We thank the reviewers for the input and resulting improvements to the manuscript.

**Response to Reviewer 1:**

**Minor and technical comments:**
(1) lines 105-107: '. . . the anthropogenic molecules have a tendency to reduce water uptake and thereby REDUCE the viscosity of the mixed particles.' I believe you meant to say '. . . ENHANCE the viscosity'.

Thank you. The correction is made.

(2) lines 101-103: these statements are also supported by the model calculations of Berkemeier et al. (Atmos. Chem. Phys., 14, 12513–12531, 2014.) suggesting that the anthropogenic aromatic SOA precursors naphthalene may lead to higher-viscosity secondary organic material when compared to biogenic precursors such as pinene and isoprene.

This reference is added.

(3) In Figure 2b the dashed red line indicating 'pollution at night' is missing. Is this by accident or intentional?

For Figure 2b, there were no data that fit the classification of "pollution at night". The figure caption is clarified, as follows: *"No data sets fit the classification of Manaus pollution during the nighttime of IOP2 (i.e., absence of red dashed line in panel (b))."*

(4) lines 368-379 and Figure 7: the hygroscopicity was measured using different approaches. This is openly discussed in the text, but I would like you to mention that _CCN and _HGF can be quite different for solutes that form non-ideal aqueous solutions. Therefore, I suggest to indicate in the Figure (or at least in the figure caption) that the plotted _-values were obtained by different methods at different humidity.

$\kappa_{CCN}$ and $\kappa_G$ are now included in Figure 7. The following clarification is added to the figure caption: "*Different techniques were used to measure $\kappa_G$ and $\kappa_{CCN}$, as described in the main text.*"

The main text is changed by deleting two sentences and replacing them with the following: "Sub- and supersatured κ values can be systematically different (Petters and Kreidenweis, 2007; Ruehl et al., 2016)."