

## **Characterization of Calcite Spines of Planktonic Foraminifers (Globigerinidae)**

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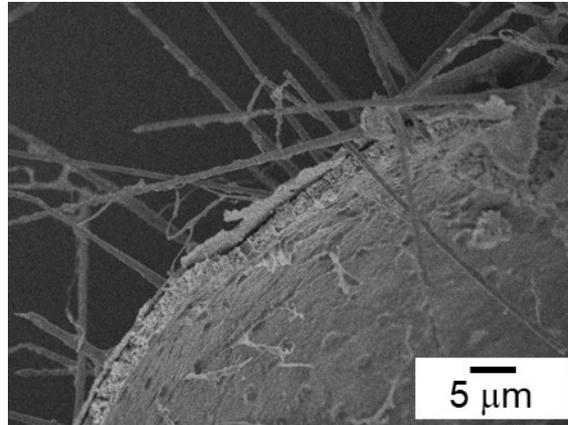


Figure S1. SEM image of the cross section of a test of a planktonic foraminifer.

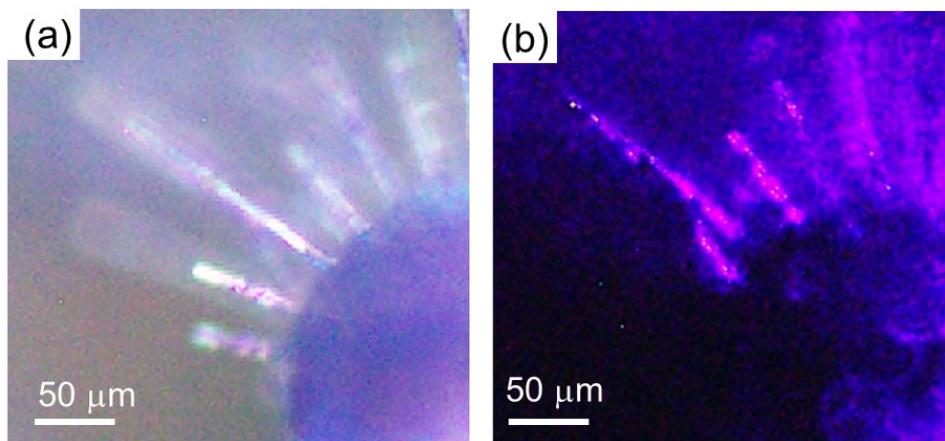


Figure S2. Fluorescence microscope images of spines stained with Calcofluor White Stain (Sigma Aldrich) (a) under natural light and (b) ultraviolet illumination (400 nm). Calcofluor White Stain is non-specific fluorochrome that binds with cellulose and chitin contained cell walls. We confirmed that the spines yielded fluorescence after addition of one drop of Calcofluor White Stain.

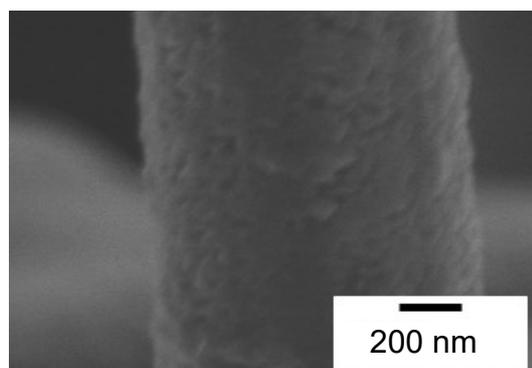


Figure S3. SEM image of a spine after the NaClO treatment for 12 h. The surface organic membrane was removed and the granular structure then appeared after 12 h.

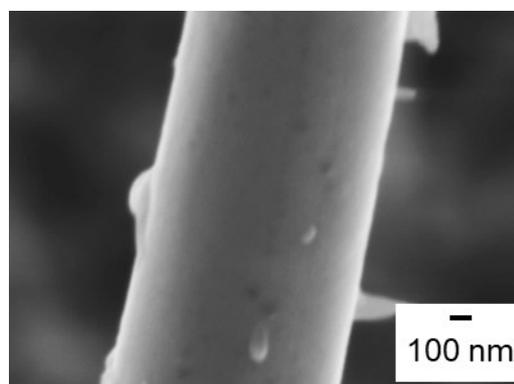


Figure S4. SEM image of a spine without removal of an organic membrane after the immersion in the supersaturated solution.

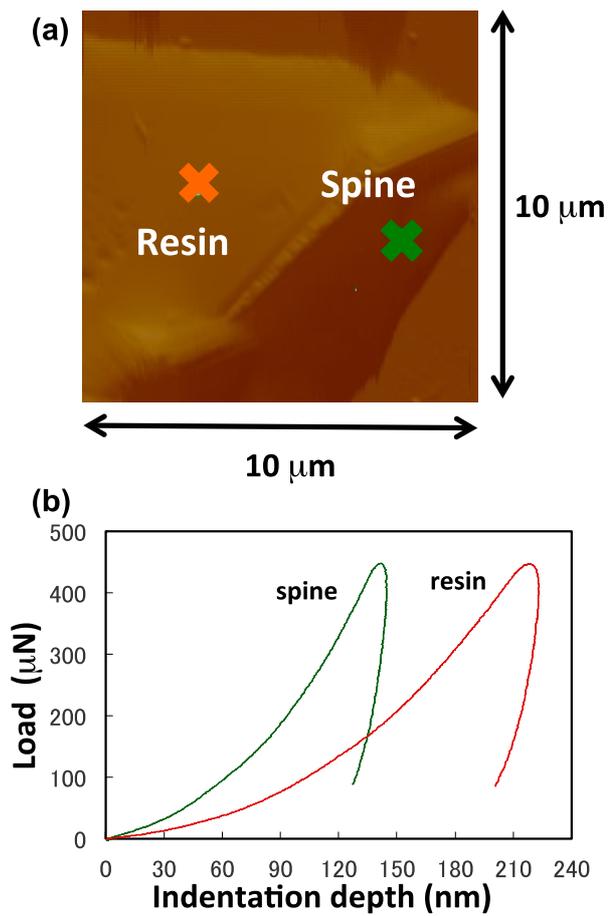


Figure S5. An optical micrograph and typical loading and unloading curves of the indentation test for a spine and resin supporting the sample.