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Title: The Zugspitze radiative closure experiment for quantifying water vapor absorption over the terrestrial and solar infrared. Part III: Quantification of the near-infrared water vapor continuum under atmospheric conditions
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General comments:

In this work, the authors measured the absorption due to water vapor contribution from solar FTIR absorption spectra recorded at Mt Zugspitze. This was done using the radiative closure method.
The paper is well-written and the level of details given is generally sufficient taking into account the fact that two companion papers describing the setup and the calibration procedure would be published in the same Special Issue. The site of Mt Zugspitze has the advantage of reduced aerosol optical density compared to typical lowland mid-latitude sites minimizing the impact of aerosols on the continuum determination. Great care is taken to consider all the possible sources of uncertainty which is important for the method used here. This leads to large uncertainties bars in the windows where the continuum is weak. In Supplementary material the authors give mean water vapor continuum absorption coefficients with negative values which have no physical meaning. Moreover data are given with large uncertainty in the center of the windows so that they are in agreement with all the literature data within the error bars bringing no additional information for those spectral regions. They also weaken the other data obtained in the bands and at the edges of the windows with lower uncertainty. To me it will have more sense to remove large uncertainty data in the center of the 2.1 µm, 1.6 µm windows before publication.
As mentioned in the companion paper Part 1: *Very dry atmospheric conditions are a pre-requisite for closure studies of this kind due to the otherwise saturated spectral regions*. This has for consequences that in these conditions of dry air, the foreign-continuum represents most of the continuum absorption (more than 70% if the MT_CKD self to foreign ratio is assumed according to the authors). This can be viewed as a kind of “limitation” of the method but it is also important as there is a real lack of observational constraints for the foreign-continuum.
To conclude, this paper presents state-of the art atmospheric measurements of the continuum which bring interesting information in the near infrared bands and at the edges of the windows mostly for the foreign-continuum for which experimental constraint are clearly missing. For these reasons this paper deserves to be published in ACP after large uncertainty data in the center of the 2.1 µm and 1.6 µm windows are removed.

Specific comments:

P1, L32: Burch (1982) and Burch and Alt (1984) used a grating spectrometer for their experiments and not a FTIR spectrometer.

The following references are missing for continuum measured:
By CRDS:

- Mondelain D. et al., J. Quant. Spectrosc. Radiat. Transfer, 130, 381 (2013).
- Cormier, J. G. et al., J. Chem. Phys., 122, 114309, (2005)
- Cormier J. G., et al., J. Chem. Phys. 116,1030 (2002)

By OF-CEAS:

- Ventrillard et al. J. Chem. Phys. 143, 134304 (2015)

By calorimetric-interferometry :

- Fulghum, S. F., and M. M. Tilleman, J. Opt. Soc. Am. B Opt. Phys., 8, 2401(1991)

P1, L38: The sentence is too general. Cavity enhanced techniques like CRDS and OF-CEAS as well as CI are able to measure continuum absorption in the windows at room temperature (see references above) and even at lower temperature (see Cormier 2005).

P2, L1-3: The sentences "To date…non-straightforward" are too definitive. Temperature dependences of the self-continuum cross-section have been investigated in different spectral windows (see for example Cormier 2005, Mondelain 2014, Ptashnik 2011, Ventrillard 2015…). In the 2.1 µm window, for example, the temperature dependence measured at high temperatures by the CAVIAR consortium is similar to that measured at lower temperature by Ventrillard et al. in different part of the window. For sure there is a *real* lack of observational constraints for the foreign-continuum.

P2, L4-5: To me it is much more difficult to characterize the continuum from atmospheric spectra than from laboratory spectra recorded in well-known conditions of temperature with sufficiently sensitive and stable techniques. In atmospheric conditions additional uncertainties occur due to water vapor profile, temperature profile, aerosols uncertainties and it is more difficult to separate self and foreign continuum.

P2, L23: Which version of the HITRAN database is used for the line-by-line calculations? Is the line profile used is a Voigt profile truncated at +/- 25 cm^{-1} from the line center with the plinth subtracted? If yes the authors have to mention it.

P7, L32: How exactly calculations are done in the case of Bicknell et al. (2006) as these measurements did not allow dissociating the self from foreign continuum.

P7, L8: Assuming that the partitioning in self and foreign continuum given by the MT_CKD model is a quite strong hypothesis as the very few laboratory studies of the foreign-continuum (Ptashnik PTRSA 2012 and Mondelain PCCP 2015) seem to show that the foreign continuum cross-sections are largely underestimated by MT_CKD in the windows.

P7, L38: The very good agreement with CRDS-based measurements of Mondelain et al. (2015) is essentially a good agreement with the foreign-value measured in this paper due to the dominating contribution of the foreign-continuum in the atmospheric conditions encountered at Zugspitze. This is an important point as in the Mondelain et al study the measured foreign-cross section is 4.5 times larger than the one given in MT_CKD 2.5. The fact that in the 4100 to 4200 cm^{-1} spectral range the MT_CKD model underestimate the continuum goes in the same direction as well as the Ptashnik 2012 paper. This point should be underlined by the authors.

Fig 1: Some literature data at room temperature are not plotted on this figure (Ventrillard 2015, Mondelain 2014). It will be good to incorporate them in the figure.

Technical corrections:

P2, L25: *closure experiment* ***und*** *the related uncertainties*: und->and.