

**Authors' response to reviewer's comments for "The Microfluidic Ice Nuclei Counter Zürich (MINCZ): A platform for homogeneous and heterogeneous ice nucleation" by Florin N. Isenrich, Nadia Shardt, Michael Rösch, Julia Nette, Stavros Stavrakis, Claudia Marcolli, Zamin A. Kanji, Andrew J. deMello, and Ulrike Lohmann**

We are grateful for Gabor Vali's follow-up comment and constructive suggestion to improve our manuscript. Below we outline our reply and revisions to the manuscript. Page and line numbers refer to the uploaded document with tracked changes.

**Reviewer #1: Gabor Vali**

**Comment**

As already indicated in my comment on the original submission, the data presentation in Fig 4 in terms of fraction frozen has disadvantages. This becomes most acute for the comparison with the results of Welts et al. (2019). The agreement found (for one of the particle sizes) must be considered coincidental in view of the large difference in INP concentration and in INP surface area. Single particles per drop in one case versus a suspension of powder in the other. This problem is mentioned in the text but not in the figure caption. Since for many people, graphs sum up the work this is worth correcting. Also, for what can be gained from the comparison it takes much space to describe and explain. The comparison is quite secondary to the description of the new instrument and to demonstrating its performance.

**Authors' response**

We agree on the importance of being careful when interpreting frozen fractions between instruments, and we have added a sentence to emphasize this in the caption.

**Change to manuscript**

Page 13, lines 386–387: added "We emphasize that the total particle surface area in each case must be considered when comparing frozen fractions."

To shorten the caption of Fig. 4, other minor changes are tracked in the attached document.