Upper Yangtze River Scientific Data Center

**Monthly Data Set of 0.05 ° Sun Induced Chlorophyll Fluorescence (GOSIF) in Southwest 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 data set is the solar induced chlorophyll fluorescence data of southwest China with monthly time resolution.

2、Keywords

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

3、Data details

1.Scale：None

2.Projection：

3.Filesize：46.1MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：34.5 | - |
| west：97.0 | - | east：112.5 |
| - | south：20.5 | - |

5、Time frame:None--None

6、Reference method

References to data:

XIAO Jingfeng , LI Xing . Monthly Data Set of 0.05 ° Sun Induced Chlorophyll Fluorescence (GOSIF) in Southwest 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

name: LI Xing
unit: Earth Systems Research Center, Institute for the Study of Earth, Oceans, and Space, University of New Hampshire
email: j.xiao@unh.edu;zxwlxty@163.com

name: XIAO Jingfeng
unit: Earth Systems Research Center, Institute for the Study of Earth, Oceans, and Space, University of New Hampshire
email: j.xiao@unh.edu