A Big Earth Data Platform for Three Poles

**Aerosol (2013-2014), glacier snow pit (2013, 2014, 2020), precipitation (2013, 2014, 2015) carbon isotope data set of typical sites on the Qinghai Tibet Plateau**

1、Description

The data set includes carbon isotope data of different regions of the Tibetan Plateau and different environmental (carbon isotope data of black carbon and organic carbon in aerosols from 10 typical stations of the Qinghai Tibet Plateau, carbon isotope data of black carbon and water insoluble organic carbon in 11 snow pits in different years, and carbon isotope data of water-soluble organic carbon in monsoon precipitation from 11 stations of the Qinghai Tibet Plateau and its surrounding areas), All samples were collected at each site, and the content and δ 13C and Δ 14C data, which can be used to accurately assess the contribution proportion of atmospheric carbon aerosols, carbon particles deposited on glaciers and water-soluble organic carbon in precipitation from fossil fuels and biomass fuels.

2、Keywords

Theme：Dry and Wet Deposition,Aerosol,carbon isotope,Carbonaceous particles,carbon isotope,Glacier(Ice Sheet)  
Discipline：Atmosphere,Cryosphere  
Places：Tibet Plateau  
Time：2013, 2015, 2014, 2020

3、Data details

1.Scale：None

2.Projection：

3.Filesize：0.02MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：35.0 | - |
| west：75.0 | - | east：105.0 |
| - | south：25.0 | - |

5、Time frame:2013-03-31 16:00:00+00:00--2020-05-01 03:59:59+00:00

6、Reference method

References to data:

LI Chaoliu . Aerosol (2013-2014), glacier snow pit (2013, 2014, 2020), precipitation (2013, 2014, 2015) carbon isotope data set of typical sites on the Qinghai Tibet Plateau. A Big Earth Data Platform for Three Poles, doi:10.11888/Atmos.tpdc.2729422022

References to articles:

Li, C., Bosch, C., Kang, S., Andersson, A., Chen, P., Zhang, Q., Cong, Z., Chen, B., Qin, D., & Gustafsson, O. (2016). Sources of black carbon to the Himalayan-Tibetan Plateau glaciers. Nature Communication, 7, 12574.  
  
Li, C., Bosch, C., Kang, S., Andersson, A., Chen, P., Zhang, Q., Cong, Z., Tripathee, L., & Gustafsson, O. (2022). 14C characteristics of organic carbon in the atmosphere and at glacier region of the Tibetan Plateau. Science of the Total Environment, 832, 155020.  
  
Li, C., Chen, P., Kang, S., Yan, F., Tripathee, L., Wu, G., Qu, B., Sillanpää, M., Yang, D., Dittmar, T., Stubbins, A., & Raymond, P.A. (2018). Fossil Fuel Combustion Emission From South Asia Influences Precipitation Dissolved Organic Carbon Reaching the Remote Tibetan Plateau: Isotopic and Molecular Evidence. Journal of Geophysical Research: Atmospheres, 123, 6248-6258.

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

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