

Article

Supplementary Material for “Comparing Polyphosphate and Orthophosphate Treatments of Solution-Precipitated Aragonite Powders”

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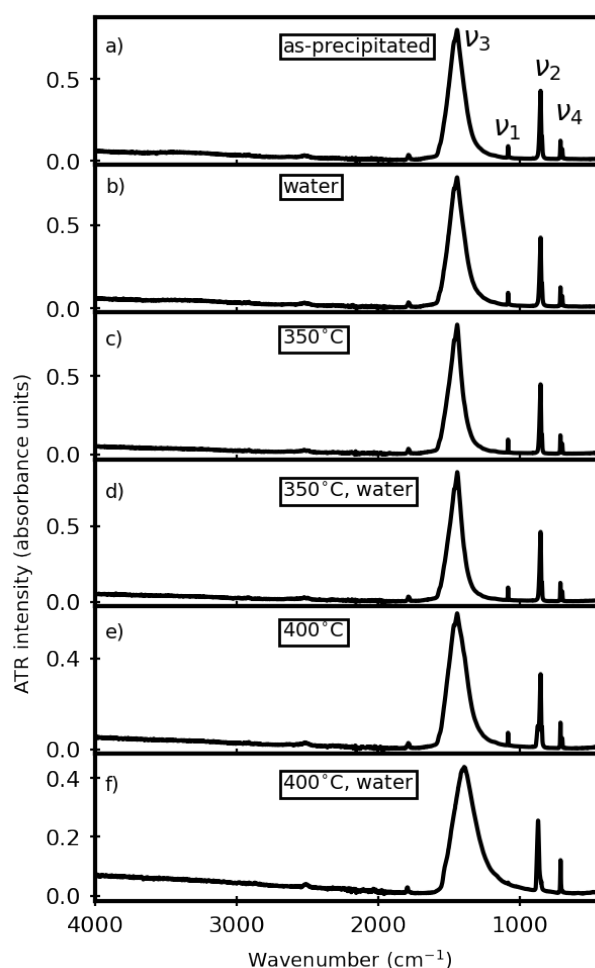


Figure S1. Representative full range ATR-FTIR spectra (400–4000 cm^{−1}) for (a) as-precipitated powders, (b) as-precipitated powders after 1 week in water, (c) as-precipitated powders + 350°C anneal, (d) as-precipitated powders + 350°C, then 1 week in water, (e) as-precipitated powders + 400°C anneal, and (f) as-precipitated powders + 400°C anneal, then 1 week in water. These data complement Figure 1 in the main text.

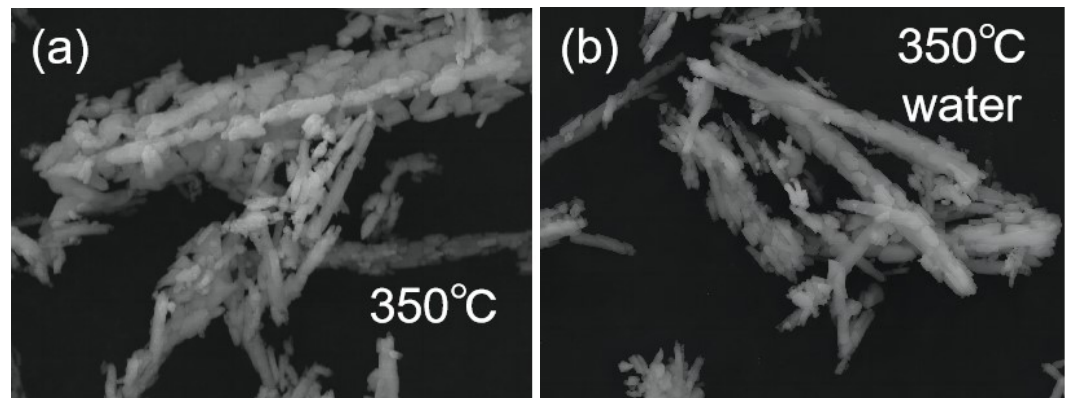


Figure S2. Representative SEM images for (a) 350°C annealed, (b) 350°C annealed then exposed to water (1 week). Each image covers a width of 50 μm . These data complement Figure 1 in the main text.

