A Big Earth Data Platform for Three Poles

**WATER: Dataset of ground truth measurements synchronizing with MODIS in the Biandukou foci experimental area on Mar. 14, 2008**

1、Description

The dataset of ground truth measurements synchronizing with MODIS was obtained in C1, W2 and B2 of the Biandukou foci experimental area from 12:00-15:00 on Mar. 14, 2008. Observation items included:
 (1) the frost depth from 11:37-12:11 by the chopstick and the ruler. The soil was considered frozen when it was hard and with ice crystal. The cover type photos were archived.
 (2) the gravimetric soil moisture (soil samples from 0-1cm, 1-3cm, 3-5cm, 5-10cm and 10-20cm) by the microwave drying method.
 (3) the surface radiative temperature by the handheld infrared thermometer and the physical temperature by the thermocouple thermometer.
 (4) the soil roughness, which can be acquired from related dataset of other period.

2、Keywords

Theme：Near infrared remote sensing,Soil,Depth of soil freezing,Surface radiation temperature,Earth SurFace Processes,Remote Sensing Technology,Visible remote sensing,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：2.03MB

4.Data format：

4、Space scope

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

5、Time frame:2008-03-28 16:00:00+00:00--2008-03-28 16:00:00+00:00

6、Reference method

References to data:

PAN Jinmei, CHANG Sheng, YIN Xiaojun, ZHANG Zhiyu, LIU Zhigang, REN Huazhong, LIANG Xingtao, ZHENG Yue, ZHAO Shaojie, Zhou Ji, QU Ying, PENG Danqing, Zhao Tianjie, ZHANG Yongpan, LIU Chenzhou, Fang Qian. WATER: Dataset of ground truth measurements synchronizing with MODIS in the Biandukou foci experimental area on Mar. 14, 2008. A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0027.db2013

References to articles:

周纪, 李京, 张立新. 针对MODIS数据的地表温度反演算法检验－以黑河流域上游为例. 冰川冻土, 2009, 31(2): 239-246.

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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