Reply to Anonymous Referee #1

Answers to Specific Comments:

- The available information is insufficient to favor any of the hypotheses. Then, the second hypothesis will be included in the abstract.
- We agree with the Reviewer that the hypothesis of bioaerosols has been poorly described in the manuscript. It has been shown that biological particles can be released during precipitation or periods of high humidity through mechanical mechanisms. For instance, winds produced by storms can release biological particles from leaf surfaces and soil. The release of these biological particles include biological IN (bacteria, fungal spores, and pollen) which can impact the IN population. We will extend the description of this hypothesis in the revised manuscript.
- Prenni et al. and Huffman et al. have employed the continuous flow diffusion chamber for the measurements of IN concentrations. These measurements were made above water saturation (103–106% RH with respect to water). Instead, the measurements in the current work were made below water saturation. It will be mentioned in the revised manuscript.
- This suggestion will be considered in the revised manuscript.
- It will be changed in the revised manuscript.

All the technical comments will be taken into account.