A Big Earth Data Platform for Three Poles

**Cathodoluminescence images (CL images) data set of detrital zircons from sandstone of Late Carboniferous-Late Permian strata in the Southern Qiangtang terrane and Early Cretaceous Hauterivian-Albian strata in the Bangong‐Nujiang suture zone, Tibetan Plateau.**

1、Description

This data set includes cathodoluminescence images (CL images) of detrital zircons from sandstone of Late Carboniferous-Late Permian strata in the Southern Qiangtang terrane and Early Cretaceous Hauterivian-Albian strata in the Bangong‐Nujiang suture zone, Tibetan Plateau. The sampling and shooting time is 2018-2019. The sampling areas of Late Carboniferous-Late Permian strata are Jiaco and Ritu areas of the Southern Qiangtang terrane. The sampling areas of Early Cretaceous Hauterivian-Albian strata are Baerqiao, Mabujiaco, Duochang and Kama areas of the Bangong‐Nujiang suture zone. CL images were taken in the Continental Dynamics Laboratory, Chinese Academy of Geological Sciences, Beijing, China These data provide a key limit for understanding the closing of the Bangong‐Nujiang suture zone. The opening time of Bangong‐Nujiang Ocean is limited to 300-279Ma, and the closing time is limited to 110-100 Ma, which is of great significance to explore the tectonic evolution of Tethys Ocean. The related articles of the data set have been published in the well-known journals《Palaeogeography, Palaeoclimatology, Palaeoecology》,《Tectonics》,《Geoscience Frontiers》, and the data results are true and reliable.

2、Keywords

Theme：Rocks/Minerals,Cathodoluminescence,Bangong-Nujiang suture zone,Tectonics
Discipline：Solid earth
Places：Tibet, Southern Qiangtang terrane, Bangong-Nujiang suture zone
Time：Paleozoic, Mesozoic

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：400.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：32.0 | - |
| west：80.0 | - | east：92.0 |
| - | south：30.0 | - |

5、Time frame:2018-11-01 16:00:00+00:00--2020-12-01 16:00:00+00:00

6、Reference method

References to data:

FAN Jianjun. Cathodoluminescence images (CL images) data set of detrital zircons from sandstone of Late Carboniferous-Late Permian strata in the Southern Qiangtang terrane and Early Cretaceous Hauterivian-Albian strata in the Bangong‐Nujiang suture zone, Tibetan Plateau.. A Big Earth Data Platform for Three Poles, doi:10.11888/Geo.tpdc.2718172021

References to articles:

Luo, A.B., Fan, J.J., Hao, Y.J., Li, H., & Zhang, B.C. (2020). Aptian flysch in central Tibet:constraints on the timing of closure of the Bangong-Nujiang Tethyan Ocean. Tectonics,39(12), e2020TC006198. https://doi.org/10.1029/2020TC006198.

Luo, A.B., Fan, J.J., Zhang, B.C., Zhang, J.Z., Li, H., & Duan, M.L., (2021). From arc-continent collision to ocean closure: Lower Cretaceous Shamuluo Formation in the western segment of the Bangong–Nujiang suture zone, central Tibet. Geoscience Frontiers, 12, 101207. https://doi.org/10.1016/j.gsf.2021.101207.

Fan, J.J., Niu, Y.L., Luo, A.B., Xie, C.M., Hao, Y.J., & Liu, H.Y. (2021). Timing of the Meso-Tethys Ocean opening: evidence from Permian sedimentary provenance change in the southern Qiangtang Terrane, Tibetan. Palaeogeography,Palaeoclimatology,Palaeoecology, 567.https://doi.org/10.1016/j.palaeo.2021.110265.

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

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