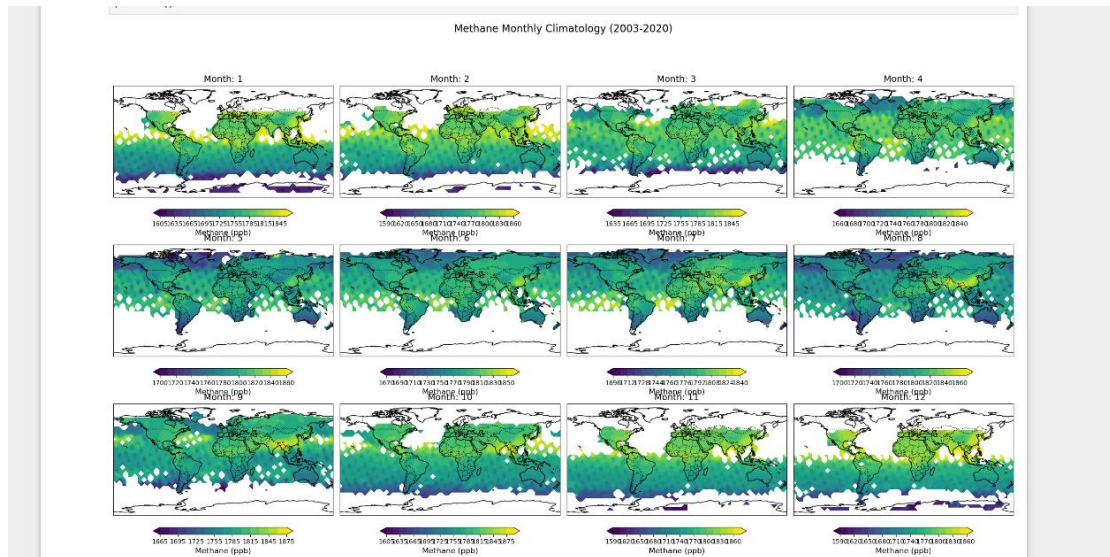
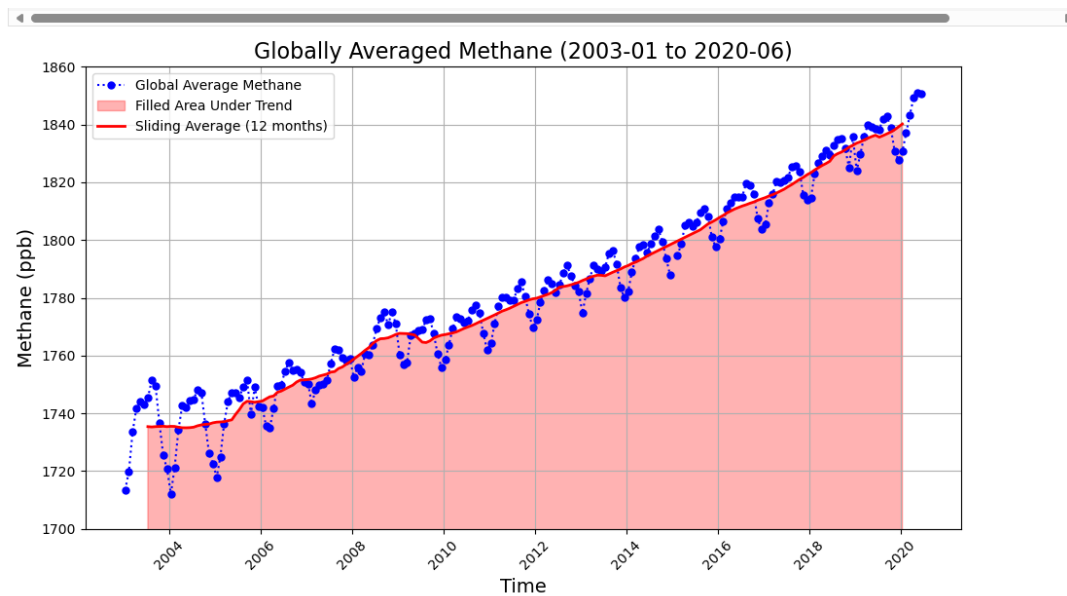


Task 1

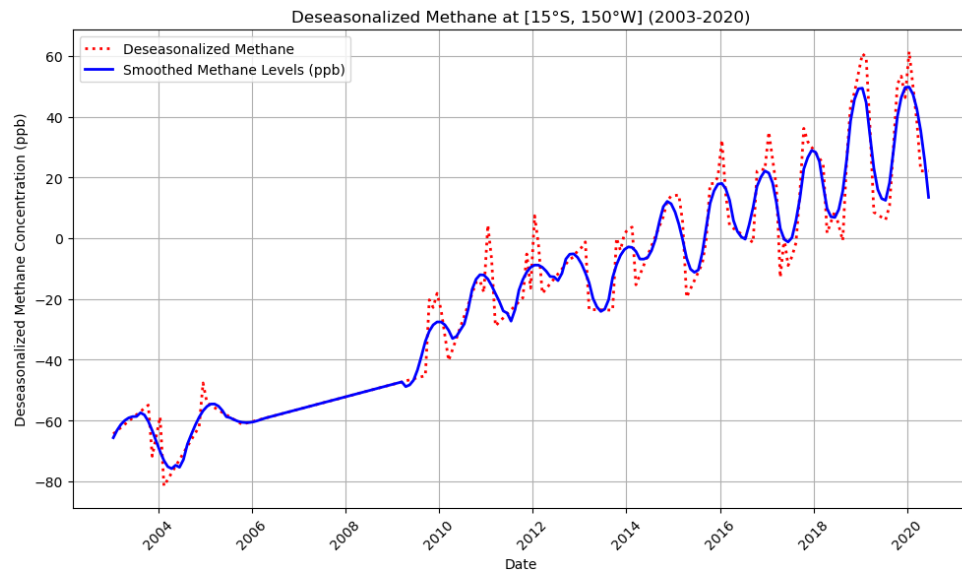
1.1



1.2 甲烷浓度呈现出季节性变化趋势，同时随着年份的增加浓度不断地升高。趋势线则显示出随着年份的增加浓度不断变大。



1.3 随着年份增大略微升高，整体上的偏差波动不大。



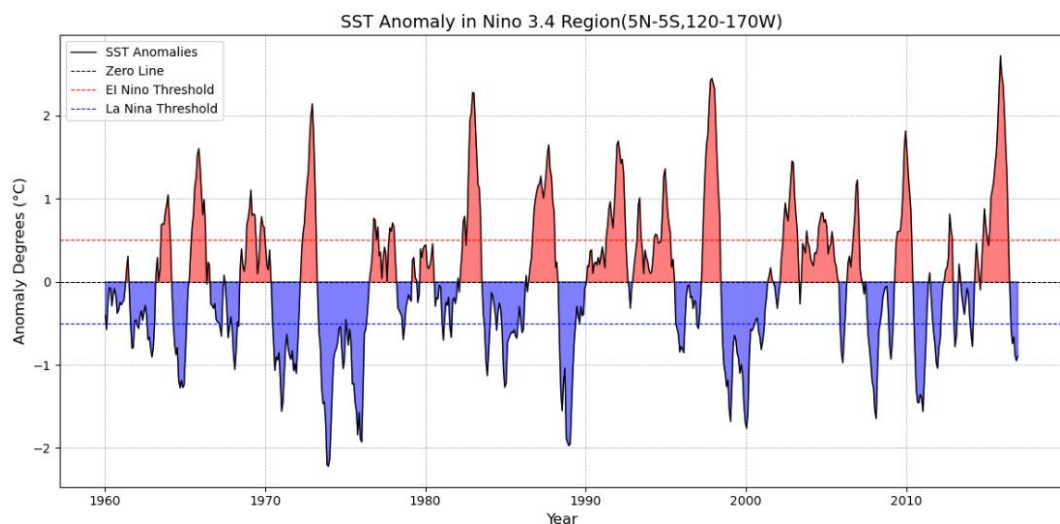
Task 2

2.1

```

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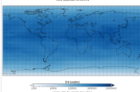


Task3

数据来源：TROPESS Chemical Reanalysis Surface Total NO_x emissions Monthly 2-dimensional Product V1 (TRPSCRENOXTM2D) (2018-2021)

[Back to search results](#)

Tropospheric Ozone and its Precursors from Earth System Sounding
TROPESS Chemical Reanalysis OH Monthly 3-dimensional Product V1 (TRPSCROHM3D)



The TROPESS Chemical Reanalysis OH Monthly 3-dimensional Product contains vertical concentrations of the hydroxyl radical. The data are part of the Tropospheric Chemical Reanalysis v2 (TCR-2) for the period 2005-2021. TCR-2 uses JPL's Multi-mOdel Multi-cOnstituent Chemical (MOMO-Chem) data assimilation framework that simultaneously optimizes both concentrations and emissions of multiple species from multiple satellite sensors.

