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Changes in the size of the benthic foraminiferal chamber under variable pH conditions

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Foraminifera is the major calcium carbonate producer in the ocean (Langer et al., 1992, 1997? Sciebel et al., 2002). Ocean acidification is thought a potential threat to marine life especially calcifiers. The effect of ocean acidification on hyaline foraminifera is an interesting topic for the marine science. Here we try to measure the chamber size and test density (i.e. CT value) of cultured benthic foraminifers by micro X-ray computed tomography (MXCT). Individuals grow under different pH settings. CT values show relatively small fluctuations between experimental settings. Meantime, it is not statistically significant for chamber size variability nor its increase between variable pH settings. The second chamber are smaller than the initial chamber at all. Even the size of chamber increasing with growth from second added chamber, somewhat smaller chamber are added at the beginning of new whole of spiral. When new whole is starting, the older chamber is occupy some part of new chamber even though the outline of the chamber smoothly connected from older one-earlier chamber. This point is different from previous study.