

Review of Erhardt et al., 2021, "High resolution aerosol concentration data from the Greenland NorthGrip and NEEM deep ice cores"

For Earth System Science Data

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The authors present the full high resolution (1 mm) datasets from the NorthGRIP and NEEM ice cores, and include a history and perspective on the development of Continuous Flow Analysis systems that led to the datasets. I appreciated the level of detail provided on the analytical systems, the assessment of data quality, and the detailed description of the effective data resolution. These are critical data for understanding the Earth system and Arctic in particular, so I am glad to see this information published in one place, and I feel this makes the article itself appropriate to support the publication of the dataset. The dataset is certainly unique, useful and complete, and of high quality; this paper will be a useful resource for anyone using these datasets in the future. The paper is well written; I only came across two small typos. I recommend that this paper be published essentially as is in Earth System Science Data.

Minor comments:

line 20 - "preserved in the ice as *a* wide range..."

line 35 - "build" should be built