A Big Earth Data Platform for Three Poles

**Chronological and mineralogical data sets of garnet Staurolite mica schists from xiangtaohu area, central Qiangtang, Tibet**

1、Description

In this project, the garnet Staurolite mica schist in xiangtaohu area of central Qiangtang was systematically analyzed by petrology, mineralogy, detrital zircon and Muscovite ar Ar dating. Petrological and mineralogical studies show that the samples underwent the superposition of early blueschist facies and late amphibolite facies metamorphism. Detrital zircon analysis shows that the samples were derived from Carboniferous island arc magmatism in the hanging wall of the subduction zone. The AR AR results of Muscovite are 263-259 Ma, which represents the cooling age of the diapir after it entered the middle and lower crust of the hanging wall. This study reveals the subduction erosion during the subduction of oceanic plate from the perspective of metamorphic evolution for the first time, and suggests that the special rocks exposed in the low temperature / high pressure metamorphic belt may have important implications for identifying the subduction erosion in the ancient subduction zone.

2、Keywords

Theme：zircon,electron microprobe,Rocks/Minerals,metamorphic rocks
Discipline：Solid earth
Places：central Qiangtang, Tibet
Time：Late Permian

3、Data details

1.Scale：None

2.Projection：

3.Filesize：0.06MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：34.32 | - |
| west：84.67 | - | east：84.95 |
| - | south：34.25 | - |

5、Time frame:None--None

6、Reference method

References to data:

ZHANG Xiuzheng. Chronological and mineralogical data sets of garnet Staurolite mica schists from xiangtaohu area, central Qiangtang, Tibet. A Big Earth Data Platform for Three Poles, doi:10.11888/Geo.tpdc.2713222021

References to articles:

Zhang, X.-Z., Dong, Y.-S., Wang, Q., Dan, W., Zhang, C., Xu, W., Huang, M.-L., (2017). Metamorphic records for subduction erosion and subsequent underplating processes revealed by garnet-staurolite-muscovite schists in central Qiangtang, Tibet. Geochemistry Geophysics Geosystems18, 266–279.

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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