



An annual layer counted EDML time scale covering the past 16700 years

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Using high resolution chemical impurity and dielectric profiling data annual layers have been counted on the EPICA ice core from Dronning Maud Land (EDML), Antarctica spanning the past 16700 years. The methodology used for counting Greenland ice cores and creating the Greenland Ice Core Chronology 2005 (GICC05) [Rasmussen et al., 2006] has also been implemented for the EDML counting. The estimated maximum counting error for the EDML counting is approx. 5%, but a preliminary volcanic matching with Greenland ice core records suggest differences of 1% or less during the Holocene between the EDML counting and GICC05. A comparison of cosmogenic isotope records from EDML and Greenland also suggests differences of less than 1% between the two annual layer counted chronologies.

Reference:

Rasmussen, S.O., Andersen, K.K., Svensson, A., Steffensen, J.P., Vinther, B.M., Clausen, H.B., Andersen, M.L.S., Johnsen, S.J., Larsen, L.B., Dahl-Jensen, D., Bigler, M., Röthlisberger R., Fischer H., Goto-Azuma K., Hansson M.E., Ruth U, A new Greenland ice core chronology for the last glacial termination, Journal of Geophysical Research Vol. 111, D06102, doi:10.1029/2005JD006079. 2006.