A Big Earth Data Platform for Three Poles

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

1、Description

The dataset of ground truth measurements synchronizing with Envisat ASAR and ALOS PALSAR was obtained in the Linze station 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. Observation items included:  
 (1) soil moisture (0-5cm) measured once by cutting ring method at corner points of the 40 subplots of the west-east desert transit zone strip, one time by cutting ring method in nine subplots of the north-south desert transit zone, strip and once by the cutting ring and three times by ML2X Soil Moisture Tachometer in the center points of nine subplots of Wulidun farmland quadrates . The preprocessed soil volumetric moisture data were archived as Excel files.  
 (2) surface radiative temperature by measured two handheld infrared thermometer (5# and 6# from Cold and Arid Regions Environmental and Engineering Research Institute which were both calibrated) in 40 subplots of the west-east desert transit zone strip (repeated 14-30 times each), and nine subplots of the north-south desert transit zone strip (repeated 12-30 times). There are 34 sample points in total and each was repeated three times synchronizing with the airplane. Photos were taken. Data were archived as Excel files.  
 (3) LAI, the plant height and the spacing measured by the ruler and the set square in Wulidun farmland quadrates and Linze station quadrates. Part of the samples were also measured by LI-3100. Data were archived as Excel files.  
 See the metadata record “WATER: Dataset of setting of the sampling plots and stripes in the Linze station foci experimental area” for more information of the quadrate locations.

2、Keywords

Theme：Soil,Microwave remote sensing,Surface radiation temperature,Leaf area index,Vegetation,Earth SurFace Processes,Surface Freeze-thaw Cycle/state Remote Sensing,Soil moisture/Water content  
Discipline：Terrestrial Surface,Cryosphere  
Places：Heihe River Basin, Arid Region Hydrology in the Middle Reaches, Closed observation area of Linze station  
Time：2008,

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：593.9MB

4.Data format：文本

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：39.379 | - |
| west：100.11 | - | east：100.201 |
| - | south：39.311 | - |

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:

BAI Yanfen, LI Jing, ZHU Shijie, SUN Jinxia, XIAO Zhiqiang, PAN Xiaoduo, DING Songchuang, WANG Yang. WATER: Dataset of ground truth measurements synchronizing with Envisat ASAR and ALOS PALSAR in the Linze station foci experimental area on May 24, 2008. A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0097.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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