A Big Earth Data Platform for Three Poles

**Petrogenesis and tectonic implications of Late Cretaceous highly fractionated I-type granites from the Qiangtang block, central Tibet.**

1、Description

The collision of Lhasa Qiangtang terrane and its subsequent tectonic evolution are considered to be the most important event in the Tibetan Plateau before the Cenozoic India Asia collision. In view of this scientific problem, through the study of the late Cretaceous granite in Anduo area of Qiangtang terrane, the following achievements and understandings have been obtained. Zircon U-Pb geochronology, major and trace geochemistry and Sr Nd isotopic analysis have been carried out for the chuburi granite. The zircon U-Pb results of the two samples show that they were formed at 73-74 ma. The geochemical data show that the magmatic rocks have high contents of SiO2, K2O, Na2O, Al2O3 and total alkali, belonging to the high-k calc alkaline granite series. The normalized REE map of chondrite and the normalized trace element map of primitive mantle show that the magmatic rocks are characterized by enrichment of LREE and hree, enrichment of large ion lithophile elements and depletion of high field strength elements. Based on the analysis of petrological, petrographic and geochemical data, combined with the regional geological data, it is considered that the chuburi magmatic rock was formed by different degrees of mixed melt of mantle derived magma and lower crust derived melt, and then experienced the obvious separation and crystallization process of potash feldspar, plagioclase and other minerals. The formation of chuburi magmatic rocks is related to the delamination of lithosphere after the collision of Lhasa Qiangtang terrane

2、Keywords

Theme：collision event,Geochemistry,Tectonics,Ziron U-Pb dating,Isotopic geochemistry
Discipline：Solid earth
Places：Tibet
Time：Late Cretaceous

3、Data details

1.Scale：None

2.Projection：

3.Filesize：0.13MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：32.3 | - |
| west：91.0 | - | east：91.6 |
| - | south：32.0 | - |

5、Time frame:None--None

6、Reference method

References to data:

HE Haiyang. Petrogenesis and tectonic implications of Late Cretaceous highly fractionated I-type granites from the Qiangtang block, central Tibet.. A Big Earth Data Platform for Three Poles, doi:10.1016/j.jseaes.2019.02.0222021

References to articles:

He, H., Li, Y., Wang, C., Han, Z., Ma, P., & Xiao, S. (2019). Petrogenesis and tectonic implications of late cretaceous highly fractionated itype granites from the qiangtang block, central tibet. Journal of Asian earth sciences, 176(JUN.1), 337-352.

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

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