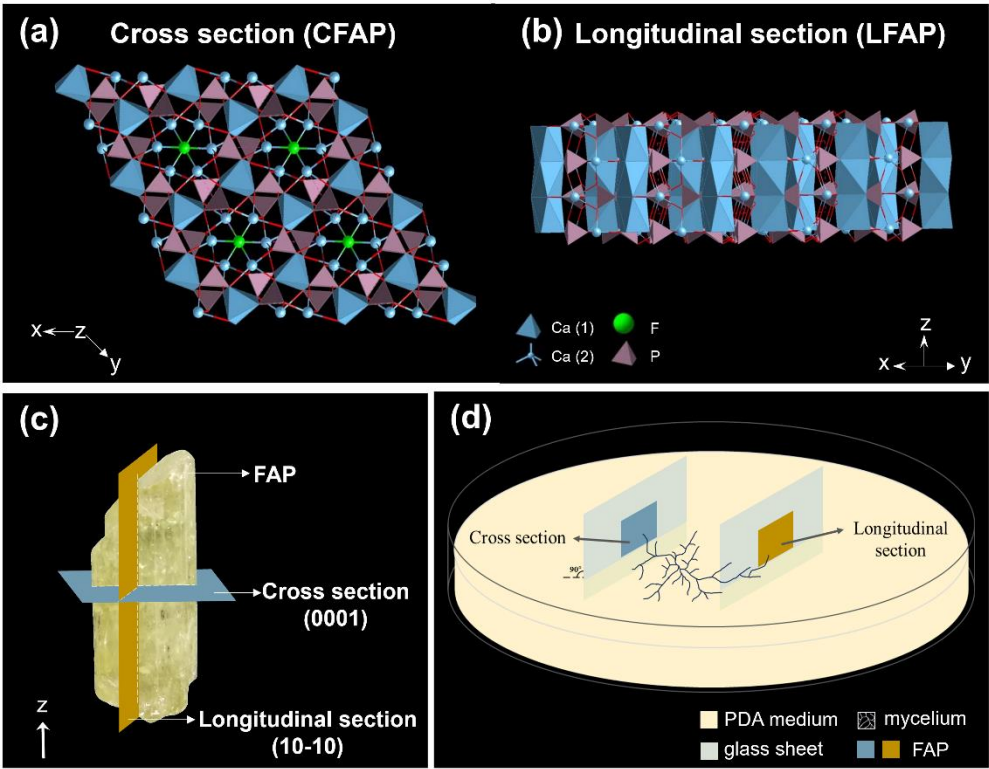


Fig. S1. 3D structural diagram of apatite cross section (a) and longitudinal section (b) (by CrystalMaker 10.4). Image c shows the cross and longitudinal section of Durango FAP. Image d is a diagram of the experimental microcosm.

