A Big Earth Data Platform for Three Poles

**HiWATER: Observation dataset of spectral reflectance in the downstream of the Heihe River Basin**

1、Description

Spectral reflectance observation was carried out for the typical underlying surface and black and white cloth in the low reaches of the Heihe River Basin during the aviation flight experiment in 2014, which will provide basic data set for the preprocessing of the flight data.
1. Observation Instrument
PRS-3500 portable spectrometer, with the spectral range is 350-2500 nm, and the reference board.
2. Samples and observation methods
The samples including the black and white cloth, the cantaloupe, the Tamarix chinensis, the Populus euphratica, the reeds, the weeds, the Karelinia caspica, the sandy soil, the gobi, the Sophora alopecuroides and so on.
Reflectance of the reference board was measure vertically for once and then objective reflectance were measured for five times for each observation objective.
3. Observation time
The typical underlying surface vegetation observation was on days of 24 July, 27 July, 31 July, 2014. The black and white cloth simultaneous observation was on 29 July, 2014.
4. Data storage
The observation recorded data were stored in excel and the original spectral data were stored in \*.sed files derived from the spectrometer, which can be opened by the matched software of the spectrometer or by a txt.

2、Keywords

Theme：Reflectivity,Ground object spectral,Vegetation
Discipline：Terrestrial Surface
Places：Heihe River Basin, the natural oasis eco-hydrology experimental area in the lower reaches
Time：2014, 2014-07-24 to 2014-07-31

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：423.0MB

4.Data format：文本

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：42.55 | - |
| west：100.95 | - | east：101.35 |
| - | south：41.85 | - |

5、Time frame:2014-08-04 08:56:00+00:00--2014-08-11 08:56:00+00:00

6、Reference method

References to data:

Li Yimeng. HiWATER: Observation dataset of spectral reflectance in the downstream of the Heihe River Basin. A Big Earth Data Platform for Three Poles, doi:10.3972/hiwater.270.2015.db2015

References to articles:

7、Supporting project information

Heihe Watershed Allied Telemetry Experimental Research (HiWATER)

8、Data resource provider

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