

## Laschamp geomagnetic excursion found at 41 kyr BP as a Be-10 peak in the Dome Fuji ice core, Antarctica

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Detecting timing of climate changes in the past in different geographical sites is a key to understand the mechanism of global climate. Cosmogenic nuclides are particularly useful such as the Be-10 and Cl-36 since they vary with paleo-geomagnetic intensity fluctuations. In this study, we measured the concentrations of cosmogenic isotope Be-10 between 700-850 m depth from top of the Dome Fuji ice core, Antarctica by Accelerator Mass Spectrometry (AMS) at the MALT the University of Tokyo. The resolution of the sample is 1 m (about 75 years), and samples covered a range from 35 to 45 kyr according to the DFO-2006 age (Kawamura et al., 2007). A distinct Be-10 peak was detected at around the 41 kyr BP. This was attributed as a lower geomagnetic field intensity known as the Laschamp excursion. The Be-10 peak corresponding to the Laschamp excursion has been found in several geological archives globally, and hence it can be used as an accurate time markers amongst paleo climatic records. The concentration of Be-10 around the peak was ranged from  $1.3 \times 10^5$  to  $3.2 \times 10^5$  atoms/gICE and we calculated the flux using oxygen isotope record in ice which is an indicator of the snow accumulation rate at the site. As a result, the profile of the Be-10 flux is very similar to the one reported in the Dome C ice core, Antarctica (Raisbeck et al., 2007). This indicates that the both cores can directly compare the differences of each climatic variation without other uncertainties. In our presentation, we will show the detailed Be-10 profile during the excursion and compares with other archives.