

Dear Dr. Frey:

Regarding your comment about the shattering treatment, I have spoken with the responsible coauthor. Please find the answer below, typeset in [blue colour](#).

We further found a small error in the scaling of the microscopic images in figure 15, which is corrected in the latest manuscript version.

We thank you again for your support during the review phase of our manuscript.

Kind regards,

Dr. S. Bansmer

I only have one point left where I would suggest to keep the sentence you removed now from the manuscript (starting "The particle sizes in the wind tunnel..."):

p20, l2-6:

"... Shattering of large particles is a function of IWC, see Field et al. (2006). The particle sizes in the wind tunnel were rather small (MMD around 80  $\mu\text{m}$ ) thus the fraction of shattered particles is expected to be less than 1%. Since furthermore hardly any particles were larger than the full array width, see the results in section 4.6.4, we argue that large particles that would have caused shattering artefacts are not present in the icing wind tunnel. Therefore the shattering treatment was turned off."

Maybe you could reduce potential confusion by rephrasing the second removed sentence similar to:

"Additionally, the high concentrations in the wind tunnel would have rendered an interparticle time analysis difficult because the inter-particle times of the wind tunnel particles are generally small and hard to distinguish from those of possible shattering artefacts."

That information could be kept before the sentence starting "Therefore, the shattering treatment...", I leave this up to you.

[We still would like to remove the sentence.](#) "Additionally, the high concentrations in the wind tunnel would have rendered an inter-particle time analysis difficult because the inter-particle time of shattered and non-shattered particles were similar."

[We feel that this sentence might suggest that we wanted to avoid an inter-particle time analysis because it were a difficult task. However, a difficult task shall not be an excuse for not undertaking the necessary effort. Since we provided some good arguments in the subsequent sentence "Since hardly any particles were larger than the full array width, we argue that large particles that would have caused shattering artefacts are not present in the icing wind tunnel.", another reference to an inter-particle time analysis seems not necessary from our point of view.](#)