The data files are written in the netCDF version 4 file format, and each file contains a year of data at monthly resolution, and a spatial resolution of 1.125 x 1.125 degrees at 27 pressure levels between 1000 and 60 hPa. The principal investigator for the TCR-2 data is Miyazaki, Kazuyuki.

[Cloud Enabled](#)

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[Product Summary](#) [Data Citation](#) [Documentation](#) [References](#) [Data Calendar](#)

Shortname:	TRPSCROHM3D
Longname:	TROPESS Chemical Reanalysis OH Monthly 3-dimensional Product V1
DOI:	10.5067/POL5GL2M4JQX
Version:	1
Format:	netCDF
Spatial Coverage:	-180.0,-90.0,180.0,90.0
Temporal Coverage:	2005-01-01 to 2022-01-01
File Size:	45 MB per file
Data Resolution	
Spatial:	1.125 ° x 1.125 °
Vertical:	2 km
Temporal:	1 month

3.1 时间序列图

3.2

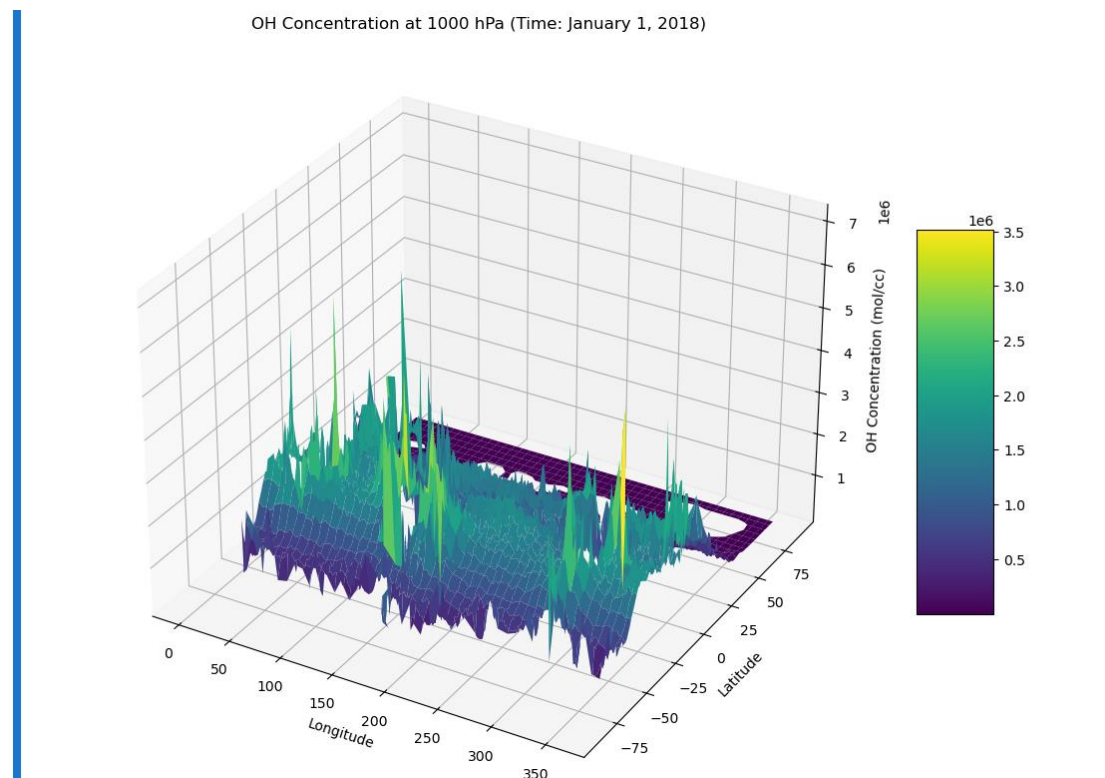


Fig.1: Distribution of OH concentration at a specific time and 1000 hPa pressure level across different latitudes and longitudes

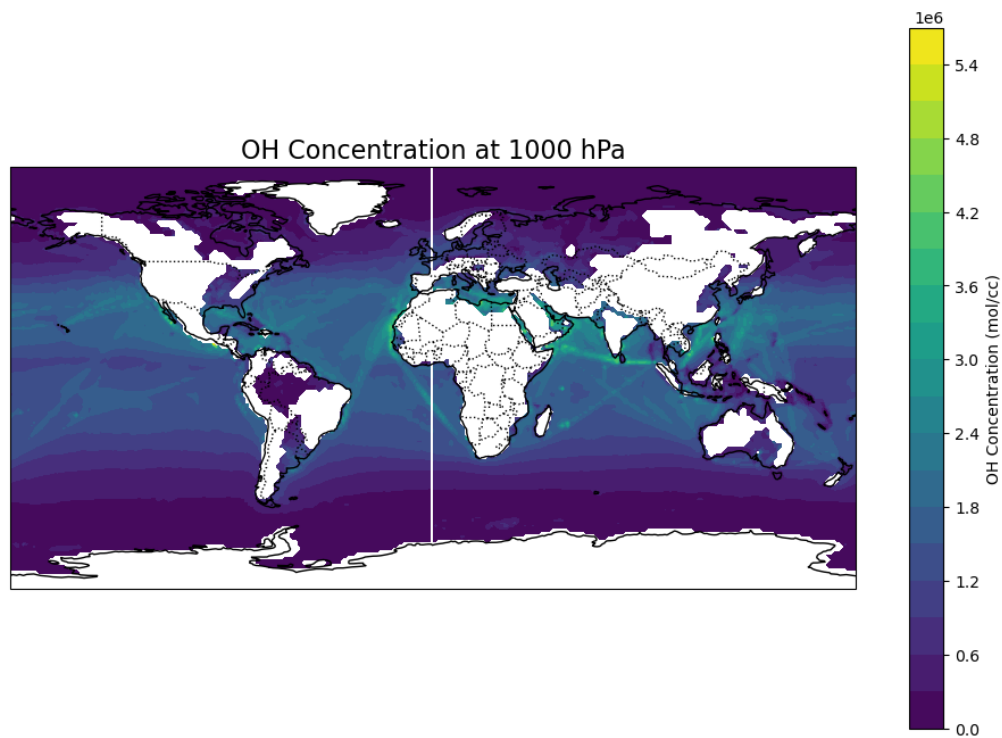


