A Big Earth Data Platform for Three Poles

**Data set of surface dust properties in high mountain and canyon area of Hengduan Mountain**

1、Description

This data is the set of surface dust properties in high mountain and canyon area of Hengduan Mountain, including magnetic data and geochemical data. The analysis of magnetic susceptibility and geochemical elements was completed at the Key Laboratory of Western China's Environmental Systems (Ministry of Education), Lanzhou University, China. The magnetic susceptibility was measured by Bartington MS2 magnetic susceptibility meter. The geochemical elements were measured by PW2403 X-ray fluorescence spectrometer (XRF) produced by Philips in the Netherlands. This data provides the characteristics of magnetic susceptibility and geochemical elements of topsoil in the eastern Tibetan Plateau, which plays an important role in understanding the relationship between modern climate factors and magnetic susceptibility of topsoil in the eastern TP, and the source of dust source area, dust transport and atmospheric circulation model in the TP.

2、Keywords

Theme：Major element,magnetic properties,Paleoclimate Reconstruction,Trace element
Discipline：Terrestrial Surface,Palaeoenvironment
Places：eastern Tibetan Plateau
Time：modern

3、Data details

1.Scale：None

2.Projection：

3.Filesize：1.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：37.0 | - |
| west：97.0 | - | east：103.0 |
| - | south：25.0 | - |

5、Time frame:None--None

6、Reference method

References to data:

XIA Dunsheng, LUO Yuanlong, YANG Shengli, LI Qiong. Data set of surface dust properties in high mountain and canyon area of Hengduan Mountain. A Big Earth Data Platform for Three Poles, doi:10.11888/Paleoenv.tpdc.2718102021

References to articles:

陈慧, 杨胜利, 成婷, 等. (2018). 青藏高原东部表土磁化率特征与环境意义. 冰川冻土, 40(6), 1187-1194.

Yang, S.L, Luo, Y.L., Li, Q., Liu, W.M, Chen, Z.X, Liu, L., & Liu, X.J. (2021). Comparisons of topsoil geochemical elements from Northwest China and eastern Tibetan Plateau identify the plateau interior as Tibetan dust source. Science of The Total Environment 798, 149240.

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

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