

Estimation of the calcification rate of foraminifera -exceptionally fast extending of the shell-

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The process of biomineralization of foraminiferal test is essential for its characteristic morphogenesis and the composition of element and isotope to be taken in is used also as paleo environmental proxy, numerous studies have been approached to reveal the mechanism of shell formation. However, how fast the foraminifera calcification and how much calcium carbonate deposits depends on the species, which is not well understood in most species.

The foraminifera *Spirillina vivipara* does not form a chamber, but elongate a tubular test spirally with their cytoplasmic growth. *Spirillina vivipara* is also known to be rapidly changing generations that can be reproduced in a several days after division of mother cells (Myers, 1936). From our current observations, it was also found that the shell formation is repeatedly carried out in the day, and the elongation rate of the shell is very fast. Therefore, in this study, *Spirillina vivipara* was used to estimate calcification rate. In this presentation, we report on the fastest shell extending rate in foraminifera.

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