Review of Fritsch et al., ACPD, 2019

The authors have taken the referees' comments into account and restructured the presentation of the methodology, which improved the paper. I still have a few requests (listed below). They mainly concern the analytical formulas and their consistency with the figures. After those points have been clarified, the paper should be suitable for publication.

- I noticed that Eq.7 (formerly Eq. 3) has been changed between the two versions. It is important that the (co-)authors double check for typos since varying the parameters of that equation is the crux of the paper. I would rather get (-b/c)*tau for the last term under the square root (with ½ removed). Moreover, there is also a sign ambiguity in the current Eq. 7. The authors should explain which sign is picked under which conditions. (I think that the minus is preferred in most cases, if not all).
- The signs of the coefficients shown in Fig. 12 seem inconsistent with the sign convention in Eq. (6), given the shape of the curve in Fig.3 . In particular, I would expect b to be always positive (since the linear trend of SF6 corresponds to an increase of SF6 with increasing time). Please check. Furthermore, Eq. (7) shows that the relevant parameter for the retrieved age is the ratio b/c, and not the specific value of either b or c. The authors might consider plotting the ratio in Fig. 12 as well.
- Again, the authors might consider showing Fig. 14 using b/c.