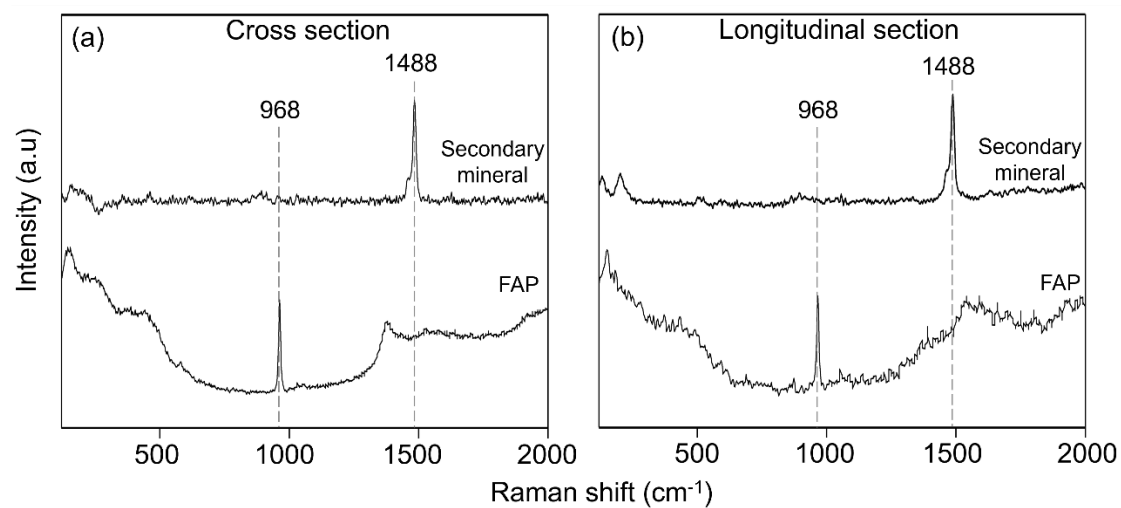
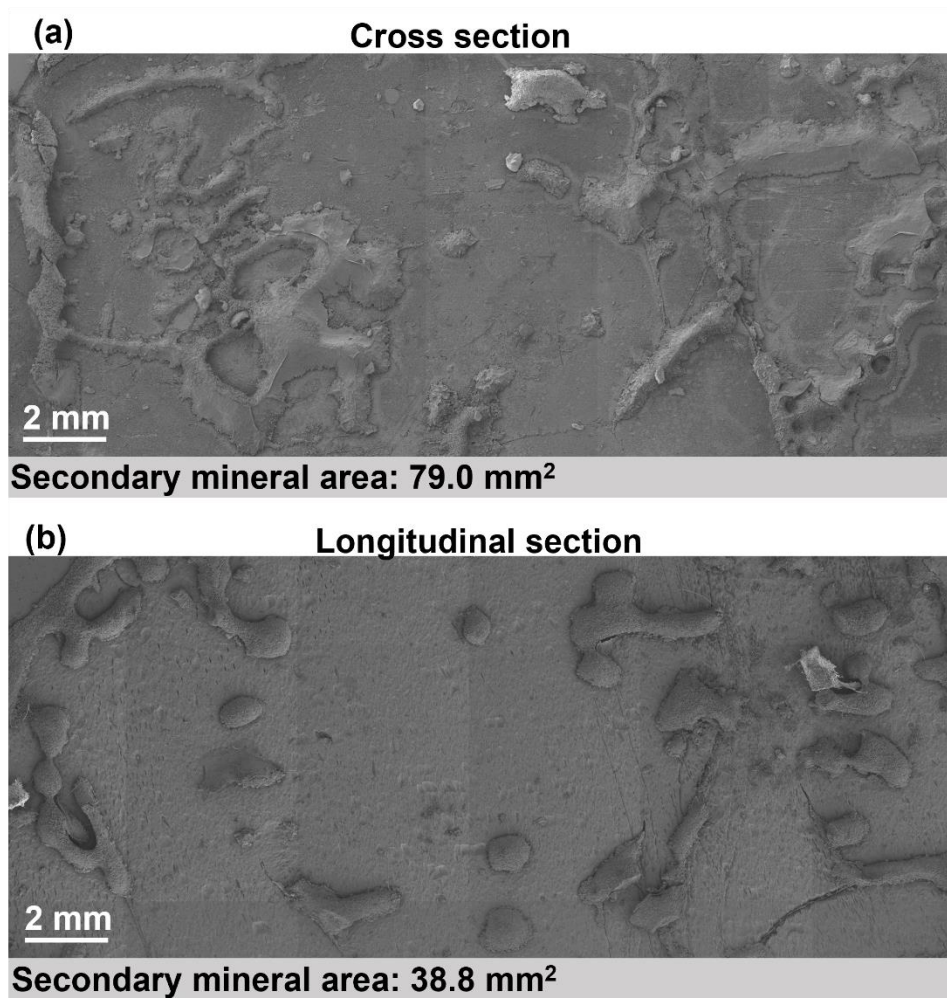


Fig. S2. RISE spot analysis (120–2000 cm⁻¹) of the initial FAP surface and the rhomboid-shaped secondary mineral in the CPSF (a) and LPSF (b) treatments.



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Fig. S3. Secondary minerals on the FAP surface in the treatments of CPSF@CO₂ and LPSF@CO₂ (a for FAP cross section and b for FAP longitudinal section).