A Big Earth Data Platform for Three Poles

**Holocene Lake hydrodynamic changes in Bosten Lake, Xinjiang**

1、Description

Here we present a record of Holocene lake hydrodynamic intensity based on the grain size of suspended lacustrine silt isolated from the sediments of Bosten Lake. The larger the size of the suspended lacustrine silt, the stronger the hydrodynamic intensity of the lake at that time, that is, the larger the inflow and outflow, the higher the water level of the lake, and vice versa. The data can be used to indicate the evolution of lake hydrodynamics since Holocene, and provide theoretical support for the study of climate, hydrology and water resources changes in the region. This method is only suitable for the analysis of lake sediments with open basin and stable sedimental environment, and it is not suitable to use this method when the sedimentary facies changes greatly.

2、Keywords

Theme：Boreholes,Paleoclimate Reconstruction,Lake sediments
Discipline：Palaeoenvironment
Places：Bosten Lake, Loulan Culture
Time：Holocene

3、Data details

1.Scale：None

2.Projection：

3.Filesize：0.01MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：86.67 | - |
| west：41.93 | - | east：42.23 |
| - | south：87.43 | - |

5、Time frame:None--None

6、Reference method

References to data:

XIE Haichao. Holocene Lake hydrodynamic changes in Bosten Lake, Xinjiang. A Big Earth Data Platform for Three Poles, doi:10.11888/Paleoenv.tpdc.2711082021

References to articles:

Xie, H., Liang, J., Vachula, R.S., Russell, J.M., Chen, S., Guo, M., Wang, X., Huang, X., & Chen, F. (2021). Changes in the hydrodynamic intensity of Bosten Lake and its impact on early human settlement in the northeastern Tarim Basin, Arid Central Asia. Palaeogeography, Palaeoclimatology, Palaeoecology, 576, 110499.

7、Supporting project information

8、Data resource provider

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