

## ***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***

**P. Franz and T. Röckmann**

Received and published: 19 October 2005

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  $^{17}O$ -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  $d^{18}O$  and particularly  $dD$ , for which the isotopic changes are

Full Screen / Esc

Print Version

Interactive Discussion

Discussion Paper

EGU

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.

**ACPD**

5, S3351–S3352, 2005

---

Interactive  
Comment

[Full Screen / Esc](#)

[Print Version](#)

[Interactive Discussion](#)

[Discussion Paper](#)