A Big Earth Data Platform for Three Poles

**WATER: Dataset of ground truth measurement synchronizing with PROBA CHRIS in the A'rou foci experimental area on Jun. 23, 2008**

1、Description

The dataset of ground truth measurement synchronizing with PROBA CHRIS was obtained in No. 2 and 3 quadrates of the A'rou foci experimental area on Jun. 23, 2008. Observation items included:  
 (1) quadrates investigation including GPS by GARMIN GPS 76, plant species by manual cognition, the plant number by manual work, the height by the measuring tape repeated 4-5 times, phenology by manual work, the coverage by manual work (compartmentalizing 0.5m×0.5m into 100 to see the percentage the stellera takes) and the chlorophyll content by SPAD 502. Data were archived in Excel format.   
 (2) roughness by the self-made roughness board and the camera. The processed data were archived as .txt files.  
 (3) BRDF by ASD FieldSpec (350～2 500 nm), with 20% reference board and the observation platform made by Beijing Normal University. The processed reflectance and transmittivity were archived as .txt files.   
 (4) LAI of stellera and pasture by the fisheye camera (CANON EOS40D with a lens of EF15/28), shooting straight downwards, with exceptions of higher plants, which were shot upwards. Data included original photos (.JPG) and those processed by can\_eye5.0 (in Excel). For more details, see Readme file.  
 Five files were included, spectrum in No.2 quadrate, multiangle observations in No.2 and 3 quadrates, roughness photos in No.2 and 3 quadrates, the fisheye camera observations, and the No.2 and 3 quadrates investigation.

2、Keywords

Theme：Gravity,Leaf area index,Surface Roughness,Vegetation,Chlorophyll,Vegetation cover,Terrestrial Surface Remote Sensing,Ground verification information  
Discipline：Terrestrial Surface,Solid earth  
Places：Heihe River Basin, the cold region hydrology experimental area in the upper reaches, A'rou flight zone  
Time：2008,

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：514.1MB

4.Data format：

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.078 | - |
| west：100.411 | - | east：100.55 |
| - | south：38.015 | - |

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

6、Reference method

References to data:

HAO Xiaohua. WATER: Dataset of ground truth measurement synchronizing with PROBA CHRIS in the A'rou foci experimental area on Jun. 23, 2008. A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0009.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

name: HAO Xiaohua  
unit: Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences  
email: haoxh@lzb.ac.cn