

Atmos. Meas. Tech. Discuss., referee comment RC1
<https://doi.org/10.5194/amt-2021-355-RC1>, 2021
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Comment on amt-2021-355

Anonymous Referee #1

Referee comment on "Formaldehyde and glyoxal measurement deploying a selected ion flow tube mass spectrometer (SIFT-MS)" by Antonia G. Zogka et al., Atmos. Meas. Tech. Discuss., <https://doi.org/10.5194/amt-2021-355-RC1>, 2021

The manuscript "Formaldehyde and Glyoxal: Measurement Deploying a Selected Ion Flow Tube Mass Spectrometer (SIFT-MS)" presents the performance of SIFT-MS technology for the monitoring in real-time of formaldehyde and glyoxal in air, under controlled conditions. This work focuses on two pollutants of major interest for which accurate measurement in real time remains a challenge. The authors propose a method of analysis of these compounds in the air by SIFT-MS and expose its performances. This study includes avenues for improving analytical performance and comparisons with existing methods (PTR-MS). The work is rigorous, complete and well conducted.

For these reasons, I recommend acceptance of this article for publication in the journal "Atmospheric Measurement Techniques".

In my opinion, only minor revisions are needed to improve the readability of this manuscript.

Some suggestions:

- There are still a few typos in the manuscript that deserve a re-reading. For instance: spaces sometimes missing, double spaces, missing dashes (SIFT-MS line 468)...
- Table 4: there is a reference "b" but the text is missing
- In general, there is a lot of text in the legends of the figures and tables which makes them difficult to read, in particular figures 4 and 5. Some information could appear more clearly directly on the figure. For instance, in figure 5, SC and CC legends should appear clearly on the figure without reading the text (beside each curve, for example).
- The numerous abbreviations do not always allow a fluid reading of the manuscript.