Comment on amt-2022-75
Maria Dolores Andrés Hernández (Referee)

Referee comment on "Performance comparison between electrochemical and semiconductors sensors for the monitoring of O3" by Christophe Claveau et al., Atmos. Meas. Tech. Discuss., https://doi.org/10.5194/amt-2022-75-RC2, 2022

The manuscript by Claveau et al. presents a series of measurements of the voltage response of electrochemical and metal oxide low cost portable sensors which can be of interest for the AMT community.

The analysis of data is however quite descriptive, erratic and contradictory (e.g. linear responses with quadratic regressions). In addition, it is difficult to identify any new aspects revealed by those data respect to the references given. As a consequence, I strongly suggest the rejection of this manuscript for publication in its current form.

Overall, the manuscript would clearly benefit from:

- a better description of the methodology which also includes more details about the principle of the sensors used,
- a deeper statistical analysis and quantitatively interpretation of the data sets and the effect of short-term calibrations of the sensors. The discussion of the repeatedly mentioned NO₂ cross sensitivity is also missing,
- the improvement of the figure legends and figure captions to make the figures self-explanatory,
- the description and explanation of the new findings of the paper and potential recommendations, both in the conclusions and in the abstract.
- a revision of the usage of the English language, which makes difficult the understanding of some parts of the text.

I recommend the authors to thoroughly revise the current text and analysis and to submit a new in-depth modified manuscript.