A Big Earth Data Platform for Three Poles

**Late Holocene GDGTs and leaf wax fatty acid data from Xiada Co, western Qinghai Xizang Plateau**

1、Description

This data including the GDGTs data and fatty acid data records of Xiada Co in the west of Qinghai Tibet Plateau during the past 2000 years. These data are obtained by the research team using organic geochemical methods. The Xiada Co sediment core was collected in the summer of 2014. The water depth of the sampling point (33.392°N、79.363°E，4373m) is about 19m. The extraction of biomarkers in lake sediments was carried out by ultrasonic extraction. The extraction and testing of compounds were carried out in the laboratory of environmental change and surface processes, Institute of Qinghai Tibet Plateau, Chinese Academy of Sciences. The detection instrument of wax fatty acid compounds in sediments is gas chromatography flame ion detector (GC-FID, model: Agilent 7890a). The test instrument for GDGTs compounds is HPLC-APCI-MS (Agilent 1200 HPLC + 6100 MS), which is tested by three chromatographic columns in series. The model of chromatographic column is (hypersil gold silica, 100 mm) × 2.1 mm, 1.9 μ m). 5-methyl bgdgts isomer and 6-methyl bgdgts isomer were effectively separated by silica gel column in series. This data can provide the climatic and environmental background of human activities in the western plateau of the late Holocene, provide a basis for understanding the process and mechanism of climate change in the western Qinghai Tibet Plateau in the past 2000, and provide boundary conditions for climate simulation.

2、Keywords

Theme：Lacustrine Sediments,Paleoclimate Reconstruction
Discipline：Palaeoenvironment
Places：Tibetan Plateau
Time：the past 2000 years

3、Data details

1.Scale：None

2.Projection：

3.Filesize：0.15MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：33.42 | - |
| west：79.33 | - | east：79.42 |
| - | south：33.38 | - |

5、Time frame:None--None

6、Reference method

References to data:

LI Xiumei , HOU Juzhi. Late Holocene GDGTs and leaf wax fatty acid data from Xiada Co, western Qinghai Xizang Plateau. A Big Earth Data Platform for Three Poles, doi:10.11888/Paleoenv.tpdc.2721052022

References to articles:

Li, X.M., Wang, M.D., & Hou\*, J.Z. (2019). Centennial-scale climate variability during the past 2000 years derived from lacustrine sediment on the western Tibetan Plateau, Quaternary International, 510, 65-75.

7、Supporting project information

Pan-Third Pole Environment Study for a Green Silk Road-A CAS Strategic Priority A Program
Lake molecular fossil records of climatic change and human activities in Xiada Co on the Tibetan Plateau during the Late Holocene

8、Data resource provider

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