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Interactive comment

Interactive comment on "Non-target and suspect characterisation of organic contaminants in ambient air, Part I: Combining a novel sample clean-up method with comprehensive two-dimensional gas chromatography" by Laura Röhler et al.

**Anonymous Referee #1** 

Received and published: 11 May 2020

The manuscript entitled "Non-target and suspect characterisation of organic contaminants in ambient air, Part I: Combining a novel sample clean-up method with comprehensive two-dimensional gas chromatography" reports a newly clean-up method for the identification of POPs and CECs by GCxGC-MS. The topic is of high interest and the manuscript is well written and organized. Few questions should be addressed before publishing the manuscript: 1. Page 4 lines 18-19. Despite the methodology has been already published, it would be helpful to provide in the manuscript a short description.

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Discussion paper



2. Page 5 lines 8-9. The quantitative methods must be described, even if they are published, owing to their impact on the results. This information can be given in the supplementary material. 3. Page 7 lines 4-7. Could they be eluted from the column by using a stronger combination solvent? Did the authors try a second elution step? 4. In my opinion, it is not necessary to create a new level of identification. The manuscript levels 0-4 match perfectly with Schymansky's levels 1-5. And the manuscript level 5 used to describe the compound of interest is not needed. Indeed, this scale was developed to describe the level of confidence of the identifications, and "mass spectra of interest" is not an identification level. These compounds can be reported in a separate list. 5. Page 9 lines 1-4. Can the authors explain such a high variability?

Interactive comment on Atmos. Chem. Phys. Discuss., https://doi.org/10.5194/acp-2020-263, 2020.

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