

Interactive comment on “Arabitol, mannitol and glucose as tracers of primary biogenic organic aerosol: influence of environmental factors on ambient air concentrations and spatial distribution over France” by A. Samaké et al.

Anonymous Referee #1

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This manuscript provides detailed insights into the biogenic primary organic aerosol emission sources of the primary sugar compounds (SC), i.e., glucose, arabitol and mannitol. The study has been carefully designed and the results have been interpreted in detail. The study covers 16 nation-wide sites all over France and contains a very comprehensive data set. It is clearly shown that the main drivers of SC atmospheric concentrations are ambient air temperature, relative humidity and vegetation density.

Specific comments:

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1. Introduction: glucose is recognized as a tracer for plant pollen but also for biomass burning. I miss some discussion about this issue in the introduction.

2. In several parts of the text, figures and tables, mention is made of "glucose" but in fact "free cellulose" is meant. In order to avoid confusion, I suggest to make this more clear and replace "glucose" by "free cellulose".

Technical corrections:

References: should be ordered chronologically.

Interactive comment on Atmos. Chem. Phys. Discuss., <https://doi.org/10.5194/acp-2019-434>, 2019.

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