A Big Earth Data Platform for Three Poles

**Zircon U-Pb dating and Hf isotope data of granite in eastern Tibet**

1、Description

The separation of zircon was completed by heavy liquid and magnetic separation in the laboratory of Hebei geological team. Cathodoluminescence images are used to observe the internal structure of zircon particles, and appropriate points are selected for analysis and research. U. Th and Pb were determined in La ⁃ ICP ⁃ ms of Qinghai Tibet Plateau Institute, Chinese Academy of Sciences. For detailed analysis methods, see Li et al. (2009). Zircon standard sample and zircon sample are determined alternately in the ratio of 1 ∶ 3. The U ⁃ th ⁃ Pb isotope ratio was corrected with the standard zircon pl é sovice (337 Ma, SL á Ma et al., 2008), and the standard sample Qinghu (159.5 Ma, Li et al., 2009) was used as the accuracy of the monitoring data of the unknown sample. The isotopic ratio and age error are all 1 σ。 The data results are processed by isoplot software (Ludwig, 2001). On the basis of zircon u ⁃ Pb dating, select the age point with good harmony, and delineate the Hf isotope point in the micro area consistent with the ring trend of the age point. Zircon Hf isotope analysis is carried out on Neptune Plusma II multi receiver plasma mass spectrometer and nwr193uc 193 nm laser sampling system. See Liu et al. (2008) for detailed steps of the instrument. The diameter of laser ablation spot beam is generally 60 μ m. Each measuring point includes 10 s pre denudation, 45 s denudation and 30 s cleaning time. During the sample test, 91500 is taken as the standard sample, and its 176hf / 177hf = 0.282 286 ± 12 (2 σ， n = 21）。

2、Keywords

Theme：Geochemistry,Tectonics,Suture belt,LA-ICP-MS,Sr-Nd-Hf isotope
Discipline：Solid earth
Places：Eastern Tibet
Time：Paleotethys

3、Data details

1.Scale：None

2.Projection：

3.Filesize：1.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：30.0 | - |
| west：98.0 | - | east：99.0 |
| - | south：28.0 | - |

5、Time frame:None--None

6、Reference method

References to data:

WANG Shifeng. Zircon U-Pb dating and Hf isotope data of granite in eastern Tibet. A Big Earth Data Platform for Three Poles, doi:10.11888/SolidEar.tpdc.2721882022

References to articles:

Wang, S., Fu, X., Liu, Y., Fan, S., Wang, J., & Wu, Z. (2021). Bitu ophiolite in eastern Tibet: The last piece of the jigsaw puzzle in the Paleotethyan regime along the eastern Cimmerian continental margin. Lithos 406–407, 106520.

7、Supporting project information

Catastrophic mechanisms and risk control of disastrous landslides in the Tibetan Plateau

8、Data resource provider

name: WANG Shifeng
unit: a. Institute of Geomechanics, Chinese Academy of Geological Sciences
email: 948117360@qq.com