

## Past climate reconstruction from Ushkovsky ice core

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Many ice cores have been drilled on Alpine glaciers in the world. Merits of the Alpine ice core research are their records contain local climate records, and most high altitude past climate records. There was only a few past climate records in Kamchatka Peninsula. An ice core was drilled on the ice cap of Ushkovsky volcano, in Kamchatka peninsula, for the past climate reconstruction of Kamchatka. It had been analyzed to 102m. I analyzed water isotope ( $\delta D$ ,  $\delta^{18}O$  and  $d$ -excess, which is defined by both) to 140m. It dated 1750's on 140m by isotope seasonal change. Annual mean  $\delta D$  is correlated to annual mean temperature weighted by the precipitation seasonal change of Kljuchi, where the closest climate station from Ushkovsky volcano. 20 year running mean of  $\delta D$  shows obviously change between late 19 century and early 20 century. Average  $\delta D$  increased during the period. 5 year running mean accumulation rate reconstructed by ice core is correlated with Kljuchi's precipitation rate. Therefore, it becomes a proxy of long term regional precipitation.

