A Big Earth Data Platform for Three Poles

**Aerosol optical properties based on ground observation data in Arctic Alaska (1998-2020)**

1、Description

The aerosol optical thickness data of the Arctic Alaska station is formed based on the observation data products of the US Department of Energy's atmospheric radiation observation program at the Arctic Alaska station. The data coverage time is from 1998 to 2020, the time resolution is hourly, the coverage site is the Arctic Alaska station, and the longitude and latitude coordinates are (71 ° 19 ′ 22.8 ″ N, 156 ° 36 ′ 32.4 ″ W). The observation data is obtained from the inversion of the radiation data observed by MFRSR instrument. The optical characteristic variable is aerosol optical thickness, and the observation inversion error range is about 15%. The data format is nc format.

2、Keywords

Theme：Atmosphere Remote Sensing,Aerosol  
Discipline：Atmosphere  
Places：North Slope Alaska  
Time：1998-2020

3、Data details

1.Scale：None

2.Projection：WGS84

3.Filesize：50.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：71.323 | - |
| west：-156.615 | - | east：-156.615 |
| - | south：71.323 | - |

5、Time frame:1998-03-31 16:00:00+00:00--2020-08-30 16:00:00+00:00

6、Reference method

References to data:

ZHAO Chuanfeng. Aerosol optical properties based on ground observation data in Arctic Alaska (1998-2020). A Big Earth Data Platform for Three Poles, doi:10.11888/AtmosPhys.tpe.00000036.file2022

References to articles:

7、Supporting project information

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

8、Data resource provider

name: ZHAO Chuanfeng  
unit: Beijing Normal University  
email: czhao@bnu.edu.cn