

Dear Editor, dear Luis!

We thank you for handling our manuscript and for going through the revised version carefully. We implemented your revisions as indicated below in blue script, mostly by following your suggestions.

Please let us know if you feel any more changes are needed!

Greetings from

Heike (Wex)

Line 27: Replace "...were main sources..." with "...were the main sources..." [Done](#).

Lines 36: Replace "...atmosphere likely will enhance..." with "...atmosphere will likely enhance..." [Done](#).

Line 41: Replace "mix-phased" with "mixed-phase" [Done](#).

Line 44: Replace "mix-phased clouds" with "mixed-phase clouds" [Done](#).

Line 48: Replace "mixed-phase clouds" with "MPCs" [Done](#).

Line 60 and along the text: ...(O'Sullivan et al., 2018). Additionally, certain.... (Please do not begin a sentence with "And") [Done](#).

Line 75: Replace "does most likely not contribute" with "does not likely contribute" [This suggested alternative version seems to change the meaning slightly, so we prefer to leave it as is. In case there are grammatically rooted issues here, we are sure the language check will find it.](#)

Line 90: Replace "do not contribute INP that are" with "do not contribute to INPs that are" [Done](#).

Line 100: Replace "...years, glacial dust" with "...years. Therefore, glacial dust" [Done](#).

Line 105: Please define "MOSAIC" [Done](#).

Line 120: Replace "Villum Research Station (VRS)" with "VRS" [Done](#).

Line 202: Figures need to be called chronologically and Fig. S4 is called before Figs. S1, S2 and S3. Also, Figs. S1, S2 and S3 are not mentioned in the main text.

[The sequence in the SI was changed and respective references were added to the main text. \(Track changes was not used in the SI, as this, connected with the reordering, would have made the SI unnecessarily messy.\) Nevertheless, although now each item of the SI is explicitly mentioned in the main text, in our understanding this is not a necessity. But this is of no concern to this study, now.](#)

[Additionally, in the main text and the SI \(supplemental information\), Kevin Sze was removed as corresponding author, as he left TROPOS \(actually, science altogether\) and his e-mail-address will not be operational much longer. This was already clarified online with the agreement from Kevin Sze with Copernicus-handling-staff. Instead, Frank Stratmann, the PI of the main project related to this study, was added.](#)

Line 216: Replace "air respectively" with "air, respectively" [Done](#).

Lines 357-358: The following text is unclear "As discussed above, these two values for the slope originate from decades old, but still used parametrizations by"

We assume the confusion came from our use of "these two values" in this sentence, as "these" referred to values given two sentences earlier. We made the following changes, hoping that it is clear now:

"As discussed above, the two values of -0.6 and -0.3 for the slope ..."

Lines 381-382: Replace "for more see" with "for more details see" [Done](#).

Lines 429-430: Replace "The same 5-day back-trajectories were used further: To quantitatively investigate the difference of INP sources between April 2019 and 2020, the amount of time of trajectories spent above different surface types at altitudes below 250 m was evaluated..." with "The same 5-day back-trajectories were used further to quantitatively investigate the difference of INP sources between April 2019 and 2020, and the amount of time of trajectories spent above different surface types at altitudes below 250 m. This was evaluated..."

We altered your suggested change slightly, it now is:

"The same 5-day back-trajectories were used further to quantitatively investigate the difference of INP sources between April 2019 and 2020. For that, the amount of time trajectories spent above different surface types at altitudes below 250 m was evaluated for each sample ..."

Lines 476-477: Replace "mixed-phase clouds" with "MPCs"

As MPCs are not the topic of this study, and as MPCs (and thus the abbreviation) were only mentioned and used in the introduction, we prefer to keep this as is, for readers who only check out our "Summary and conclusions" chapter, without reading the whole text.