

HABILITATION THESIS REVIEWER'S REPORT

Masaryk University

Applicant

Mgr. Tomáš Kumpan, Ph.D.

Habilitation thesis

Time control and reconstruction of paleoenvironmental changes from Paleozoic carbonate record

Reviewer

Jitao Chen, Ph.D.

Reviewer's home unit, institution

Nanjing Institute of Geology and Palaeontology, Chinese Academy of Sciences, Nanjing 210008, CHINA

Dr. Tomas Kumpan's habilitation thesis focuses on time control and reconstruction of paleoenvironmental changes from Paleozoic carbonate record, using combined means of sedimentology, integrative stratigraphy, and geochemistry. The main achievements include advances in Devonian and Carboniferous stratigraphy and element geochemistry in paleoenvironmental reconstruction during the late Paleozoic. Overall this is an excellent compilation and summary of the findings regarding the late Devonian to early Carboniferous transition.

Reviewer's questions for the habilitation thesis defence (number of questions up to the reviewer)

I have only a few questions list below, but they do not affect my judgement on this thesis. Kumpan stated that "The diachronous onset of late Famennian anoxia was also highlighted by Hedhli et al. (2023), who suggested that the Hangenberg Black Shale Event did not represent a true oceanic anoxic event, but rather reflected widespread anoxia developed in numerous tectonically isolated Black Sea-type basins formed during advancing orogeneses, further supporting a regressive model." Why and how does this support a regressive model? For the columnar section in the Fig. 11D, do you get conodonts *ckl* from the laminates? How do you correlate the laminate to "HBSE"? p43: "proliferation of microbial and authigenic facies characteristic of post-extinction "anachronistic" environments"—Laminites occur in the *ckl* interval which is the main extinction phase. Bu the statement seems that the laminites occur in the aftermath of extinction as anachronistic facies.

Conclusion

The habilitation thesis entitled ["Time control and reconstruction of paleoenvironmental changes from Paleozoic carbonate record"] by [Tomáš Kumpan] **fulfils** requirements expected of a habilitation thesis in the field of [Geology].

Date: September 18, 2026

Signature: