

Interactive comment on “Speleothem oxygen record – thermal or moisture changes proxy? A case study of multiproxy record from MIS 5/MIS 6 age speleothems from Demänová Cave System” by Jacek Pawlak

Anonymous Referee #2

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The manuscript submitted to CP by Jacek Pawlak discusses an interesting multi-proxy speleothem record from Slovakia that spans MIS6/MIS6.

The new paleoclimate data are very interesting, however, the manuscript is poorly written. The manuscript needs some deep re-structuring/re-writing. The English language style might benefit from a language editor.

The manuscript has a high potential for CP after being revised thoroughly.

My comments are list below:

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- Abstract: 1- something is missing before you start presenting the JS9 stalagmite. Please present the 'problematic', the questions that you're trying to answer, before talking about JS9. 2- please clarify what you mean by "transitional and continental climate" 3- why do you have to mention "in opposition to the records from the Alps and the northern Tatra mountains" in the abstract? if it is so important, then please explain what you concluded about this difference with the Alps and Tatra..

- Introduction: 4- replace 'most suitable' with "most commonly used" 5- line 30: references are missing after "nordic seas" and "Atlantic ocean". 6- line 40: please explain what do you mean by stating that the speleothem 18O can be influenced by PCP? and add references to the new statement as well. As far as I know, PCP influences mostly 13C and not 18O, but I might be wrong. Please check... 7- between line 55 and 60: something is missing before you write "we present ca. 60...". Please state why a new speleothem record is needed before you present it. 8- before line 85: "several generations of speleothems" doesn't seem like a correct expression here.

- Methods: 9- write "in terms of" instead of "in a term of" 10- line 95: typo "oof" 11- the steps described between line 95 and 100 require some re-writing 12- line 105: "calculated by taking into account" instead of "with taking in the account" 13- before line 110: "taken into account" instead of "take" 14- line 110: "modified" instead of "changed" 15- after line 115: "minimize" instead of "minimalize"

-Results: 16- line 145: "described by Frisia (2015)" instead of "in the work of" 17- same as before (line 150). 18- "the" used procedure 19- line 160: Helltrom's procedure. a reference is needed here 20- "relatively" slow instead of relative 21- between lines 170 and 175, replace "since" with "from" whenever you refer to time periods. 22- line 185: write "similar" instead of "like each other" 23- replace "at that time too" with "during the same period". 24- general comment: refer to a figure whenever you need to mention information related to specific time periods.

- Discussion: 25- general comment: the main results of this paper are not highlighted

C2

in a sufficient way. The main conclusions and findings need to be well presented. 26- replace "exemplary" with "for example" throughout the manuscript 27- replace "in opposition" with "contrariwise or on the opposite" throughout the manuscript 28- replace "the JS9 stalagmite" with "the stalagmite JS9" throughout the manuscript 29- replace "dryer" with "drier" throughout the manuscript

- Conclusion: 30- I would rather write the conclusion in the form of a paragraph instead of bullet points.

Interactive comment on Clim. Past Discuss., <https://doi.org/10.5194/cp-2020-125>, 2020.