

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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We thank for the supportive comment by C. Webster. We have substantially shortened and revised the review of isotope measurements with optical methods, which may have sounded too negative in our original paper. We focus in our paper on the 17O-anomaly, and for those measurements indeed the analytical precision of the optical methods at present is not sufficient to address scientific questions. However, optical methods clearly have excellent temporal and spatial resolution, which can't be achieved by our cryogenic method. For d18O and particularly dD, for which the isotopic changes are

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much stronger, optical measurements can provide data in much higher detail and thus address many scientific questions, as shown in the paper by Webster and Heymsfield.

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

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