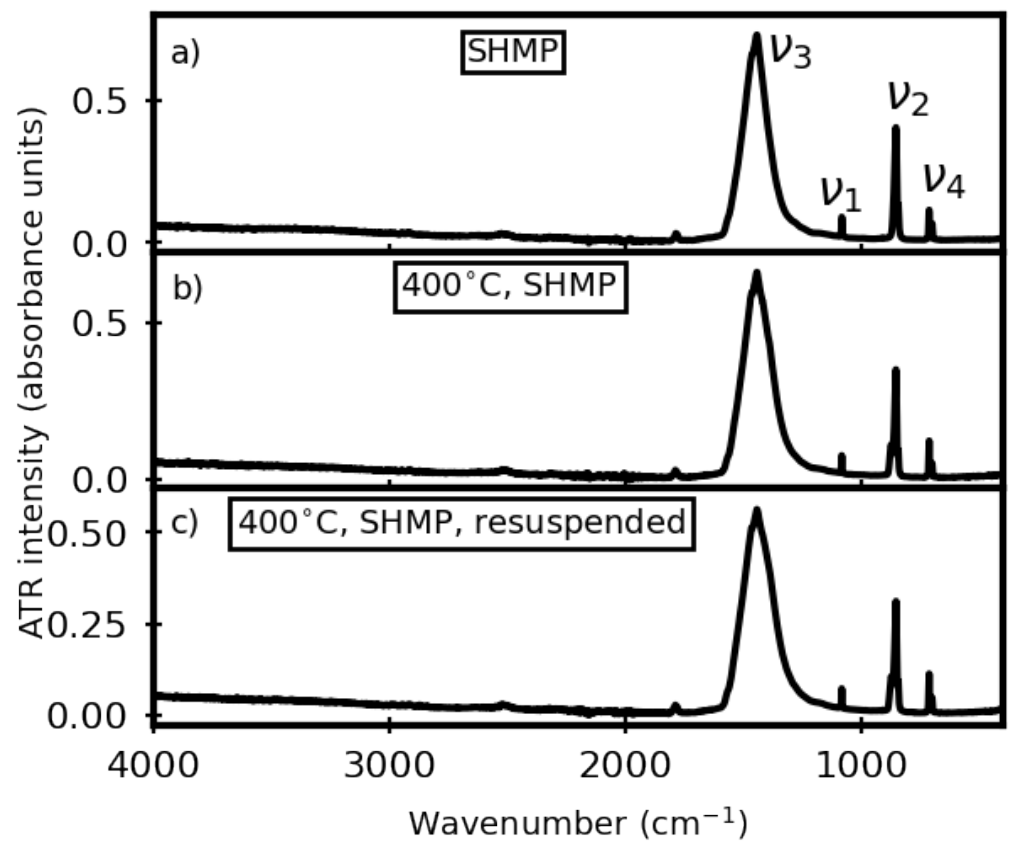


Figure S3. Representative full-range ATR-FTIR spectra ($400\text{--}4000\text{ cm}^{-1}$) for polyphosphate-treated powders after 1 week of suspension in 10 mM SHMP. These data complement Figure 2 in the main text.

