Research of annual cosmic ray events using 10Be in the Dome Fuji ice core

*Fusa Miyake¹, Kimiaki Masuda¹, Kazuho Horiuchi², Hideaki Motoyama³, Hiroyuki Matsuzaki⁴, Yuko MOTIZUKI⁵, Kazuya Takahashi⁵, Yoichi Nakai⁵

1.Institute for Space-Earth Environmental Research, Nagoya University, 2.Graduate School of Science and Technology, Hirosaki University, 3.National Institute of Polar Research, 4.MALT, University Museum, University of Tokyo, 5.RIKEN

Cosmogenic nuclides, 14C and 10Be, are produced in the atmosphere by cosmic rays from outside the Earth. Carbon-14 is stored in tree-rings, and beryllium-10 is stored in ice sheets. Then, we can investigate past cosmic ray intensities by analyzing concentrations of 14C or 10Be. Annual cosmic ray increase events (AD 775 and AD993 or AD994) were found in 14C data of tree-rings. These events were also shown in quasi-annual 10Be data in the ice cores from the Antarctica and the Greenlands. We analyzed quasi-annual 10Be concentration in the Dome Fuji ice core, and detected the cosmic ray events. In this presentation, we will report the results of quasi-annual 10Be measurements, and discuss a comparison with 14C data.

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