

Atmos. Chem. Phys. Discuss., referee comment RC1  
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## Comment on acp-2021-585

Anonymous Referee #1

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Referee comment on "Potential new tracers and their mass fraction in the emitted PM<sub>10</sub> from the burning of household waste in stoves" by András Hoffer et al., Atmos. Chem. Phys. Discuss., <https://doi.org/10.5194/acp-2021-585-RC1>, 2021

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General comments:

This manuscript presents potentially important new marker compounds for the illegal combustion of household waste, especially originating from plastic- or plastic-coated materials. The authors collected PM samples emitted from the combustion of variety of plastic materials combusted in a laboratory setup and analysed marker and non-marker compounds using GC/MS. Notable is that the authors show potentially useful plastic combustion markers from both laboratory and ambient PM samples such as the trimer of styrene for polystyrene combustion, melamine for low density fibreboard combustion, and 2-(Benzoyloxy)ethyl vinyl terephthalate for PET combustion.

The manuscript is well written and easy to follow. I ask the authors to address one minor comment prior to the publication of this manuscript.

Minor comments:

I recommend the authors adding the structures of all marker compounds identified in this study (135-TPB, o-TPH, m-TPH, p-TPH, m,p-QTPH, p-QTPH, 2-BEVT, 124-TPB, SSS, ASA, ASS, SSA, SAS, and melamine). This helps readers to relate the marker compounds to a type of plastics combusted in this study.