Supplemental File Captions:

Table S1.—Major element geochemistry of the source sediment used in the taphonomy experiments as determined by ICP-OCS shows a primary mineral composition of quartz and feldspar.

Table S2.—Ion chromatography results of major cation constituents show that the geochemistry of water at the site used for the taphonomy experiments is typical of bulk seawater.

Table S3.—Ion chromatography results of major anion constituents show that the geochemistry of water at the site used for the taphonomy experiments is also typical of bulk seawater.

Table S4.—Table of raw data of framboids characterized in carcass-fall experiments.

Table S5.—Table of mean and standard deviation of published framboid populations from specified geochemical environments.

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