A Big Earth Data Platform for Three Poles

**WATER: Dataset of ground truth measurements synchronizing with Envisat ASAR in the Linze grassland foci experimental area on May 24, 2008**

1、Description

The dataset of ground truth measurements synchronizing with Envisat ASAR 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 24, 2008.
 The data were in AP mode and VV/VH polarization combinations, and the overpass time was approximately at 11:34 BJT. The quadrate was divided into 6×6 subsites, with each one spanning a 120×120 m2 plot. Corner points were chosen.
 Simultaneous with the satellite overpass, numerous ground data were collected, soil gravimetric moisture, volumetric moisture, and soil bulk density after drying by the cutting ring (100cm^3), the mean soil temperature from 0-5cm by the probe thermometer, and the land surface radiative temperature measured three times by the hand-held infrared thermometer in plot B; soil moisture, soil conductivity, the soil temperature, and the real part of soil complex permittivity by WET, the mean soil temperature from 0-5cm by the probe thermometer, and the land surface radiative temperature measured three times by the hand-held infrared thermometer in plot D; the soil temperature, soil moisture, the loss tangent, soil conductivity, the real part and the imaginary part of soil complex permittivity by the POGO soil sensor, the mean soil temperature from 0-5cm by the probe thermometer, and the land surface radiative temperature measured three times by the hand-held infrared thermometer in plot E.
 Data were archived in Excel file. Those provide reliable ground data for retrieval and validation of soil moisture and alinity content with active microwave remote sensing approaches.
 See WATER: Dataset of setting of the sampling plots and stripes in the Linze station foci experimental area for more information.

2、Keywords

Theme：Soil,Surface radiation temperature,Earth SurFace Processes,Soil moisture/Water content,Terrestrial Surface Remote Sensing,Ground verification information
Discipline：Terrestrial Surface
Places：Heihe River Basin, Arid Region Hydrology in the Middle Reaches,
Time：2008,

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：76.9MB

4.Data format：EXCEL

4、Space scope

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

5、Time frame:2008-06-07 16:00:00+00:00--2008-06-07 16:00:00+00:00

6、Reference method

References to data:

TANG Bohui, LIU Zhaoyan, WANG Xiaoping, CHAO Zhenhua, HAN Hui, Wang Weizhen, HU Xiaoli, LIANG Ji. WATER: Dataset of ground truth measurements synchronizing with Envisat ASAR in the Linze grassland foci experimental area on May 24, 2008. A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0056.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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