A Big Earth Data Platform for Three Poles

**Atmospheric environment observation data set of northeast Qinghai Tibet Plateau (September 10, 2019 and September 10, 2020)**

1、Description

This data-set contains the field measurements of meteorological parameters，trace gases, PM2. 5/PM10, particle number size distribution (12-530 nm), aerosol chemical composition (sulfate, nitrate and heavy metal components in PM2.5) at Geermu and Xihai (36.4oN, 94.8oE, 2800 m a.s.l. and 36.9oN, 100.9oE, 3080 m a.s.l., respectively) and the mobile measurements of trace gases in northeastern part of Tibetan Plateau. The time period of this data-set is from September to October in 2019 and 2020. The data-set comes from two measurement campaigns in 2019 and 2020. The mobile observation platform of Nanjing University, including various online measurement instruments（Duvas-DV3000，microAeth®-MA200，Vaisala weather probe）, was used to conduct the field measurements. The data in this data-set is finalized data with the data correction according to the instruments calibration and data quality control based on the data closure research results between multiple instruments. The atmospheric components data, such as trace gases, PM2.5/PM10, particle number size distribution, aerosol chemical composition, are the observation data under actual atmospheric pressure conditions without pressure corrections. The data-set can be directly used to analyze the atmospheric physics and chemistry related scientific issues in the northeastern part of the Tibetan Plateau. This data-set supplements the lack of field observation data related to the atmospheric environment in the northeastern part of the Tibetan Plateau.

2、Keywords

Theme：Aerosol mass concentration,Aerosol,POPs,Particulate matter,Organic particles,Aerosol optical depth/Thickness,Atmospheric Trace Gase,Sulfate particles
Discipline：Atmosphere
Places：Xihaizhen, eastern part of Tibetan Plateau, Golmud
Time：2019-2020

3、Data details

1.Scale：None

2.Projection：

3.Filesize：14.2MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：36.9 | - |
| west：94.8 | - | east：100.9 |
| - | south：36.4 | - |

5、Time frame:2019-09-19 16:00:00+00:00--2020-10-20 16:00:00+00:00

6、Reference method

References to data:

NIE Wei, CHI Xuguang. Atmospheric environment observation data set of northeast Qinghai Tibet Plateau (September 10, 2019 and September 10, 2020). A Big Earth Data Platform for Three Poles, doi:10.11888/Meteoro.tpdc.2712352021

References to articles:

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

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