A Big Earth Data Platform for Three Poles

**Chemical weathering and erosion data of Lunpola-Wuyu-Bangor Basin**

1、Description

Clay minerals are the weathering products of the parent rocks, which was formed by a series of chemical processes under a specific climate, and they are also widely-used indicators to reconstruct the history of the regional paleochemical weathering process. In this study, we present a detailed mineralogical investigation of 76 clay samples collected from the Lunpori section (21-15 Ma) in the Lunpola Basin by using X-ray diffraction. The results show that illite-smectite mixed layers, illite, chlorite, and kaolinite are the common clay mineral types in this section. The illite-smectite mixed layers and illite are the most abundant ones, which account for 80-90% of the total clay content; while the content of kaolinite and chlorite is relatively low, only occupying ~10-20% of the total clay minerals. The variations of clay mineral content are relatively stable in the Lunpori section, thus indicating that the intensity of regional chemical weathering was less variable during this period.

2、Keywords

Theme：Marine Sediments  
Discipline：Palaeoenvironment  
Places：Lunpola Basin  
Time：Miocene

3、Data details

1.Scale：None

2.Projection：

3.Filesize：0.01MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：31.9 | - |
| west：89.6 | - | east：89.7 |
| - | south：31.8 | - |

5、Time frame:None--None

6、Reference method

References to data:

YE Chengcheng. Chemical weathering and erosion data of Lunpola-Wuyu-Bangor Basin. A Big Earth Data Platform for Three Poles, doi:10.11888/Paleoenv.tpdc.2709892020

References to articles:

7、Supporting project information

Pan-Third Pole Environment Study for a Green Silk Road-A CAS Strategic Priority A Program

8、Data resource provider

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