A Big Earth Data Platform for Three Poles

**Solar radiation dataset in three poles (2001-2017)**

1、Description

Solar radiation data were obtained using the internationally accepted solar radiation meter (LI200SZ, LI-COR, Inc., USA). The measured data are total solar radiation, including direct and diffuse solar radiation, with a wavelength range of 400-1100 nm. The units of the measurement results are W/㎡, and the typical error under natural lighting is ±3% (within an incident angle of 60°). Data from different locations in the three poles (Everest Station and Namco Station on the Tibetan Plateau, Sodankylä Station in the Arctic, and Dome A Station in the Antarctic) are derived from site cooperation and website downloads. The temporal coverage of data from the Everest Station and Namco Station on the Tibetan Plateau is from 2009 to 2016, that from the Sodankylä Station in the Arctic is from 2001 to 2017, and that from the Dome A Station in the Antarctic is from 2005 to 2014.

2、Keywords

Theme：Radiation,Temperature,Solar radiation,Humidity/Dryness  
Discipline：Atmosphere  
Places：Three poles  
Time：

3、Data details

1.Scale：250000

2.Projection：

3.Filesize：100.0MB

4.Data format：nc

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：-80.45 | - |
| west：77.890908 | - | east：77.890908 |
| - | south：-80.45 | - |

5、Time frame:2001-01-14 16:00:00+00:00--2018-01-13 16:00:00+00:00

6、Reference method

References to data:

BAI Jianhui. Solar radiation dataset in three poles (2001-2017). A Big Earth Data Platform for Three Poles, 2018

References to articles:

7、Supporting project information

CASEarth:Big Earth Data for Three Poles（grant No. XDA19070000）

8、Data resource provider

name: BAI Jianhui  
unit: Institute of Atmospheric Physics,Chines Academy of Sciences  
email: bjh@mail.iap.ac.cn