A Big Earth Data Platform for Three Poles

**Landsat surface reflectance products over the Tibetan Plateau (1980s-2019)**

1、Description

The dataset is the Landsat surface reflectance products from 1980s to 2019 over the Tibetan Plateau, it is the key input parameter of many surface geophysical parameters (such as leaf area index, chlorophyll and biomass). The dataset is retrieved based on Landsat level 4 products from China satellite remote sensing ground station, and it is retrived by using the atmospheric correction based on 6S model and BRDF correction model based on C-factor .The RMSE of geometric correction is less than 12m and the RMSD of surface reflectance is less than 5%. And the corresponding production of quality identification documents (QA) is also generated to identify the cloud, ice and snow.The Landsat surface reflectance play an important role in forest, water resources, climate change.

2、Keywords

Theme：Desert,Biomass,Leaf area index(LAI),Terrestrial Surface Remote Sensing  
Discipline：Terrestrial Surface  
Places：Qinghai-Tibet Plateau  
Time：1980s-2019

3、Data details

1.Scale：None

2.Projection：UTM

3.Filesize：732958.72MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：40.4 | - |
| west：73.4 | - | east：106.7 |
| - | south：24.6 | - |

5、Time frame:1979-12-31 16:00:00+00:00--2019-12-30 16:00:00+00:00

6、Reference method

References to data:

PENG Yan. Landsat surface reflectance products over the Tibetan Plateau (1980s-2019). A Big Earth Data Platform for Three Poles, doi:10.11888/Ecolo.tpdc.2717232021

References to articles:

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

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