

Interactive comment on “An instrumented sample holder for time-lapse micro-tomography measurements of snow under advective airflow” by P. P. Ebner et al.

Anonymous Referee #1

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This manuscript reports the new sample holders to examine the micro - structure change of snow under advective airflow in the μ -CT. The manuscript mainly concentrates the description of the sample holder design with enough information including the performance evaluation based on scientific evidence. In addition, the manuscript also reported the preliminary results using these sample holders, which imply the effectiveness of the developed holder in the micro-structure study of snow. The manuscript is very well written, and I do not see any problems with the presentation. Moreover, the reported new holders should become the powerful tools for future study of the micro - structure change of snow. I believe the manuscript requires only minor editing before

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publication in Geoscientific Instrumentation, Methods and Data Systems. I have provided specific editorial comments below, and my suggestions for improvement of the text.

Specific comments:

2.2 Sample holder design Please add the information on weight of each sample holder. This information should be useful for readers because the authors indicated the limitation of weight of the sample holders.

3. Calibration

L171-173 This sentence is hardly followed up. What is meaning of “first mm”? Please add a more detailed explanation.

5. Experiments with snow

Please add the definition of ΔT to the figure caption of Fig. 4.

Suggestions for improvements:

3. Calibration

L136 snow should be s

L163 σ_s should be σ_p

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