A Big Earth Data Platform for Three Poles

**WATER: Dataset of ground truth measurement synchronizing with the airborne microwave radiometers (L&K bands) mission in the Biandukou foci experimental area on Mar. 19, 2008**

1、Description

The dataset of ground truth measurement synchronizing with the airborne microwave radiometers (L&K bands) was obtained in the Biandukou foci experimental area from 11:20 to 12:30BJT on Mar. 19, 2008. Observation items included:  
 (1) the frost depth by the chopstick and the ruler. The soil was considered frozen when it was hard and with ice crystal. The data can be opened by Microsoft Office Word.  
 (2) the surface radiative temperature by the handheld infrared thermometer and the physical temperature by the thermocouple. The data can be opened by Microsoft Office Word.  
 (3) the soil moisture (soil samples from 0-1cm, 1-3cm and 3-5cm) by the microwave drying method. The data can be opened by Microsoft Office Word.  
 (4) photos of each sampling point in .jpg for further reference.  
 Six data files were included, the ground-based K-band microwave radiometer, the ground-based L-band microwave radiometer, the frost depth, soil moisture, the surface temperature and the surface conditions.

2、Keywords

Theme：Soil,Depth of soil freezing,Surface radiation temperature,Earth SurFace Processes,Remote Sensing Technology,Microwave radiometer,Soil moisture/Water content  
Discipline：Terrestrial Surface,Remote Sensing Technology  
Places：Heihe River Basin, the cold region hydrology experimental area in the upper reaches, closed observation area of Biandoukou  
Time：2008,

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：262.9MB

4.Data format：

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.312 | - |
| west：100.881 | - | east：101.036 |
| - | south：38.192 | - |

5、Time frame:2008-04-05 00:00:00+00:00--2008-04-05 00:00:00+00:00

6、Reference method

References to data:

PAN Jinmei, CHANG Sheng, YIN Xiaojun, ZHANG Zhiyu, LIU Zhigang, REN Huazhong, LIANG Xingtao, ZHENG Yue, CHE Tao, ZHAO Shaojie, Zhou Ji, QU Ying, PENG Danqing, Zhao Tianjie, ZHANG Yongpan, LIU Chenzhou, Fang Qian. WATER: Dataset of ground truth measurement synchronizing with the airborne microwave radiometers (L&K bands) mission in the Biandukou foci experimental area on Mar. 19, 2008. A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0029.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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