A Big Earth Data Platform for Three Poles

**Dataset on the evolution pattern and development trend of the arid environment since 3600 kyr BP in Western China**

1、Description

The project studying the evolution pattern and development trend of the arid environment in western China was a major research component of the project Environmental and Ecological Science for West China, which was funded by the National Natural Science Foundation of China. The leading executive of the project was Academician Zhisheng An from the Institute of Earth Environment of the Chinese Academy of Sciences. The project ran from January 2002 to December 2004.  
The data collected by the project include the following:  
1. History and variability data for arid regions in western China:  
1) Chinese Loess Plateau mass accumulation rate data (3600-0 kyr BP): Fields include age and mass accumulation rate (MAR) (txt file).  
2) Chinese Loess Plateau grain size and magnetic susceptibility data (3600-0 kyr BP): Fields include age, stacked mean grain size, and stacked magnetic susceptibility (txt file).  
2. Sporopollen content data of different loess strata since 12 kyr BP in the Yaozhou District of Shanxi Province (excel table): The distributions of 27 species of sporopollen (0-397 cm) from 67 different layers of loess samples are included.  
3. 10Be record data (table)  
10Be concentration, magnetic susceptibility and bulk density data of loess with different thicknesses (79.67- 0.09 kyr BP).  
4. Simulation data on the modulation of the East Asian monsoon resulting from orbital variability driven by the uplift of the Tibetan Plateau: ah0-sum.nc nc file, hh0-sum.nc nc file, jfh0-sum.nc nc file, kdh0-sum.nc nc file, lfh0-sum.nc nc file, mask.nc nc file, phis.nc nc file.

2、Keywords

Theme：Soil,Pollen,Soil bulk density,Paleoclimate Reconstruction  
Discipline：Terrestrial Surface,Palaeoenvironment  
Places：Tibetan Plateau , Loess Plateau, Western China  
Time：Holocene, Pliocene, Pleistocene

3、Data details

1.Scale：None

2.Projection：

3.Filesize：107.0MB

4.Data format：文本

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：49.36 | - |
| west：73.45 | - | east：111.2 |
| - | south：20.9 | - |

5、Time frame:2002-01-09 08:00:00+00:00--2005-01-08 08:00:00+00:00

6、Reference method

References to data:

AN Zhisheng. Dataset on the evolution pattern and development trend of the arid environment since 3600 kyr BP in Western China. A Big Earth Data Platform for Three Poles, doi:10.11888/Paleoenv.tpdc.2700932012

References to articles:

Sun, Y., and An, Z.S., (2006). Chinese Loess Plateau Mass Accumulation Rate Data.IGBP PAGES/World Data Center for Paleoclimatology, Data Contribution Series 2006-034.NOAA/NCDC Paleoclimatology "Program,"Boulder CO, USA.  
  
Sun, Y., et al. (2006). Chinese Loess Plateau Grain Size and Magnetic Susceptibility Data. IGBP PAGES/World Data Center for Paleoclimatology. Data Contribution series 2006-035. NOAA/NCDC Paleoclimatology "Program, Boulder CO, USA.  
  
Zhou, W.J., Priller, A., Beck, J., Wu, Z.K., Chen, M.B., & An, Z.S., et al. (2007). DISENTANGLING GEOMAGNETIC AND PRECIPITATION SIGNALS IN AN 80-KYR CHINESE LOESS RECORD OF 10Be. RADIOCARBON, 49(1), 139–160.

7、Supporting project information

8、Data resource provider

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