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Title: *Seasonality of Permian brachiopods from Spitsbergen contradicts with low palaeolatitude brachiopods recording cyclothem evaporation*

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Several brachiopods belonging to the same genus *Horridonia* of late Early and early Late Permian age in Spitsbergen (Małkowski 1988) and Poland (Kaźmierczak 1967) have been petrographically and geochemically analysed to verify seasonal variation in stable carbon and oxygen isotope values for palaeoclimatological implications. The majority of brachiopod species have shells that are composed of low-magnesium calcite, which is the most stable skeletal carbonate over geological time, and are therefore less susceptible to diagenetic alteration. Advanced petrography such as cathodoluminescence and scanning electron microscopy has been applied to confirm unaltered composition of the shell material. Comparative analysis of the results gives interesting clues about differences in the record of environmental parameters roughly at the same time and distant places. The specimens of *H. timanica* (Stuckenberga) from Spitsbergen show distinct cyclicity reflective of seasonal pattern, while those of *H. horrida* (Sowerby) from Poland do not, which are related to evaporative cyclothemes (see also Nielsen et al., 2012). These differences are explained by that the former lived at high palaeolatitudes at northern margin of the supercontinent Pangaea where the seawater temperature differences between winter and summer seasons were stronger expressed in the isotopic composition of the skeletal materials. In contrast, the shell growth of *H. horrida* was subjected to strong evaporative influence by climatic variations in the central area of Pangaea. KAŹMIERCZAK, J. 1967. Morphology and palaeoecology of the Productid *Horridonia horrida* (Sowerby) from Zechstein of Poland. *Acta Palaeontologica Polonica*, 12 (2), 239–260. MAŁKOWSKI, K. 1988. Paleoecology of Productacea (Brachiopoda) from the Permian Kapp Starostin Formation, Spitsbergen. *Polish Polar Research*, 9, 3–60. NIELSEN, Jesper K., BŁAŹEJOWSKI, B., GIESZCZ, P. & NIELSEN, Jan K. 2013. Carbon and oxygen isotope records of Permian brachiopods from relatively low and high palaeolatitudes: climatic seasonality and evaporation. In: Gasiewicz, A. & Sowakiewicz, M. (eds), *Palaeozoic Climate Cycles: Their Evolutionary and Sedimentological Impact*. Geological Society, London, Special Publications, 376, <http://dx.doi.org/10.1144/SP376.6>.