

# ***Interactive comment on “Ideas and Perspectives: On the emission of amines from terrestrial vegetation in the context of atmospheric new particle formation” by J. Sintermann and A. Neftel***

## **Anonymous Referee #1**

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This paper presents interesting idea about closing the gap between current knowledge on amine emissions and its surprisingly important role in new particle formation. The vegetation-generated amines are likely indeed important given the high NPF rates observed in remote region, where agricultural activities are low and long-range transport is also unlikely. This may be an overlooked point and the authors comprehensively summarize and prove this is likely very true. The paper is very well written and should be published in BG, i only have a few

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general comments, which might improve this work.

1) as the vegetation source of amines might be important but measurements are lacking, can the authors make some recommendations about conducting measurements in this aspect?

2) The title include "perspective", however, in my viewpoint, there is now not enough content to recommend how can we close the gap. from both experimental, modeling sides, also, likely some discussions regarding the future directions will be nice.

3) Although by adding a few ppts of amines to the SA-H<sub>2</sub>O system from CLOUD chamber studies, it is able to reproduce the observed NPF rates in remote forested region. However, i feel we have to be careful about over-interpretation of the role of amine in NPF, since there are also CLOUD chamber studies proving the extremely low volatility organic vapors can do the same job as amines, it is somehow not clearly quantifiable the relative contributions of amines and low-volatility compounds in the NPF events probably (or if there is, the authors should mention this ). And i think this is worth to be mentioned in the MS.

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