

Supplementary Information

On Mineral Retrosynthesis of a Complex Biogenic Scaffold

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Supplementary Video:

Initial ethanol-mediated dehydration and subsequent hydration of the egg membrane observed using a light microscope in reflective mode.

Figure S1. Enrichment of Ca^{2+} ions by mammillae as depicted by fluorescence microscopy of a decalcified, calcein-stained egg membrane. Scale bar represents 50 μm . Inset represents an image at a lower magnification.

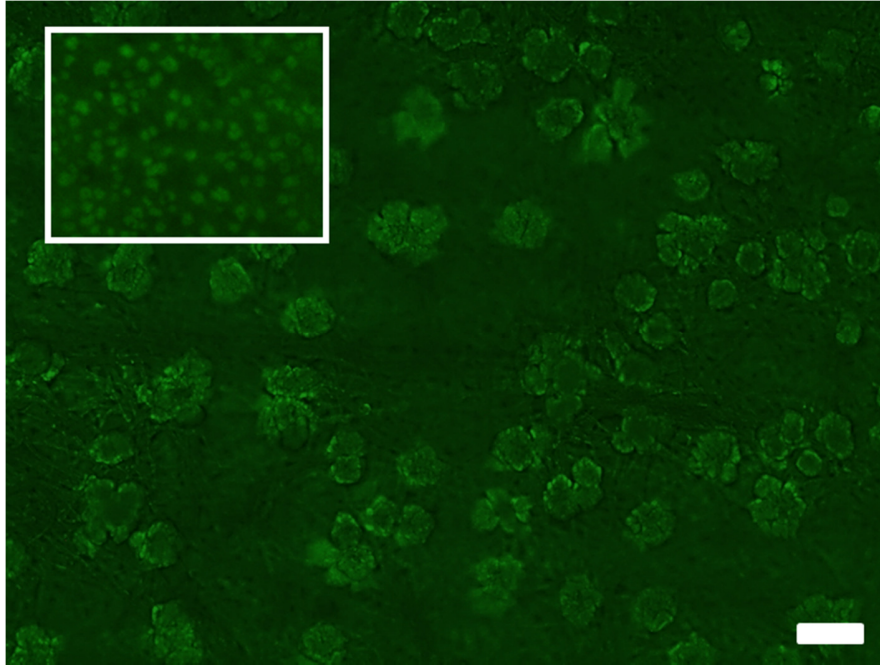
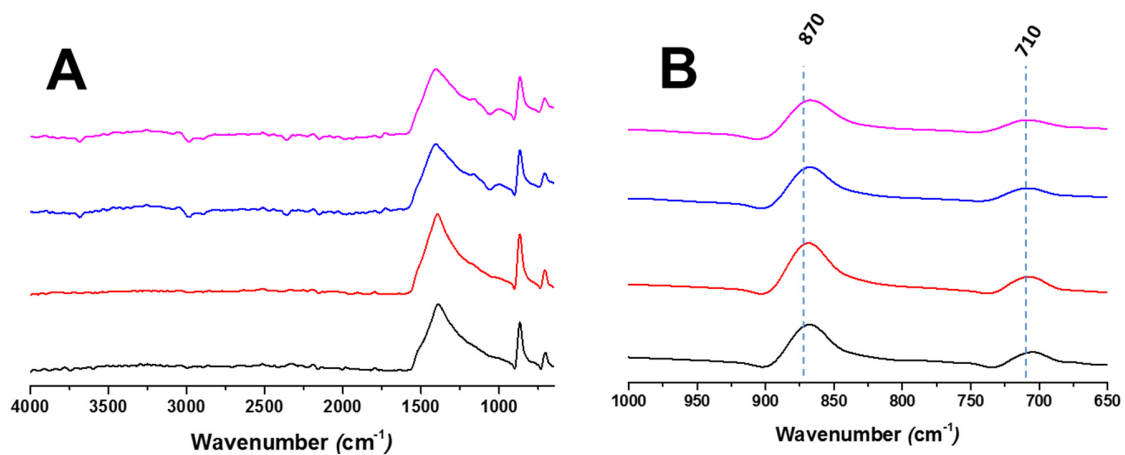
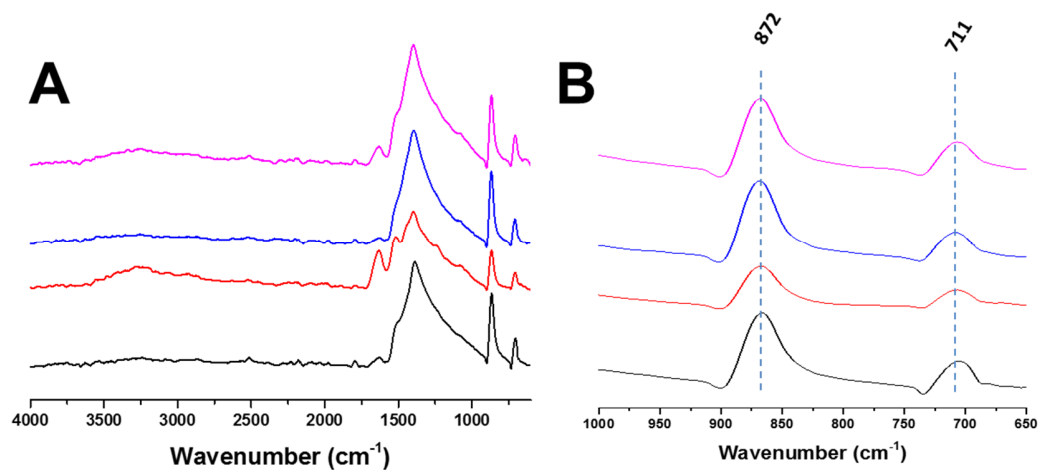


Figure S2. FTIR spectra of egg membranes mineralized in the presence of 0 (black), 2 (red), 5 (blue) and 10 (pink) mM Mg^{2+} ion content and different polymeric additives.

