A Big Earth Data Platform for Three Poles

**Prehistoric human activities in Kona basin, northeastern Qinghai Tibet Plateau and their environmental background to Lake Cuona in winter**

1、Description

In the dense area of stone products exposed to the ground, five different sizes (about 2 × 3 m). The stone materials are collected and analyzed in detail by using technology typology. In addition, it has a tetrahedral selection of 1.2 × 5 m of soil and 10 cm of topsoil were removed. These 10 – 50 cm soil samples were screened by wet sieving at 2 cm intervals, and the residues found in each layer were counted. At the same time, the djcn 3-2-2 profile (No. 1-10) exposed and scattered on the ground of the study area was measured and excavated on ten hearth. The profile was collected from local sedimentary strata about 2 m southeast of the site. The section is about 100 cm thick. According to the lithology and color of the sediments, two main stratigraphic units are identified. Between 0 and 90cm, the stratum is composed of light yellow loess, where there are two buried cultural layers rich in charcoal. 24 – 28 cm and 30 – 32 cm, respectively; In the lower layer of D, 90-100 cm depth is blue gray lacustrine sediments. 45 samples were collected at 2 cm intervals along the cross section for measuring particle size, magnetic susceptibility, pollen, charcoal and fungal spores; Three charcoal samples (djcn 3-2-2c1) were collected from the furnace and burned soil in the field, and djcn 3-2-2c2 and djcn 3-2-2c3 from the burned soil (No. 5 and No. 8 hearth) were collected from AMS14C dating of beta analytical company in Miami, Florida, USA. AMS14C dates were further converted to calendar year values by using the intcal 13 calibration curve of calib Rev 7.0.2 program (stuiver and Reimer, 1993) (reimeret et al., 2013). Physical geography and environmental process of Qinghai Normal University. Spectrometer (ICP-MS). The unexposed middle part was used to measure the equivalent dose (DE). We also use automatic RIS ø The OSL measurements were obtained by TL / osl-da-20-c / dreamer. 90Sr / 90Y beta light source was used in the laboratory. Sample preparation included treatment with HCl (10%) and H2O2 (30%) respectively to remove organic matter and carbonate. Select 38 to 63 by wet sieving µ And treated with H2SiF6 for about 2 weeks. Water content 10 ± 5% to calculate age (stauch et al., 2012). The particle size and magnetic susceptibility were measured in the Key Laboratory of physical geography and environmental process of Qinghai Province, Qinghai Normal University. Standard processes were used for particle size analysis, including removing carbonate and organic matter with HCl (10%) and H2O2 (10%), respectively, and treating dispersant with 10 ml of 10% (NaPO3) 6 and shaking with an ultrasonic cleaning machine to fully disperse the particles (Lu and an, 1997). Susceptibility was analyzed with MS2 dual frequency susceptibility meter produced by bartington, UK. The low frequency magnetic susceptibility is obtained by calculating the difference between the average of three low frequency magnetic susceptibility values and the average of two background values. The fungal spores, charcoal and pollen samples were treated with HF (faegri and Iversen, 1989; Moore et al., 1991). The samples were boiled in 10% HCl and 10% KOH to dissolve calcium minerals and humus. The sample is then passed through 200 µ M sieve, and treated with 40% HF to digest the fine silica. Next, pass the sample through 7 µ M screen to remove clay sized particles. Finally, the samples were stored and fixed in glycerol jelly. Pollen and fungal spores were identified at 400 and 1000 magnification. The identification of fungal spore morphotypes is based on comparison with the descriptions and illustrations of van geel (1978), van geel et al（ Pollen and fungal spores of van.300 were recorded for each sample and expressed as a percentage of the total content. Pollen and fungi were first isolated by adding Lycoris radiata spores (27637 ± 563 spores) to calculate spore concentration values, and then use Tilia and Tilia graph software to make charts (Grimm, 2011). Charcoal was counted and divided into two types, namely 20 – 100 µ M and > 100 µ m。

2、Keywords

Theme：Marine Sediments
Discipline：Palaeoenvironment
Places：Donggi Cona Lake, Northeastern part of qinghai-tibet plateau
Time：1.7 million years ago - 21st century AD

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：2.07MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：35.83 | - |
| west：98.33 | - | east：98.75 |
| - | south：35.22 | - |

5、Time frame:None--None

6、Reference method

References to data:

HOU Guangliang. Prehistoric human activities in Kona basin, northeastern Qinghai Tibet Plateau and their environmental background to Lake Cuona in winter. A Big Earth Data Platform for Three Poles, doi:10.11888/Paleoenv.tpdc.2712722021

References to articles:

7、Supporting project information

8、Data resource provider

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