Atmos. Meas. Tech. Discuss., 6, C3296–C3297, 2013
www.atmos-meas-tech-discuss.net/6/C3296/2013/

Atmospheric Measurement Techniques Discussions

Interactive comment on "Near-infrared remote sensing of Los Angeles trace gas distributions from a mountaintop site" *by* D. Fu et al.

Anonymous Referee #1

Received and published: 9 December 2013

The paper describes a novel method to measure near-IR absorbing trace gases (XCO2, XCH4, XCO) from a mountain top site using (a) a home-built Fourier Transform Spectrometer in a (b) to date not tested observation geometry (i.e. using ground reflected skylight from dedicated objects). While the instrument and the employed method to infer the targeted trace gas concentrations are rather robust and are carefully described, which is a clear strength of the study, readers may wonder why not more measurements including some validation exercises are provided in the manuscript. Providing the latter could be rather useful for the readership to assess the high quality of the work and to emphasize better the novelty of the study.

Minor comments:

In the manuscript, I found

(a) a couple of typos (b) at some place an unmotivated and disturbing changes of terms (i.e. change from simple presence to simple past, or future and vs) for example in 'section 4.4' ('will be shown' instead of 'are'), or in the section 'conclusions', (c) as well as incorrect units i.e. units which do not fit to the considered physical quantity such as for example in section 2.2.2 'an active area of 2 mm).

So a carful proof-reading of the manuscript appears necessary.

Interactive comment on Atmos. Meas. Tech. Discuss., 6, 8807, 2013.