Upper Yangtze River Scientific Data Center

**Monthly dataset of 0.05 ° sunlight induced chlorophyll fluorescence (GOSIF) in the upper reaches of the Yangtze River, China (2000-2021)**

1、Description

Solar induced chlorophyll fluorescence (SIF) has made great progress in measuring terrestrial photosynthesis. Several recent studies have evaluated the potential of SIF retrieval from Orbital Carbon Observing-2 (OCO-2) in estimating total primary productivity (GPP). However, the spatial and temporal sparsity of OCO-2 data makes it challenging to use these data for many applications from the ecosystem scale to the global scale. This data set is a new global SIF data set (GOSIF) based on OCO-2 developed by using discrete OCO-2 SIF bathymetry, remote sensing data of medium resolution imaging spectrometer (MODIS) and meteorological reanalysis data, with high spatial and temporal resolution (i.e. 0.05 °, 8 days, months and years). Compared with the coarse resolution SIF data directly aggregated from OCO-2 sounding, GOSIF has better spatial resolution, global continuous coverage and longer records. GOSIF can be used to assess terrestrial photosynthesis and ecosystem functions and serve as a benchmark for terrestrial biosphere and Earth system models. This dataset is the sunlight induced chlorophyll fluorescence data of the upper reaches of the Yangtze River in China on a monthly scale with time resolution.

2、Keywords

Theme：SIF,Terrestrial Surface Remote Sensing  
Discipline：Terrestrial Surface  
Places：1  
Time：2000-2021

3、Data details

1.Scale：None

2.Projection：

3.Filesize：57.3MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：36.5 | - |
| west：89.0 | - | east：112.0 |
| - | south：24.0 | - |

5、Time frame:None--None

6、Reference method

References to data:

XIAO Jingfeng , LI Xing . Monthly dataset of 0.05 ° sunlight induced chlorophyll fluorescence (GOSIF) in the upper reaches of the Yangtze River, China (2000-2021). Upper Yangtze River Scientific Data Center, doi:https://doi.org/10.3390/rs110505172022

References to articles:

7、Supporting project information

8、Data resource provider

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