

Response to the referee #1 (egusphere-2023-744)

Dear Lei Geng,

We thank you for your positive review of the revised version. We agree that a more accurate calibration of $\Delta^{17}\text{O}(\text{NO}_2)$ measurements is desirable. As you know, this work is currently underway and we have no further elements to report at the moment.

The values of $\Delta^{17}\text{O}(\text{NO}_2)$ observed in Chamonix are in good agreement with previous observations in Grenoble and in both studies, the $\Delta^{17}\text{O}(\text{NO}_2)$ maximum and minimum values are fully consistent with the $\Delta^{17}\text{O}$ theoretical framework and measured $\Delta^{17}\text{O}(\text{O}_3)$ values for the cases when NO conversion to NO_2 is expected to be overwhelmingly dominated by ozone. Therefore, we think that, though not very accurate, the $\Delta^{17}\text{O}(\text{NO}_2)$ calibration is not a significant issue here. Nonetheless, we cannot totally rule out the possibility that future measurements of nitrite $\Delta^{17}\text{O}$ references might differ from our actual calibration data. If this should happen, we will publish a correction to the paper with updated values and possible implications.