A Big Earth Data Platform for Three Poles

**Ice core records of temperature and precipitation in the KuoKuosele glacier (1900-2011)**

1、Description

1) The data include annual scale oxygen isotope and accumulation records of ice cores from 1900 to 2011, which respectively reflect the temperature and precipitation changes in the study area; 2) For analysis, the ice core samples were first measured using Picaro δ 18O and as per δ The seasonal variation characteristics of 18O determine the age of ice core; The accumulation of ice cores is calculated according to the density of ice cores, the length of ice cores per year and the glacier flow model; 3) Professional laboratory personnel and front-line scientific research personnel operate and maintain the instrument to ensure the reliability of analysis data; 4) The data can be used to analyze the climate and environmental changes in the typical westerly region of the Qinghai Tibet Plateau over the past 100 years, and can be used to explore the evolution of glaciers in this period, providing scientific reference for predicting the future evolution of glaciers, changes in hydrology and water resources and their impact on human activities.

2、Keywords

Theme：Ice-core,Glacier(Ice Sheet),Paleoclimate Reconstruction
Discipline：Palaeoenvironment,Cryosphere
Places：KuoKuosele ice core
Time：1900-2011

3、Data details

1.Scale：None

2.Projection：

3.Filesize：0.02MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.28 | - |
| west：75.1 | - | east：75.1 |
| - | south：38.28 | - |

5、Time frame:1899-12-31 15:54:00+00:00--2011-12-30 16:00:00+00:00

6、Reference method

References to data:

XU Baiqing. Ice core records of temperature and precipitation in the KuoKuosele glacier (1900-2011). A Big Earth Data Platform for Three Poles, doi:10.11888/Cryos.tpdc.2727562022

References to articles:

Yang, X.X., Yao, T.D., & Deji, et al. (2018). Possible ENSO Influences on the Northwestern Tibetan Plateau Revealed by Annually Resolved Ice Core Records. J Geophys Res-Atmos, 123(8), 3857-70.

Zhao, H.B., Yao, T.D., & Xu, B.Q. (2021). High-elevation climate changes recorded in Tibetan ice cores and their impact on glacier behavior. Palaeogeogr Palaeocl, 576.

Deji, Yao, T.D., & Yang, X.X., et al. (2017). Warming and wetting climate during last century revealed by an ice core in northwest Tibetan Plateau. Palaeogeogr Palaeocl, 487, 270-7.

7、Supporting project information

8、Data resource provider

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