# Response to the editor

Dear Markus Ammann,

Thank you for accepting the paper for publication. As you recommended, we have added to the main text an awareness of the current calibration of $\Delta^{17}O(NO_2)$ measurements as (Section 3.2, line 497-507 in the revised manuscript):

"It is worth pointing out that a more accurate calibration of $\Delta^{17}O(NO_2)$ measurements is desirable. There is currently no internationally accepted nitrite salt standard with a positive $\Delta^{17}O$. Nevertheless, we are rather confident in our present calibration methodology. Indeed, the $\Delta^{17}O(NO_2)$ values measured in Chamonix closely align with previous observations in Grenoble. In both studies, the maximum (daytime) and minimum (nighttime) $\Delta^{17}O(NO_2)$ measurements conform to the expected values derived from the $\Delta^{17}O$ theoretical framework (based on well-established $NO_x$ chemistry and $\Delta^{17}O(O_3)$ measurements) when $O_3$ overwhelmingly dominates the NO to $NO_2$ conversion. Therefore, at this stage, we do not consider that $\Delta^{17}O(NO_2)$ calibration is an issue for this study. However, as we cannot completely rule out a small bias in our calibration, we have manufactured enriched nitrite salts and are presently working on refined new nitrite salt standards. Note that the rapid exchange of nitrite O isotopes in aqueous solution (Casciotti et al., 2007) is a challenge for inter-laboratory data comparisons. If new measurements of nitrite $\Delta^{17}O$ references are found to differ from our current calibration, we plan to publish a correction to the paper with updated values and any potential implications."

Best regards

Sarah Albertin