



Variability of IN measured with the Fast Ice Nucleus Chamber (FINCH) at the high altitude research station Jungfraujoch during wintertime 2013

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Ice nuclei (IN) are an important component of the atmospheric aerosol. Despite their low concentrations in the atmosphere, they have an influence on the formation of ice crystals in mixed-phase clouds and therefore on precipitation.

The Fast Ice Nucleus Chamber (FINCH)¹, a counter for ice nucleating particles developed at the Goethe University Frankfurt am Main allows long-term measurements of the IN number concentration. In FINCH the ice activation of the aerosol particles is achieved by mixing air flows with different temperature and humidity. The IN number concentration measurements at different meteorological conditions during the INUIT-JFJ campaign at the high altitude research station Jungfraujoch in Switzerland are presented and its variability are discussed. The good operational performance of the instrument allowed up to 10 hours of continuous measurements.

Acknowledgment:

This work was supported by the German Research Foundation, DFG Grant: BU 1432/3-2 BU 1432/4-1 in the framework of INUIT (FOR 1525) and SPP 1294 HALO.

1- Bundke, U., Nillius, B., Jaenicke, R., Wetter, T., Klein, H., and Bingemer, H. (2008). The fast ice nucleus chamber finch. *Atmospheric Research*, 90:180–186.