A Big Earth Data Platform for Three Poles

**On line observation data set of Hengduanshan mountain gorge area**

1、Description

The data set is from Gaomeigu area in Lijiang, Yunnan Province. The longitude, latitude and altitude of Gaomeigu area are 100 E ° 01 ′ 51 ″, 26 n ° 42 ′ 32 ″, altitude 3200m. The data set includes: 1. Continuous observation of the mass concentration of fusible chemical components in the atmosphere, including organic matter, nitrate, sulfate, chloride and ammonia. The measurement instrument is the aerosol chemical composition on-line monitor (ACSM). The observation period is from 00:29 on March 13, 2018 to 01:27 on April 7, 2018, and the time resolution is 30 minutes. The intermediate instrument runs well, and the data is missing occasionally. The data file contains the mass concentration data of each component measured by the instrument. 2. Continuously observe the mass concentration of black carbon in the atmosphere. The measuring instrument is aethalometer ae33 black carbon instrument produced by Magee company. The observation period is from 00:00 on March 14, 2018 to 23:59 on May 13, 2018, and the time resolution is 1 minute. The whole observation instrument works well, and the data is missing occasionally. The data file contains the information of the instrument, the measured mass concentration data of black carbon and various parameters of the instrument, including temperature, pressure, flow rate, etc. 3. Continuously observe the mass concentration of nitric oxide and nitrogen oxides in the atmosphere. The measuring instrument is the NOx analyzer produced by Thermo Fisher company. The observation period is from 00:00 on April 10, 2018 to 23:59 on May 13, 2018, and the time resolution is 1 minute. The whole observation instrument works well, and the data is missing occasionally. The data file contains the mass concentration data of NOx and no gas measured by the instrument. 4. Continuously observe the mass concentration of ozone in the atmosphere. The measuring instrument is the 49i ozone analyzer produced by Thermo Fisher company. The observation period is from 00:00 on March 15, 2018 to 23:59 on May 13, 2018, and the time resolution is 1 minute. The whole observation instrument works well, and the data is missing occasionally. The data file contains the mass concentration data of ozone gas measured by the instrument. 5. Continuously observe the mass concentration of sulfur dioxide in the atmosphere. The measuring instrument is sulfur dioxide analyzer produced by Thermo Fisher company. The observation period is from 00:00 on March 15, 2018 to 23:59 on May 13, 2018, and the time resolution is 1 minute. The whole observation instrument works well, and the data is missing occasionally. The data file contains the mass concentration data of sulfur dioxide gas measured by the instrument. Supported project: the second comprehensive scientific expedition to the Qinghai Tibet Plateau 2019qzk0602.

2、Keywords

Theme：Geochemical else,Pollution control,Aerosol mass concentration,Carbonaceous aerosols,Aerosol,Environmental health,Regional geochemical,Geochemistry,Aerosol particle properties,Environmental geochemistry,Environment Pollution and Control  
Discipline：Atmosphere,Human-nature Relationship,Solid earth  
Places：Hengduan Mountain Alpine Canyon Area, Gaomeigu, Lijiang, Yunnan  
Time：2018

3、Data details

1.Scale：None

2.Projection：

3.Filesize：16.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：26.0 | - |
| west：1.0 | - | east：100.0 |
| - | south：1.0 | - |

5、Time frame:2018-03-12 16:00:00+00:00--2018-05-13 03:59:59+00:00

6、Reference method

References to data:

WANG Qiyuan, HU Tafeng, RAN Weikang, WU Feng, ZHANG Ningning, DAI Wenting, ZHU Chongshu. On line observation data set of Hengduanshan mountain gorge area. A Big Earth Data Platform for Three Poles, doi:10.11888/Meteoro.tpdc.2713632021

References to articles:

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

name: HU Tafeng  
unit:   
email: hutf@ieecas.cn  
  
name: WU Feng  
unit:   
email: kurt\_wf@ieecas.cn  
  
name: WANG Qiyuan  
unit:   
email: wangqy@ieecas.cn  
  
name: ZHANG Ningning  
unit:   
email: zhangnn@ieecas.cn  
  
name: DAI Wenting  
unit:   
email: daiwt@ieecas.cn  
  
name: ZHU Chongshu  
unit:   
email: chongshu@ieecas.cn  
  
name: RAN Weikang  
unit:   
email: ranwk@ieecas.cn