

## Chemical solutes and mineral particles in a shallow ice core from Tienshan Urumqi No.1 Glacier

\*Kenshiro Miyauchi<sup>1</sup>, Nozomu Takeuchi<sup>1</sup>, Kozue Wakabayashi<sup>1</sup>, Yoriko Ishida<sup>1</sup>, Zhongqin Li<sup>2</sup>

1.Chiba University, 2.Tienshan Glaciological Station

Ice cores drilled from glaciers in central Asia usually contain a number of dust layers because dust storms frequently occur and supply dust on such mountain glaciers. Dust layers are usually used to distinguish annual layers, however, chemical and mineralogical characteristics of each dust layer have not been studied well. In this study, we analyzed an 8 m-deep ice core drilled from Tienshan Urumqi Glacier No.1 in 2006 in order to characterize dust layers chemically and mineralogically. Microscopy revealed 10 dust layers in the core. The concentration of dust particles did not agreed with those of Ca or Mg, which are derived from dust particles. Furthermore, Ca/Mg ratio varied among the dust layers, suggesting that the mineralogical composition of dust layers differed from year to year.

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