A Big Earth Data Platform for Three Poles

**Dataset of oxygen isotope and major ions from Geladaindong ice core (Version 1.0) (1477-1982)**

1、Description

Geladaindong ice core records could provide a unique opportunity for studying climatic and environmental changes in the central TP. Based on a 147 m deep ice core drilled by the Sino-US Cooperation Expedition in 2005 at Mt. Geladaindong, we analyzed oxygen and major ion by using MAT253 isotope mass spectrometer and Ion Chromatograph. Multiparametric dating approach is adopted to establish an accurate chronology. Glaciochemical records were reconstructed to reveal the annual climatic and environmental changes during the period of 1477~1982 AD.

2、Keywords

Theme：Geladandong,Ice core,Tibetan plateau,Settlement,Glacier(Ice Sheet)  
Discipline：Human-nature Relationship,Cryosphere  
Places：Tibetan Plateau  
Time：1477-1982

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：0.056MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：33.0 | - |
| west：92.0 | - | east：92.0 |
| - | south：33.0 | - |

5、Time frame:1477-01-07 09:48:20+00:00--1983-01-06 08:00:00+00:00

6、Reference method

References to data:

KANG Shichang. Dataset of oxygen isotope and major ions from Geladaindong ice core (Version 1.0) (1477-1982). A Big Earth Data Platform for Three Poles, doi:10.11888/Glacio.tpdc.2702382019

References to articles:

Zhang, Y.L., Kang, S., Grigholm, B., Zhang, Y., Kaspari, S., Morgenstern, U., Ren, J., Qin, D., Mayewski, P.A., Zhang, Q., Cong, Z., Sillapää, M ., Schwikowski, M., Chen, F. (2016). Twentieth century warming preserved in a Mt. Geladaindong ice core, central Tibetan Plateau. Annals of Glaciology, 57(71). Doi: 10.3189/2016AfG71A001.  
  
Yulan Zhang, S. Kang, Q. Zhang, B. Grigholm, S. Kaspari, Q. You, D. Qin, P.A. Mayewski, Z. Cong, J. Huang, M. Sillanpää, F. Chen, 2015. A 500 year atmospheric dust deposition retrieved from a Mt. Geladaindong ice core in the central Tibetan Plateau. Atmospheric Research, 166: 1-9. Doi: 10.1016/j.atmosres.2015.06.007.

7、Supporting project information

Pan-Third Pole Environment Study for a Green Silk Road-A CAS Strategic Priority A Program

8、Data resource provider

name: KANG Shichang  
unit: Northwest Institute of Eco-Environment and Resources, CAS  
email: shichang.kang@lzb.ac.cn