A Big Earth Data Platform for Three Poles

**Permian detrital zircon data on the southwestern margin of the North China plate**

1、Description

This data is the detrital zircon data of the upper Shihezi Formation of the middle and Late Permian on the southwest margin of the North China plate, which is the experimental data. More than 5kg sandstone samples were collected in the field. Zircon was separated from the samples and made targets by heavy liquid and magnetic separation technology. Single grain zircon LA-ICP-MS microanalysis was carried out in the State Key Laboratory of continental dynamics of Northwestern University. The sample collection, pretreatment and experimental process are carried out according to strict standards, and the data quality is reliable. The results show that the zircon ages range from 254 to 2700 Ma, and the main peak ages are ~ 320 Ma, ~ 1765 Ma and ~ 2495 Ma, respectively. Combined with the regional geological background and sedimentological data, it is considered that the peak age of ~ 320mA can come from the northern margin of the North China plate; This also suggests that the paleotopography of the upper Shihezi Formation was high in the north and low in the south. The provenance information reflected by the middle Late Permian detrital zircon data on the southwest margin of the North China plate can provide data support for reconstructing the paleogeography of the North China plate at that time.

2、Keywords

Theme：Detrital zircon,Tectonics
Discipline：Solid earth
Places：Tibet Plateau, North China Croton
Time：Late Paleozoic

3、Data details

1.Scale：None

2.Projection：

3.Filesize：0.09MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：40.0 | - |
| west：100.0 | - | east：115.0 |
| - | south：30.0 | - |

5、Time frame:None--None

6、Reference method

References to data:

LIANG Jiwei. Permian detrital zircon data on the southwestern margin of the North China plate. A Big Earth Data Platform for Three Poles, doi:10.1016/j.gr.2020.07.0082021

References to articles:

Liang, J.W., Ma, X.J., & Tao, W.X. (2020). Detrital zircon U-Pb ages of Middle–Late Permian sedimentary rocks from the southwestern margin of the North China Craton: Implications for provenance and tectonic evolution. Gondwana Res. 88, 250–267.

7、Supporting project information

8、Data resource provider

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