A Big Earth Data Platform for Three Poles

**Spatial and temporal distribution data set of glacier light absorbing substances in Central Asia(2016-2017)**

1、Description

The data is an excel file, which includes four tables named as follows: Altay Snow DOC Time Series, Altay Snow Pit Data, Altay Snow MAC (absorption section) and Central Asia Mos Island Glacier BC, OC, DUST Data. Altay snow DOC table includes seven columns including sample number, sampling date, sampling time, sampling depth, DOC-PPM, BC-PPb and TN-PPM, and 47 sample data. Altay snow pit table includes 8 columns including snow pit number, sample number, sampling date, sampling time, sampling depth, DOC-PPM, BC-PPb and TN-PPM, and 238 sample data. Altay snow MAC table includes: sampling time, MAC and AAE, a total of three columns, and 46 sample data. The BC, OC and DUST data tables of glaciers in Central Asia's Muse Island include 8 columns: code no (sample number), Latitude (latitude), Longitude (longitude),/m a.s.l (altitude), snow type (snow type), BC, OC and DUST, which are analyzed by sampling time. There are 105 rows of data in total.  
Abbreviation explanation:  
DOC: Dissolved Organic Carbon  
MAC: mass absorption cross section  
BC: black carbon  
DUST: Dust  
OC: Organic carbon  
TN: Total Nitrogen  
PPM: ug g-1 (microgram per gram)  
PPb: ng g-1 (nanogram per gram)

2、Keywords

Theme：DOC,Element content,Snow,Light-absorbing impurities,Glacier(Ice Sheet)  
Discipline：Cryosphere  
Places：Aletai  
Time：2016-2017

3、Data details

1.Scale：None

2.Projection：

3.Filesize：0.39MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：52.0 | - |
| west：84.0 | - | east：99.0 |
| - | south：45.0 | - |

5、Time frame:2015-12-31 16:00:00+00:00--2017-12-30 16:00:00+00:00

6、Reference method

References to data:

ZHANG Yulan. Spatial and temporal distribution data set of glacier light absorbing substances in Central Asia(2016-2017). A Big Earth Data Platform for Three Poles, doi:10.11888/Cryos.tpdc.2727932022

References to articles:

Zhang, Y., Gao, T., Kang, S., Sprenger, M., Tao, S., & Du, W., et al. (2020). Effects of black carbon and mineral dust on glacial melting on the Muz Taw glacier, Central Asia. Sci Total Environ, 740, 140056.

7、Supporting project information

CASEarth:Big Earth Data for Three Poles（grant No. XDA19070000）

8、Data resource provider

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