A Big Earth Data Platform for Three Poles

**WATER: Dataset of LAS (large aperture scintillometer) observations at the A'rou freeze/thaw observation station (2008-2012)**

1、Description

The dataset of LAS (Large Aperture Scintillometer: BLS450, made in Germany) observations was obtained at the A'rou freeze/thaw observation station from Mar. 11 to Jul. 11, 2008. The transmitter (E100°28′16.4″, N38°03′24.3″, 11.2m) and the receiver (E100°27′25.9″, N38°02′18.1″, 11.5m) were 2390m away from each other and the operating altitude was 9.5m. The observation item was the atmospheric refractive index structural parameters (Cn2). The transmitting frequency was 5HZ and the data were output per minute. The processed data were archived in a 30 minutes cycle.   
 The data were named after WATER\_LAS\_A'rou\_yyyymmdd-yyyymmdd.csv (yyyymmdd-yyyymmdd for observation time). The missing data were marked "None".

2、Keywords

Theme：Surface energy balance,Radiation,Sensible heat flux  
Discipline：Atmosphere  
Places：Heihe River Basin, the cold region hydrology experimental area in the upper reaches, A'rou flight zone,   
Time：

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：5.2MB

4.Data format：

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.08 | - |
| west：100.41 | - | east：100.55 |
| - | south：38.02 | - |

5、Time frame:2008-03-24 16:00:00+00:00--2012-04-24 10:00:00+00:00

6、Reference method

References to data:

LI Xin, LIU Shaomin, XU Ziwei. WATER: Dataset of LAS (large aperture scintillometer) observations at the A'rou freeze/thaw observation station (2008-2012). A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0161.db2016

References to articles:

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Liu, S.M., Li, X., Xu, Z.W., Che, T., Xiao, Q., Ma, M.G., Liu, Q.H., Jin, R., Guo, J.W., Wang, L.X., Wang, W.Z., Qi, Y., Li, H.Y., Xu, T.R., Ran, Y.H., Hu, X.L., Shi, S.J., Zhu, Z.L., Tan, J.L., Zhang, Y., & Ren, Z.G. (2018). The Heihe Integrated Observatory Network: A Basin-Scale Land Surface Processes Observatory in China. Vadose Zone Journal, 17(1), 180072. doi:10.2136/vzj2018.04.0072.

7、Supporting project information

The CAS (Chinese Academy of Sciences) Action Plan for West Development Project  
National Program on Key Basic Research Project (973 Program

8、Data resource provider

name: XU Ziwei  
unit: Beijing Normal University  
email: xuzw@bnu.edu.cn  
  
name: LI Xin  
unit:   
email: xinli@itpcas.ac.cn  
  
name: LIU Shaomin  
unit: Beijing Normal University  
email: smliu@bnu.edu.cn