A Big Earth Data Platform for Three Poles

**WATER: Dataset of ground truth measurement synchronizing with ALOS PALSAR in the Linze grassland foci experimental area on Jun. 27, 2008**

1、Description

The dataset of ground truth measurement synchronizing with ALOS PALSAR was obtained in the Linze grassland foci experimental area on Jun. 27, 2008.  
 The data were in FBD mode and HH/HV polarization combinations, and the overpass time was approximately at 23:41 BJT. Observations were carried out in the reed plot A, the saline plot B, the alfalfa plot D and the barley plot E, which were divided into 6×6 subsites, with each one spanning a 120×120 m2 plot. Soil gravimetric moisture, volumetric moisture, and soil bulk density after drying by the cutting ring and the mean soil temperature from 0-5cm by the probe thermometer were measured in A and B; 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 soil gravimetric moisture, volumetric moisture, and soil bulk density after drying by the cutting ring in D and E.  
 Data were archived in Excel file. 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,Soil temperature,Soil bulk density,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：2008-06-27, 2008

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：3996.8MB

4.Data format：EXCEL

4、Space scope

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

5、Time frame:2008-07-08 08:00:00+00:00--2008-07-08 08:00:00+00:00

6、Reference method

References to data:

WANG Xufeng, WU Yueru, GE Chunmei, WANG Jing. WATER: Dataset of ground truth measurement synchronizing with ALOS PALSAR in the Linze grassland foci experimental area on Jun. 27, 2008. A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0069.db2013

References to articles:

Wang SG, Li X, Han XJ, Jin R. Estimation of surface soil moisture and roughness from multi-angular ASAR imagery in the Watershed Allied Telemetry Experimental Research (WATER). Hydrology and Earth System Sciences, 2011, 15(5): 1415-1426. doi:10.5194/hess-15-1415-2011.

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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