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11, C5448-C5449, 2011

Interactive Comment

Interactive comment on "Atmospheric ammonia measurements in Houston, TX using an external-cavity quantum cascade laser-based sensor" by L. Gong et al.

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This is a well written paper that offers a good mix of measurements and analysis. The authors consistently cited recent and important work in the area, and have introduced a new measurement system for ammonia. I do appreciate that the authors considered and addressed my earlier comments in this version. I believe they have a better paper as a result.

I have only a few minor comments/questions at this point.

1. P. 16340, lines 19-21: This sentence is awkward as written. It should be rewritten, perhaps as two sentences? To be quantitative, the authors may want to reference a C5448

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95% (exp[-3])recovery from the peak signal, or some other metric of their choosing.

- 2. P. 16340, lines 22-27: Where does the Allan variance plot flatten out? Does it go to 1 hour (3600 s) or further before flattening? This relates to the other reviewer's question. If the detection limit for 5 minute data was 0.72 ppb, what averaging time was required to get the 0.1-0.2 ppb measurements presented in the paper? Were you justified in averaging for that long a time period based on the Allan variance plot?
- 3. I do like Figure 6 much better with the outliers removed and different colors! Thank you.

Interactive comment on Atmos. Chem. Phys. Discuss., 11, 16335, 2011.

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