A Big Earth Data Platform for Three Poles

**Long-term dataset of concentrations of atmospheric POPs in the southeast Tibet (2012-2014)**

1、Description

This data set is the long-term concentrations of atmospheric POPs in southeast Tibet, including OCP, PCBs and PAHs. The sampling period in this study was from August 2008 to July 2014. The data was gained from the continuous air monitoring program in STORS. In this program, a low-volume air sampler (~100 L/min) was set at STORS to trap particle- and gas-phase chemicals by a glass fiber filter (GFF, diameter of 9 cm) and polyurethane foam plugs (PUFs, 7.5 cm × 6 cm diameter), respectively. Typically, ~700 m3 of air was collected over a two-week period. Total (gas + particle) phase concentrations are reported. POPs were analyzed at Key Laboratory of Tibetan Environment Changes and Land Surface Processes, Chinese Academy of Sciences. The air samples were Soxhlet-extracted, purified on an aluminium/silica column (i.d. 8 mm), a gel permeation chromatography (GPC) column subsequently. The samples were detected on a gas chromatograph with an ion-trap mass spectrometer (GC-MS, Finnigan Trace GC/PolarisQ) operating under MS–MS mode. A CP-Sil 8CB capillary column (50 m ×0.25 mm, film thickness 0.25 μm) was used for OCPs and PCBs and a DB-5MS column (60 m ×0.25mm, film thickness 0.25 μm) was used for PAHs. Field blanks and procedural blanks were prepared. The recoveries ranged from 64% to 112% for OCPs, and 65% to 92% for PAHs. The reported concentrations were not corrected for recoveries.

2、Keywords

Theme：POPs,Atmospheric Trace Gase
Discipline：Atmosphere
Places：Southeastern Tibet
Time：2012-2014

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：0.04MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：29.77 | - |
| west：94.73 | - | east：94.73 |
| - | south：29.77 | - |

5、Time frame:2012-09-06 00:00:00+00:00--2014-10-05 00:00:00+00:00

6、Reference method

References to data:

WANG Xiaoping. Long-term dataset of concentrations of atmospheric POPs in the southeast Tibet (2012-2014). A Big Earth Data Platform for Three Poles, doi:10.11888/Geogra.tpdc.2702182019

References to articles:

Wang, X.P., Gong, P., Sheng, J.J., Joswiak, D.R., &Yao, T.D. (2015). Long-range atmospheric transport of particulate polycyclic aromatic hydrocarbons and the incursion of aerosols to the southeast Tibetan Plateau. Atmospheric Environment, 115, 124-131.

Sheng J.J., Wang X.P., Gong P., Joswiak D.R., Tian L.D., Yao T.D., Jones K.C. Monsoon-driven transport of organochlorine pesticides and polychlorinated biphenyls to the Tibetan Plateau: three year atmospheric monitoring study. Environmental Science Technology, 2013, 47: 3199-3208.

Wang C. F.,Wang X. P.\*, Gong P., & Yao T. D. (2018). Long-term trends of atmospheric organochlorine pollutants and polycyclic aromatic hydrocarbons over the southeastern Tibetan Plateau. Science of the Total Environment, 624, 241-149.

7、Supporting project information

Pan-Third Pole Environment Study for a Green Silk Road-A CAS Strategic Priority A Program
Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

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