

We would like to thank Petr Kuneš and Biogeosciences for accepting our manuscript for publication as well as all reviewers for their time and contributions which allowed us to improve the quality of the manuscript. Corrections suggested by reviewer report #1 have now been made:

- In the manuscript the notation of CO₂ has been corrected (subscript added)
- All figures have been reworked to ensure bigger fonts and enlargement of panels to make the maps/boxplots more legible. We hope that the quality of the figures is now of sufficient quality.

In addition, a small number of typos have been corrected in the manuscript and the supplementary information:

Line 78: *Haas et al (2002)* has been corrected to *Haas et al (2022)*

Line 279: *LGM 190 ppm* has been corrected to *LGM 185 ppm*

Supplement: *LGM 190 ppm* has been corrected to *LGM 185 ppm*