

Atmos. Meas. Tech. Discuss., referee comment RC2
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Comment on amt-2021-217

Anonymous Referee #2

Referee comment on "Silicone tube humidity generator" by Robert F. Berg et al., Atmos. Meas. Tech. Discuss., <https://doi.org/10.5194/amt-2021-217-RC2>, 2021

General Comments;

Overall, this is a useful piece of work, which makes humidity generation accessible with less capital investment. The uncertainty of the resulting reference gases are possibly sufficient for applications such as atmospheric research, but may struggle to determine acceptance criteria for tighter specifications.

Specific Comments;

Line 26 states that "A hygrometer can be calibrated by comparing it to one that either is a primary standard..". In my view, a hygrometer is never a primary standard, as it relies on reference humidity values from a generator for its traceability.

Page 2, lines 30 to 44 provide an overview of other humidity generation methods. Typical uncertainties and ranges should be included for completeness.

Lines 122 to 124: I'm not entirely clear on this approach, as the MFCs appear to have been calibrated over different ranges. Unless the same standard is used over the full range, the error is linear throughout and stability and repeatability are not an issue, it would be difficult to cancel out any errors.

