A Big Earth Data Platform for Three Poles

**WATER: Dateset of spectral reflectance observations in the Biandukou foci experimental area**

1、Description

The dateset of spectral reflectance observations was obtained by ASD Fieldspec FRTM (Boulder, Co, USA, 350nm-2500nm, 3nm for the visible near-infrared band and 10nm for the shortwave infrared band) in the Biandukou foci experimental area from Mar. 7 to 21, 2008. Those provide reliable ground data for objects modelling and background modelling, remote sensing image simulation and scaling.  
 Spectrum of dry and wet soil, the straw, the snow-covered land and the grassland was measured on Mar. 7 and the snow spectrum was measured on Mar. 21.   
 The quadrates of 90m×90m and 450m×450m were compartmentalized into 81 subgrids of 10m×10m and 50m×50m. Based on the resolution of 30m×30m and 150m×150m, the influence of adjacent eight pixels on the center pixel was studied. Section lines of each subgrid were adopted to acquire the pixel spectrum, which were measured more than once for the mean value.  
 The spectrum data were archived in the ASCII format, with the first five rows as the file header and the following two columns as wavelength (nm) and reflectance (percentage) respectively. Raw data were binary files direct from ASD (by ViewSpecPro).

2、Keywords

Theme：Terrain spectrometer,Object spectral,Terrestrial Surface Remote Sensing,Ground verification information  
Discipline：Terrestrial Surface  
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：219.9MB

4.Data format：

4、Space scope

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

5、Time frame:2008-03-18 00:00:00+00:00--2008-04-01 00:00:00+00:00

6、Reference method

References to data:

REN Huazhong. WATER: Dateset of spectral reflectance observations in the Biandukou foci experimental area. A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0035.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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