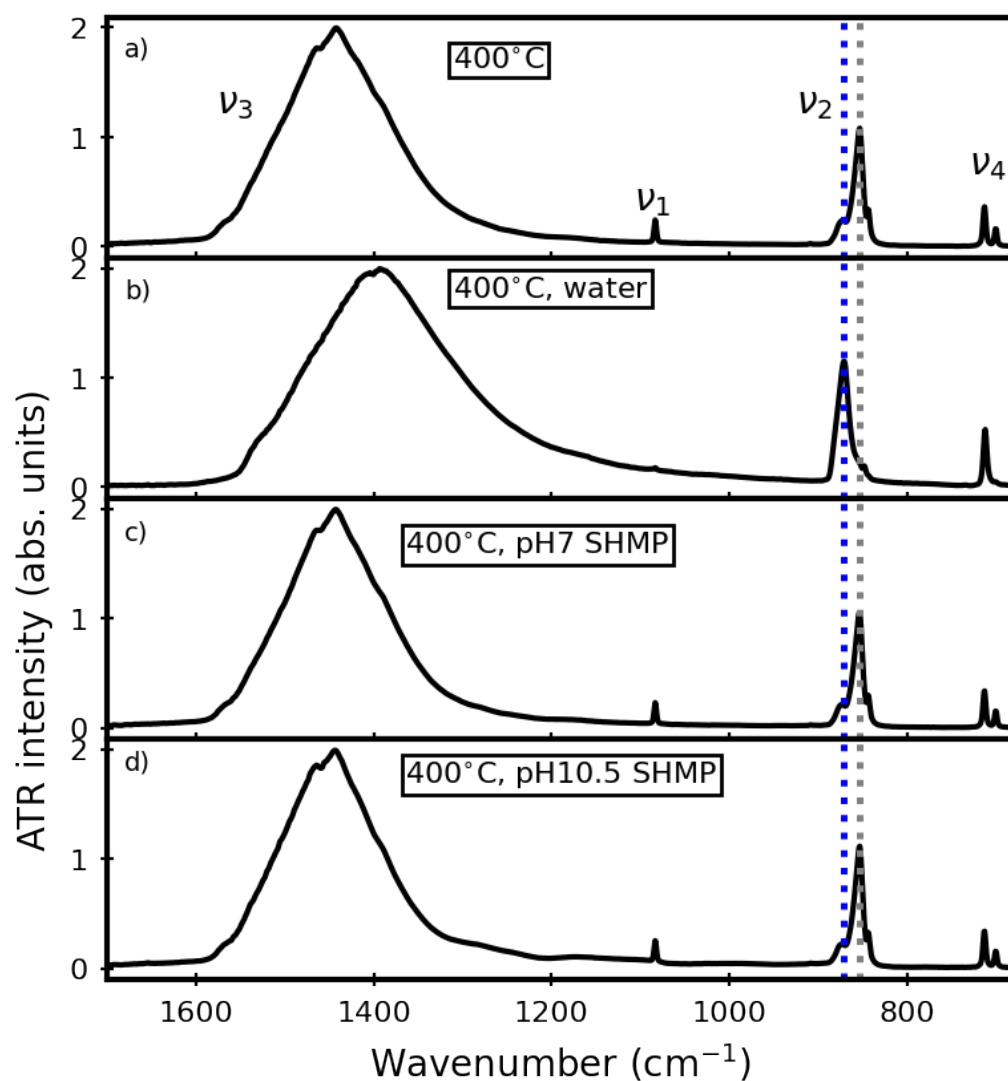


Figure S4. Representative ATR-FTIR spectra for (a) as-precipitated powders + 400°C anneal, (b) as-precipitated powders + 400°C anneal, then 1 week in water. (c) as-precipitated powders + 400°C anneal, then 1 week in pH 7 10 mM SHMP. (d) as-precipitated powders + 400°C anneal, then 1 week in pH 10.5 10 mM SHMP. The grey vertical dotted line (858 cm^{-1}) corresponds to the aragonite ν_2 peak, while the blue vertical dotted line (875 cm^{-1}) shows the calcite ν_2 peak. These data complement Figure 2 in the main text.

