A Big Earth Data Platform for Three Poles

**WATER: Dataset of surface roughness measurements in the Linze grassland foci experimental area on Jun , 2008**

1、Description

The dataset of surface roughness measurements was obtained in the reed plot A, the saline plots B and C of the Linze grassland foci experimental area on Jun. 7, 18 and 25, 2008.   
 All the quadrates were divided into 4×4 subsites, with each one spanning a 120×120 m2 plot. With the roughness plate 110cm long and the measuring points distance 1cm, the samples were collected from south to north and from east to west, respectively.  
 The coordinates of the sample would be got with the help of ArcView; and after geometric correction, surface height standard deviation (cm) and correlation length (cm) could be acquired based on the formula listed on pages 234-236, Microwave Remote Sensing, Vol. II.  
 The original photos of each sampling point, surface height standard deviation (cm) and correlation length (cm) were included this dataset. The roughness data were initialized with the sample name, which was followed by the serial number, the name of the file, standard deviation and correlation length. Each .txt file is matched with one sample photo and standard deviation and correlation length represent the roughness. In addition, the length of 101 needles is also included for further checking.

2、Keywords

Theme：Gravity,Surface Roughness  
Discipline：Solid earth  
Places：Heihe River Basin, Arid Region Hydrology in the Middle Reaches,   
Time：2008,

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：313.2MB

4.Data format：数字影像和数字文档

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：39.268 | - |
| west：100.037 | - | east：100.095 |
| - | south：39.225 | - |

5、Time frame:2008-06-17 16:00:00+00:00--2008-07-05 16:00:00+00:00

6、Reference method

References to data:

YU Fan, FENG Lei, WU Yueru, GE Chunmei, WANG Jing. WATER: Dataset of surface roughness measurements in the Linze grassland foci experimental area on Jun , 2008. A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0063.db2013

References to articles:

Wang SG, Li X, Han XJ, Jin R. Estimation of surface soil moisture and roughness from multi-angular ASAR imagery in the Watershed Allied Telemetry Experimental Research (WATER). Hydrology and Earth System Sciences, 2011, 15(5): 1415-1426. doi:10.5194/hess-15-1415-2011.

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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