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Interactive comment on "OH level populations and accuracies of Einstein-A coefficients from hundreds of measured lines" *by* Stefan Noll et al.

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The paper presents a very detailed analysis of OH lines intensities derived from a large set of archive spectra collected with the UVES spectrograph of the ESO-VLT telescope. It clearly shows that the molecular parameters (transition probabilities) available in the literature yield different results, none of them fully compatible with the data. The authors select the source that provides the better match and propose empirical corrections to achieve a better fit.

I am somewhat worried about the flux calibration of lines that fall in regions with significant telluric absorption, such as the (6-2)P2(12) doublet shown in Figure 9. The intrinsic widths of the airglow emission lines and of the telluric absorpion fatures could

be narrower than instrumental resolution. In such a case the correction applied is strongly dependent on model parameters such as the velocity of the airglow clouds and the assumed spectral profile of the telluric absorption. I strongly suggest to perform a sanity check, e.g. by comparing the discrepancies of Lambda-doublets (Figure 9) with the telluric absorption in the spectral region where the lines are measured.

Finally, I note that problems arising from the comparison of lines from the same upper level and with different delta-v, were also reported in Oliva et 2013 (2013A&A,..555A..78O). You may add a reference to this article.

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Discussion paper