A Big Earth Data Platform for Three Poles

**WATER: Dataset of ground truth measurements synchronizing with ASTER in the Linze grassland foci experimental area on May 28, 2008**

1、Description

The dataset of ground truth measurements synchronizing with ASTER was obtained in the saline plot B, the alfalfa plot D and the barley plot E of the Linze grassland foci experimental area on May 28, 2008. 49 points at intervals of 60m in each plot (360m×360m) were selected and observation items included:  
 (1) the land surface radiative temperature by the hand-held infrared thermometer from east to west in the saline plot B, the alfalfa plot D and the alfalfa plot E. Each point was numbered, such as D22-23, indicating from No. 22 to 23 in the alfalfa plot D. In the salineplot B, 5 measurements were carried out each 5m; in the alfalfa plot D and the barley plot E, measurements were at random. Calibration information was archived in the hand-held infrared thermometer calibration.xls.  
 (2) soil gravimetric moisture, volumetric moisture, and soil bulk density after drying measured by the cutting ring and the mean soil temperature from 0-5cm measured by the probe thermometer in plot B; the soil temperature, soil moisture, the loss tangent, soil conductivity, the real part and the imaginary part of soil complex permittivity measured by the POGO soil sensor, and the mean soil temperature from 0-5cm measured by the probe thermometer in plot D; soil moisture, soil conductivity, the soil temperature, and the real part of soil complex permittivity were measured by WET, and the mean soil temperature from 0-5cm by the probe thermometer in plot E.  
 Six Excel files on soil moisture and the land surface radiative temperature in plot B, D and E were archived. See WATER: Dataset of setting of the sampling plots and stripes in the foci experimental area of Linze station for more information.

2、Keywords

Theme：Electrical conductivity,Soil,Surface radiation temperature,Earth SurFace Processes,Soil temperature,Remote Sensing Technology,Soil bulk density,Visible remote sensing,Soil moisture/Water content  
Discipline：Terrestrial Surface,Remote Sensing Technology  
Places：Heihe River Basin, Arid Region Hydrology in the Middle Reaches,   
Time：2008,

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：0.36MB

4.Data format：EXCEL

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：39.268 | - |
| west：100.037 | - | east：100.095 |
| - | south：39.225 | - |

5、Time frame:2008-06-10 16:00:00+00:00--2008-06-10 16:00:00+00:00

6、Reference method

References to data:

HAO Xiaohua, CAO Yongpan, WANG Shuguo, LIANG Ji, HAN Xujun, WU Yueru, CHAO Zhenhua, GE Chunmei, FENG Lei, YU Fan, MA Mingguo, HUANG Chunlin. WATER: Dataset of ground truth measurements synchronizing with ASTER in the Linze grassland foci experimental area on May 28, 2008. A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0058.db2013

References to articles:

7、Supporting project information

The CAS (Chinese Academy of Sciences) Action Plan for West Development Project  
National Program on Key Basic Research Project (973 Program

8、Data resource provider

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