A Big Earth Data Platform for Three Poles

**Magnetic susceptibility anisotropy and 40Ar-39Ar age data set of the Dayunshan-Mufushan pluton in South China (150-95 MA)**

1、Description

The data consist of two parts: AMS data of the Dayunshan-Mufushan pluton and 40Ar-39Ar ages of biotite, amphibole and Muscovite in the granitic mylonite and mica schist in the southern margin of the pluton. In the field, a portable gasoline drill was used to collect rock core columns, and then the samples were cut into standard columns with a diameter of 2.5 cm and a height of 2.2 cm indoor. The final test was completed in the paleomagnetism Laboratory of Institute of Geology and Geophysics, Chinese Academy of Sciences. The 40Ar-39Ar dating of minerals mainly includes the following steps. 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 interpretation of emplacement process and dynamic mechanism of dayunshan Mufushan pluton.  
The above data have been published in the Journal of geophysical research: solid earth, and the data are true and reliable

2、Keywords

Theme：Tectonics,plate tectonics  
Discipline：Solid earth  
Places：Dayunshan-Mufushan Massif  
Time：150 Ma-95 Ma

3、Data details

1.Scale：None

2.Projection：

3.Filesize：0.05MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：29.5 | - |
| west：113.0 | - | east：114.5 |
| - | south：28.5 | - |

5、Time frame:None--None

6、Reference method

References to data:

JI Wenbin. Magnetic susceptibility anisotropy and 40Ar-39Ar age data set of the Dayunshan-Mufushan pluton in South China (150-95 MA). A Big Earth Data Platform for Three Poles, doi:10.11888/Geo.tpdc.2713272021

References to articles:

Ji, W. B., Faure, M., Lin, W., Chen, Y., Chu, Y., Xue, Z. H. (2018a). Multiple Emplacement and Exhumation History of the Late Mesozoic Dayunshan-Mufushan Batholith in Southeast China and Its Tectonic Significance: 1. Structural Analysis and Geochronological Constraints. Journal of Geophysical Research: Solid Earth, 123(1), 689-710.  
  
Ji, W. B., Chen, Y., Chen, K., Wei, W., Faure, M., Lin, W. (2018b). Multiple Emplacement and Exhumation History of the Late Mesozoic Dayunshan-Mufushan Batholith in Southeast China and Its Tectonic Significance: 2. Magnetic Fabrics and Gravity Survey. Journal of Geophysical Research: Solid Earth, 123(1), 711-731.

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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