A Big Earth Data Platform for Three Poles

**40Ar-39Ar age data set of biotite from the Yuechengling dome, South China (140 Ma-90 Ma)**

1、Description

The data are 40Ar-39Ar ages of biotites from granitic mylonites and gneissic granites in Yuechengling dome, South China. Firstly, the rock samples were cleaned and crushed, and then the biotite particles were selected by hand under the binocular microscope. Before preparing for dating, biotite was reexamined and fresh, transparent and inclusion free crystals were selected. The experiments were carried out in the Key Laboratory of Geology and Geophysics, Institute of Geology and Geophysics, Chinese Academy of Sciences, and in the 40Ar / 39Ar and U-Th / he laboratories. Mm5400 mass spectrometer was used to measure 40Ar / 39Ar with high resolution. Then, arcalc, a plug-in of Excel, is used to further process the original data. The data provide chronological support for the explanation of the formation process and dynamic mechanism of Yuechengling dome.
The above data have been published in tectonics, and the data are true and reliable. The data is stored in the form of Excel.

2、Keywords

Theme：Tectonics,plate tectonics
Discipline：Solid earth
Places：Yuechengling Massif, South China
Time：140 Ma-90 Ma

3、Data details

1.Scale：None

2.Projection：

3.Filesize：0.45MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：27.0 | - |
| west：110.0 | - | east：11.5 |
| - | south：25.5 | - |

5、Time frame:None--None

6、Reference method

References to data:

CHU Yang. 40Ar-39Ar age data set of biotite from the Yuechengling dome, South China (140 Ma-90 Ma). A Big Earth Data Platform for Three Poles, doi:org/ 10.1029/2019TC0055162021

References to articles:

Chu, Y., Lin, W., Faure, M., Xue, Z.H., Ji, W.B., Feng, Z.T. (2019). Cretaceous Episodic Extension in the South China Block, East Asia: Evidence From the Yuechengling Massif of Central South China. Tectonics, 38(10), 3675-3702.

7、Supporting project information

The deep process and resource effect of major geological events in Yanshan period

8、Data resource provider

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