A Big Earth Data Platform for Three Poles

**Chronological and environmental index data set of Wenchuan loess profile in Western Sichuan Plateau**

1、Description

This data is the chronological, grain size and bulk density data of loess-paleosol sequence in Wenchuan (WCH) in the eastern Tibetan Plateau. We measured the median grain size and bulk density data of the profile (10m) at intervals of 2.5cm and 5cm respectively. The OSL dating experiment was carried out in the Luminescence Dating Laboratory of the Key Laboratory of Western China’s Environmental Systems (Ministry of Education) in Lanzhou University. AMS 14C measurements were carried out at Peking University. The experimental analysis of environmental indicators was also completed at the Key Laboratory of Western China’s Environmental Systems (Ministry of Education) in Lanzhou University. The OSL ages were determined by an automated Risø TL/OSL DA-20 reader. The grain size data were measured by a Malvern Mastersizer 2000 laser diffractometer; the bulk density data were determined by the oil-soaked method. This data provides the detailed chronological data of loess-paleosol sequence and the variation characteristics of grain size and bulk density since the last glacial period in the eastern Tibetan Plateau, and provides an important data reference for understanding paleoclimate evolution and dust accumulation history in the eastern Tibetan Plateau.

2、Keywords

Theme：Optically stimulated luminescence dating,Grain size,bulk density,Paleoclimate Reconstruction
Discipline：Palaeoenvironment
Places：Western Sichuan Plateau
Time：Last glaciation

3、Data details

1.Scale：None

2.Projection：

3.Filesize：1.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：31.45 | - |
| west：103.57 | - | east：103.57 |
| - | south：31.45 | - |

5、Time frame:None--None

6、Reference method

References to data:

XIA Dunsheng, YANG Shengli, CHEN Zixuan, LIU Li. Chronological and environmental index data set of Wenchuan loess profile in Western Sichuan Plateau. A Big Earth Data Platform for Three Poles, doi:10.11888/Paleoenv.tpdc.2718072021

References to articles:

7、Supporting project information

Pan-Third Pole Environment Study for a Green Silk Road-A CAS Strategic Priority A Program
Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

name: XIA Dunsheng
unit: Lanzhou University
email: dsxia@lzu.edu.cn

name: YANG Shengli
unit: Lanzhou University
email: shlyang@lzu.edu.cn

name: LIU Li
unit:
email: liuli2019@lzu.edu.cn

name: CHEN Zixuan
unit:
email: chenzx19@lzu.edu.cn