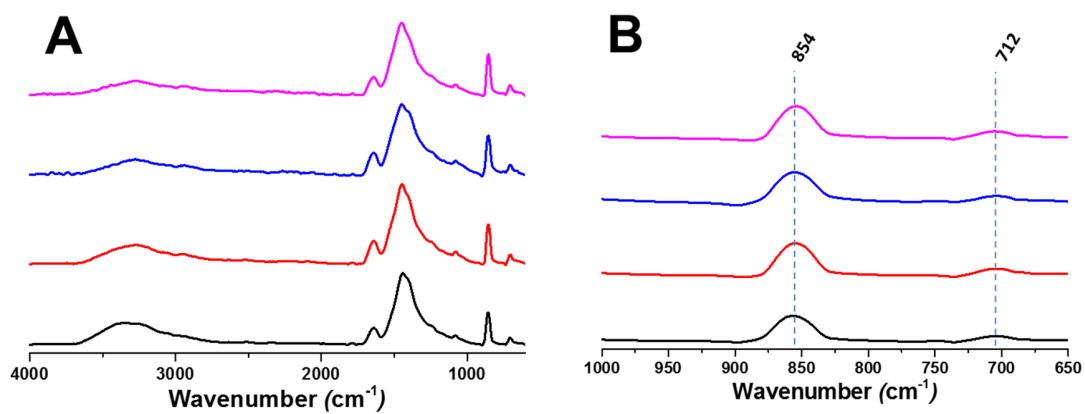
(A) Reference experiment



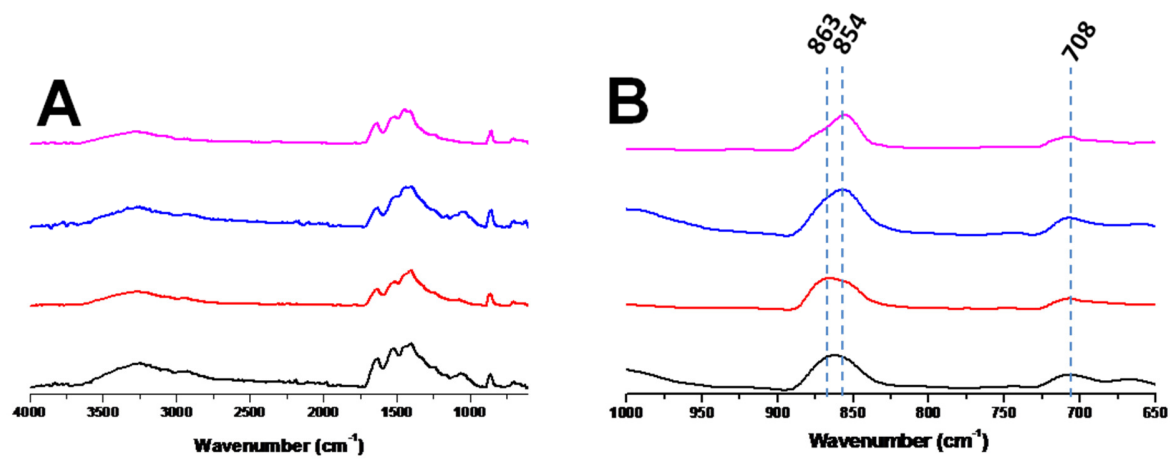
(B) PEG



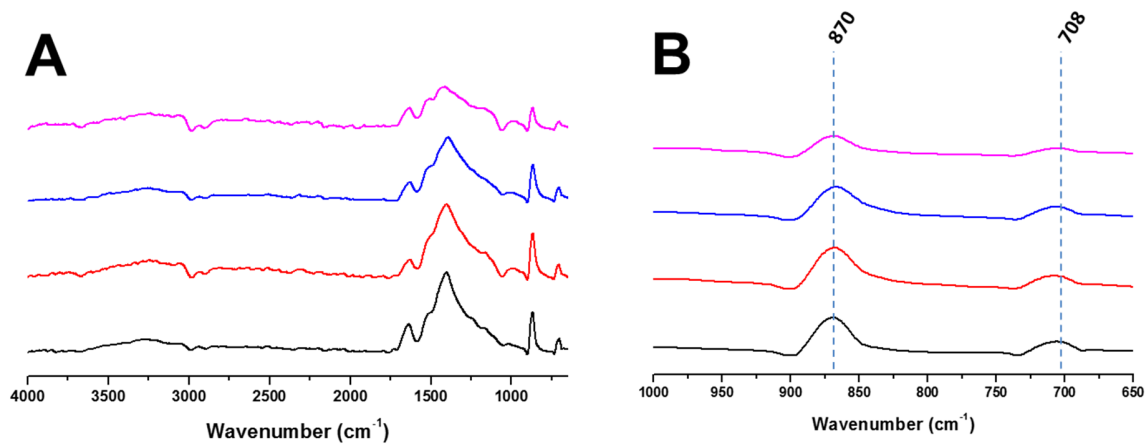
(C) PAA 5000



(D) PAA 35000



(E) PASP



(F) PSS-co-MA

