

Associate Editor Decision: Publish subject to technical corrections (22 Apr 2020) by [Troy Thornberry](#)

Comments to the Author:

Dear Dr. Joly,

Thank you for your efforts in addressing my final comments on your manuscript, I am pleased to accept it for publication in AMT, subject to minor technical corrections.

Troy Thornberry

AMT Associate Editor

Non-public comments to the Author:

Dr. Joly,

I am still somewhat confused about the description of the values in Table 1 as "sensitivity".

Instrumental sensitivity describes the change in instrument response to a change in analyte, which is why it seems that the mixing ratios listed in the table appear to be detection limits. This makes sense in terms of the decreasing values, which means improved performance, over time.

Also, as an absorption instrument, AMULSE inherently measures concentration (Beer-Lambert), so mixing ratio further depends on temperature and pressure (both directly and spectroscopically), and measurement performance should be described in terms of measurement conditions and measurement period--are these numbers for the 24 Hz measurement, or a 1 second average?

Regards,

Troy

Here is my response to your remarks:

I wrote sensitivity because I meant it was the smallest variations I could observe from the continuous background. For me the detection limit is the smallest concentration that the instrument can measure. Then if you think it's a detection limit, there's no problem for me to change it.

I agree that I should have indicated the sampling time, it's a standard deviation measured over 1 second. I indicated it in the table legend.