Geoscientific
Model Development
Discussions

Interactive comment on "PyCHAM (v1.3.4): a Python box model for simulating aerosol chambers" *by* Simon Patrick O'Meara et al.

Anonymous Referee #3

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This paper describes the PyChAM model for simulating aerosol chambers. In my opinion, the paper is written well on the whole and the model appears to have been constructed and evaluated rigorously. The results presented appear highly reproducible given the open access nature of the model and the careful description of the source of data for all of the model comparisons.

I have some very minor comments to aid understanding:

1. Line 48: text in brackets should be clearer 2. Line 55-56: can the authors expand on how this fitting procedure is carried out? is there enough information for the user to be able to do this? 3. Line 72: define sufficient. 4. Line 74: what do the authors mean by injected again later? 5. Line 79: give value of accommodation coefficient 6. Figure 1: line up the x-axes to aid interpretation. 7. Line 101 doesn't appear to follow line 100??

8. Line 103: I guess photolysis rates are only constant for indoor lights? 9. Line 129: define process tendencies 10. Line 185: define what relatively low means 11. line 286: is the word 'constant' missing? 12. Line 313 - typo - predominantly?

Interactive comment on Geosci. Model Dev. Discuss., https://doi.org/10.5194/gmd-2020-234, 2020.