A Big Earth Data Platform for Three Poles

**The Active layer moisture monitoring dataset of Tibet Plateau Beibeihe meteorological station (2017-2018)**

1、Description

The active layer is one of the main characteristics of permafrost. It melts in warm season and freezes in cold season, showing seasonal changes. The change of ground temperature of active layer will directly affect the change of temperature of permafrost, thus affecting the stability of permafrost.The monitoring station of this data set is located at 92 °E, 35 ° N, with an elevation of 4,600 M. The monitoring site is flat, the vegetation type is alpine meadow, and the monitoring instrument is DT500 series data acquisition instrument. The monitoring of ground temperature is carried out at 5 depths below the surface, 10 cm, 20 cm, 40 cm, 80 cm and 160cm respectively. The time interval of this data set is 1 day, which is the average value of data once every 30 minutes.Data are stable and continuous during the period.Scientific subjects such as thermal change process and change mechanism of active layer are carried out by combining data of soil heat flux and soil moisture.

2、Keywords

Theme：Active layer,Frozen Ground
Discipline：Cryosphere
Places：Tibetan Plateau
Time：2017-2018, daily

3、Data details

1.Scale：None

2.Projection：

3.Filesize：0.06MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：35.0 | - |
| west：92.0 | - | east：92.0 |
| - | south：35.0 | - |

5、Time frame:2017-01-07 00:00:00+00:00--2018-11-06 00:00:00+00:00

6、Reference method

References to data:

The Active layer moisture monitoring dataset of Tibet Plateau Beibeihe meteorological station (2017-2018). A Big Earth Data Platform for Three Poles, doi:10.11888/Geocry.tpdc.2704592018

References to articles:

Chen, J., Zhao, J.Y., Li, K., &Sheng, Y. (2016). Discussion on applying an analytical method to optimize the anti-freeze design parameters for underground water pipelines in seasonally frozen areas. Sciences in Cold and Arid Regions, 8(6), 467–476.

7、Supporting project information

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

8、Data resource provider