Fig.2: Distribution of average OH concentration at 1000 hPa over four years

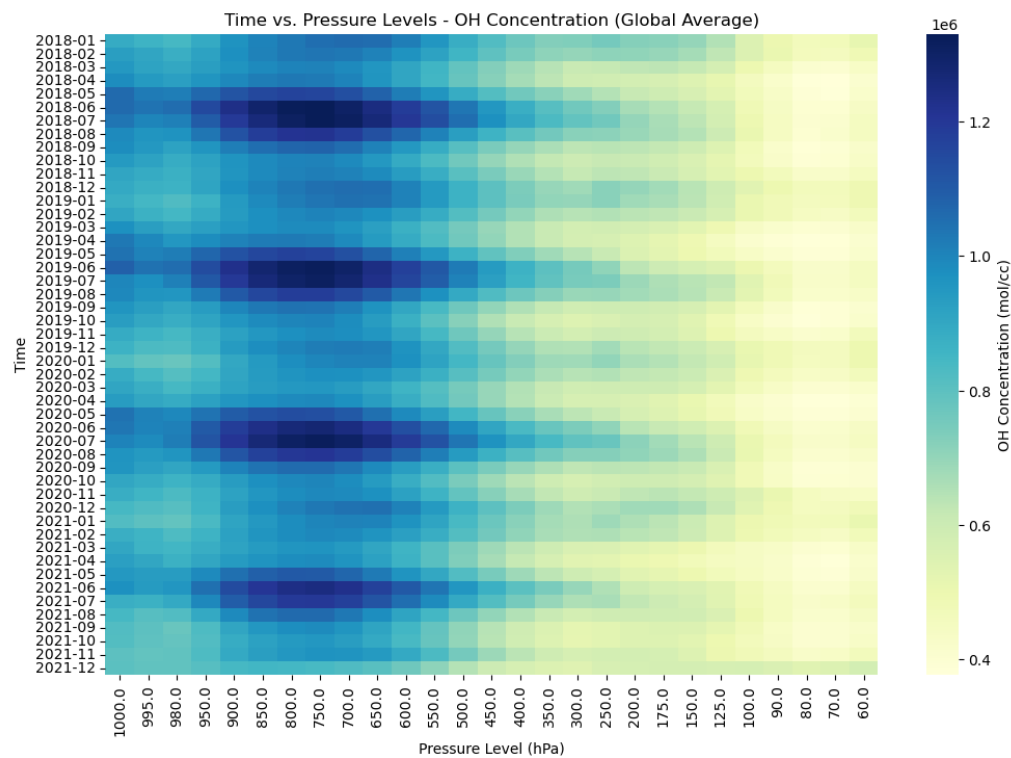


Fig.3: Time vs. pressure levels of OH concentration (global average without considering projection area)

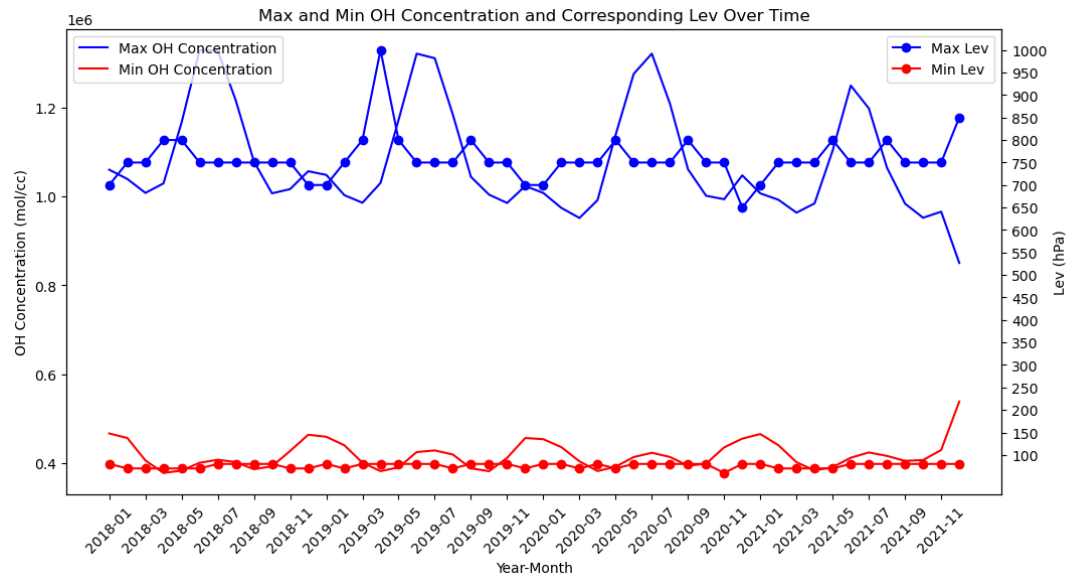


Fig.4: Distribution of maximum and minimum OH concentrations, and their corresponding lev over time for different months and pressure levels

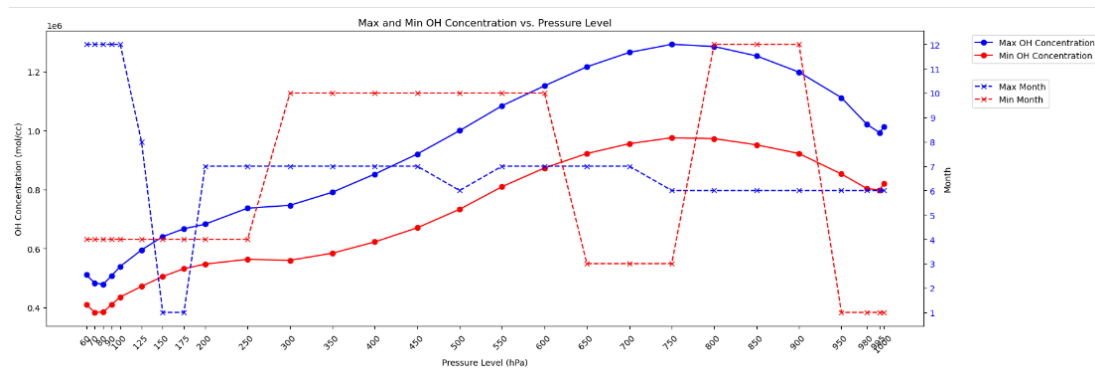


Fig.5: Distribution of maximum and minimum OH concentrations with pressure level (lev) across different months