A Big Earth Data Platform for Three Poles

**WATER: Dateset of TIR emissivity measurements in the A'rou foci experimental area**

1、Description

The dateset of TIR (Patent No.: ZL 02 2 37640.2) emissivity measurements was obtained in No. 3 quadrate of the A'rou foci experimental area on Mar. 14, 2008. The observation site was covered with dry pasture with height less than 5cm, in which the center point of each grid was measured twice and was named in the form of A3-9 (number 9 point in No. 3 quadrate of A'rou).
 Each measurement was carried out at 45° and followed strictly the order: Tsky, Tcha, Tsm and Tcm. Meanwhile, the surface temperature was also acquired by the handheld infrared thermometer and the thermal imager (FLIR ThermaCAM). [emissivity=1- (Tcm^4 – Tsm^4)/ (Tcha^4 – Tsky^4)]. Those provide reliable data for retrieval and study of the surface temperature, and energy and radiation balance.

2、Keywords

Theme：Surface radiation temperature,Emissivity,Radiation,Thermal imager,Earth SurFace Processes,Remote Sensing Technology
Discipline：Atmosphere,Terrestrial Surface,Remote Sensing Technology
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：81.6MB

4.Data format：JPG

4、Space scope

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

5、Time frame:2008-03-23 16:00:00+00:00--2008-03-23 16:00:00+00:00

6、Reference method

References to data:

WATER: Dateset of TIR emissivity measurements in the A'rou foci experimental area. A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0020.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