We thank the referees for their additional valuable comments clarifying the wording. Our responses are below each comment in blue highlighted text.

Changes in language should still be made to address Referees' comments regarding reference of C5H10O3 associated with C5-alkene triols structures and extrapolation to ambient conditions:

1. Change abstract lines 52-57 to read: "We thus confirm, using controlled laboratory studies, recent analyses of ambient SOA measurements showing that IEPOX SOA is of very low volatility and commonly measured IEPOX SOA tracers such as C5H12O4 and C5H10O3, presumably 2-methyltetrols and C5-alkene triols or 3-MeTHF-3,4-diols, result predominantly from thermal decomposition in FIGAERO-CIMS. We infer that other measurement techniques using thermal desorption or prolonged heating for analysis of SOA components may also lead to reported 2-methyltetrols and C5-alkene triols structures."

Updated as requested.

2. Lines 507-508: Authors have not proven/provided quantitative measurement showing the majority of IEPOX SOA in the experiments and atmosphere are in fact organosulfates/polyol oligomers, though it is suggested and not "confirmed" from modeling. Reword to, "Fundamental chamber studies of IEPOX reactive uptake to aqueous acidic seed were performed and we find that the resulting molecular composition and volatility of the formed SOA suggest that the vast majority of IEPOX SOA in the atmosphere is of very low volatility, likely in the form of organosulfates and polyol oligomers."

Updated as requested.

3. Lines 511-514: This is applicable to FIGAERO-CIMS only. Rewrite as, "We further confirm that the observed properties of C5H10O3 are not consistent with the structure of C5-alkene triols and/or 3-MeTHF-3,4-diols, and thus these structures cannot be components of IEPOX SOA as measured by FIGAERO-CIMS but are likely artifacts of thermal decomposition during analytical workup."

Many techniques measure the composition of $C_5H_{10}O_3$, and while the structure may differ between these techniques, we have shown via numerous methods throughout the paper (structure-activity vapor pressure calculations, calibrations with authentic standards, and modeling with a simple box model, COSMOtherm, and thermal desorption model) that regardless of structure, it is physically inconsistent for that composition to remain in the condensed-phase. We have added the following sentence after the sentence in question to address this comment:

While our results are specific to the FIGAERO, we predict that the issue is more general, affecting other methods as indicated for example in Cui et al. (2018).

4. Lines 514-517: Suggest further clarification by changing to, "…whether all instruments (those

reporting C5H12O4, C5H10O3, 2-methyltetrols, C5-alkene triols and/or 3-MeTHF-3,4-diols) are in fact measuring the same species…”

Updated as requested.