

Interactive comment on “High-precision isotope measurements of $H_2^{16}O$, $H_2^{17}O$, $H_2^{18}O$, and the -anomaly of water vapor in the southern lowermost stratosphere” by P. Franz and T. Röckmann

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The major point of the anonymous referee is the lack of supportive data. Indeed, this has also caused us trouble in the interpretation of our data. We would certainly like additional high resolution information about meteorological conditions, other tracers as well as modelling support. Since the C-17 is not a scientific platform, such support is unfortunately not available. Therefore, also for us, it is not possible to interpret the data in as much detail as we would like. Nevertheless, since these are the first in-situ combined 17O and 18O data from this region that allow the investigation of oxygen

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isotope anomalies in water vapor, we want to communicate the results to the scientific community. Additional data may in the future help to solve the open questions asked in our paper.

Despite the lack of additional data, there are no obvious outliers in our data set; also there are no extreme changes in altitude or temperature in the data written down by the pilot. Therefore our interpretation seems to be valid for the whole dataset, and it is not necessary to reject data points as suggested by the referee.

In view of the data limitations, we feel that there is not much additional value to be gained by including the full range of positions, temperatures etc in table 1, as asked by the referee. However, as mentioned in the caption of table 1, the full data is available in Franz (2005), which is available on the internet.

Interactive comment on Atmos. Chem. Phys. Discuss., 5, 5373, 2005.

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