Goldschmidt 2023 Abstract
https://doi.org/10.7185/gold2023.18912

The effect of pH on coral skeleton formation mechanisms

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We compared the transient precursor phases on the forming surface of fresh corals grown at different pH values: pH 7.2, 7.4, 7.8, and 8.0 [1]. Using PhotoEmission Electron Microscopy [2, 3] at the calcium L-edge we identified the transient metastable precursor phases [4-6] as a function of distance from the surface. We expected to find the most and least metastable precursors at the outermost and innermost layers of the surface, but that is not what we found. One of the intermediate phases penetrates deepest into the skeleton.

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