A Big Earth Data Platform for Three Poles

**Integrated provenance analysis data from the Huaitoutala section in the NE Qaidam Basin**

1、Description

The development history of high topography in the northeastern (NE) Tibetan Plateau is essential to test various plateau growth models and understand plateau construction. We present integrated provenance data from the NE Qaidam Basin, south of the Qilian Shan. Results show an increase in carbonate lithics, an increase in Al2O3/SiO2 ratios, a negative shift in εNd values and an appearance of large amounts of Precambrian zircon grains in the period of ~13 to ~8 Ma, arguing that the sediment source of the NE Qaidam Basin may have shifted from the East Kunlun Shan to the Qilian Shan during this time interval. We infer that significant topographic growth of the southern Qilian Shan occurred during the middle-late Miocene. Along with widespread middle to late Miocene deformation records across the Qilian Shan and abruptly shifts on provenance, sedimentary facies and climate indexes in its surrounding basins, present high topography of the NE Tibetan Plateau may have been established since the middle-late Miocene.

2、Keywords

Theme：neotectonics,Tectonics
Discipline：Solid earth
Places：Huaitoutala section, Integrated provenance analysis, Qilian Shan, NE Tibetan Plateau, Qaidam Basin
Time：Middle-late Miocene

3、Data details

1.Scale：None

2.Projection：

3.Filesize：0.6MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：37.5 | - |
| west：96.6 | - | east：96.9 |
| - | south：37.1 | - |

5、Time frame:None--None

6、Reference method

References to data:

LI Chaopeng, ZHENG Dewen. Integrated provenance analysis data from the Huaitoutala section in the NE Qaidam Basin. A Big Earth Data Platform for Three Poles, doi:10.11888/Geo.tpdc.2716272021

References to articles:

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

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