



## **Variability of ambient ice nuclei concentration at different timescales**

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Ice nuclei are a rare species of aerosol particles in the atmosphere. Concentrations of 1-30 IN/ liter are often observed in mid-latitudes. The ice nucleus counter FINCH (Fast Ice Nuclei CHamber counter) is designed for a high aerosol probe flow rate (of up to 5 liter per minute) in order to get a better counting statistic. But even then, the counting statistic is quite poor for small timescales.

On the basis of the lowest time resolution of 30 sec integration time of FINCH, we will show a variability analysis of the observed high variability of IN number concentration measurements on the mountain Zugspitze (Germany) during the ACRIDICON (Aerosol, Cloud, Precipitation and Radiation Interactions and Dynamics of Convective Cloud Systems) campaign, Sept-Oct. 2012 in comparison to measurements on the mountain Puy de Dôme (France) during wintertime Jan-Feb 2012.

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