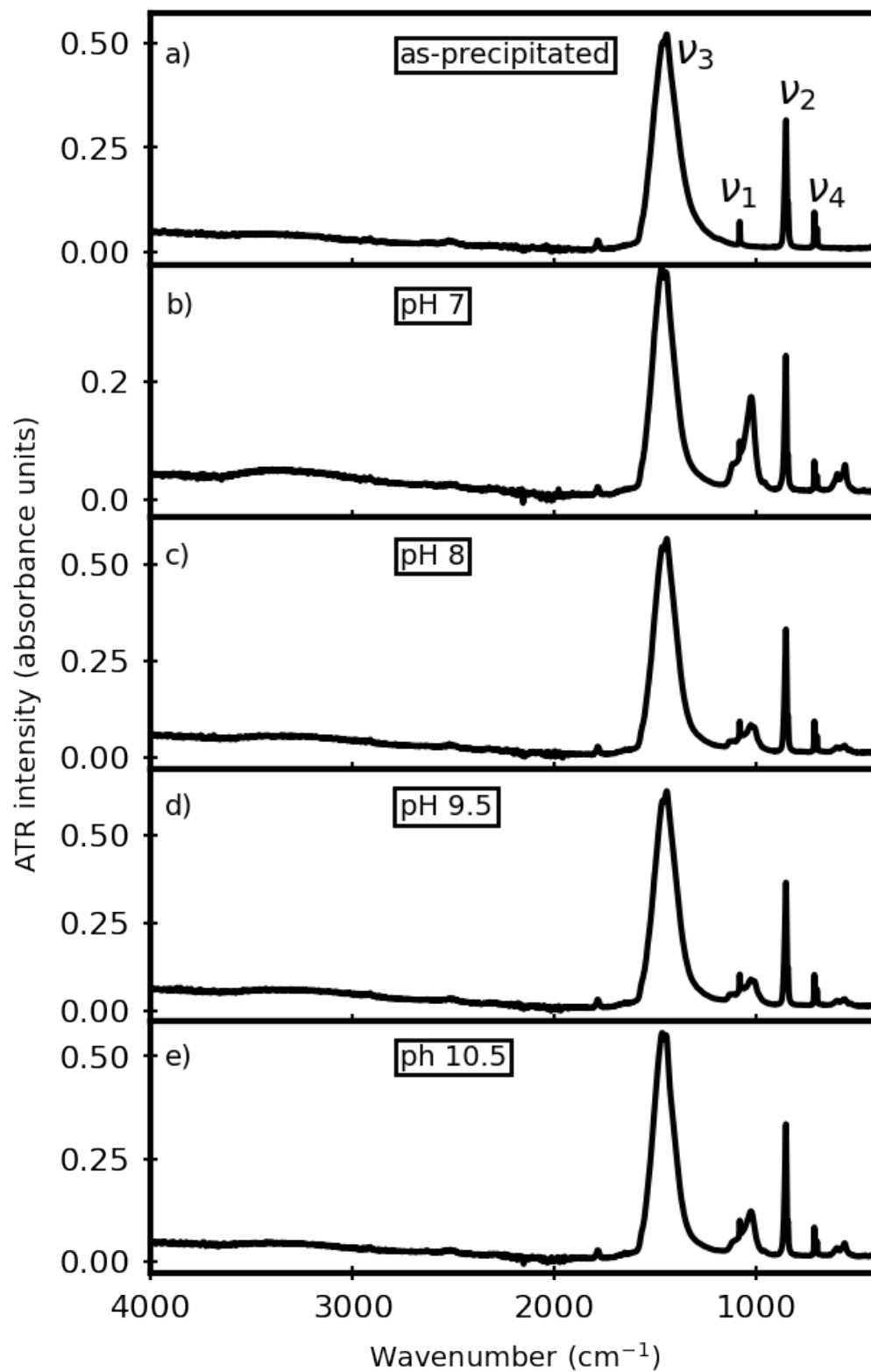


Figure S5. Representative full-range ATR-FTIR spectra ($400\text{--}4000\text{ cm}^{-1}$) of as-precipitated powders before (a) and after orthophosphate treatments beginning near-neutral (pH 7, in (b)) to alkaline (pH 10.5, in (e)). These data complement Figure 3 in the main text.