

***Interactive comment on “Observations of speciated isoprene nitrates in Beijing: implications for isoprene chemistry” by Claire E. Reeves et al.***

**Anonymous Referee #1**

Received and published: 9 February 2020

This data set is likely interesting. However, this paper is long, data rich and is not succinct in its analysis. It is very hard to tell which conclusions are unambiguously supported by the observations and which depend on assumptions about transmission and sensitivity. It is not currently accessible to a general reader of ACP. I recommend it be rejected.

Only the most determined reader will be able to wade through this and find the important information and three years from now, no one will be able to identify key ideas that should stand the test of time from ideas that are momentary arguments about different rates constants in a version of MCM and W2018. Today, no one not deeply steeped in

C1

the isoprene chemistry will be able to read it and recognize the ideas being tested. It would greatly benefit from editing in collaboration with someone who is not as engaged in the details. I recommend it be rewritten with many fewer figures. The figures that remain should be chosen to demonstrate how the observations test competing ideas for the behavior of these nitrates.

In addition, the sections on MCM should be more clearly motivated—are there choices MCM has made that are in conflict with W2018. If so is there a logic to them or is MCM just not updated to be consistent with W2018 yet?

---

Interactive comment on Atmos. Chem. Phys. Discuss., <https://doi.org/10.5194/acp-2019-964>, 2020.

C2