

## Response to 2<sup>nd</sup> review by Reviewer #3

Fleming et al. have carefully addressed the concerns of reviewers. I commend the authors on their thorough responses. They have addressed my concerns and, apart from a few minor comments/suggestions listed below, I believe this manuscript is suitable for publication in ACP. There is some inconsistency with using English names or molecular formulas for chemical species (e.g. line 62 “HONO and nitrogen dioxide”).

We went through the manuscript trying to make names more consistent and refine writing in general. We did a number of other minor editing changes to improve the manuscript readability. The track-changed document is attached below for your reference.

My previous comment regarding the phrase (line 145) was not well expressed. My concern with this sentence is that it currently reads as if the same sample was extracted with solvents of multiple polarities (i.e. an extraction study), which this is not. I suggest re-phrasing slightly to clarify that different methods are applied to different samples.

Good point. We now say “Samples collected on filters were extracted by a mixture of dichloromethane, acetonitrile, and hexanes...”

The phrase on line 410 “...exhibited a reduction in absorbance almost exactly to that observed in the filter...” is awkward. Suggest re-phrasing.”

The new sentence is: “The reduction in absorbance in the solution-phase spectra was comparable to that observed in the filter transmission spectra (Figure S2).”