

## MIRAI MR13-04 Partial Pressure of CO<sub>2</sub> (pCO<sub>2</sub>)

Last Modified: 2018-02-06

[ReadMe](#) [Observation Data](#) [Data Format](#)

Cruise ID: [MR13-04](#)

Partial Pressure of CO<sub>2</sub> (pCO<sub>2</sub>): Processed (DMO)-QCed

Data Policy: [JAMSTEC](#)

Observation Items: CO<sub>2</sub>, Air temperature, Atmospheric pressure, Wind direction, Wind speed, Sea surface temperature, Sea surface salinity

Science Keywords:

OCEANS > OCEAN CHEMISTRY > CARBON DIOXIDE

Cruise Report

[http://www.godac.jamstec.go.jp/catalog/data/doc\\_catalog/media/MR13-04\\_all.pdf](http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR13-04_all.pdf)

### For Using Data

#### Principal Investigator

Masahide Wakita (JAMSTEC)

#### Use Constraints

See [Terms and Conditions](#) about constrain of use.

#### Data Citation

See [Terms and Conditions](#) about data citation.

### Instrument

Instrument:

pCO<sub>2</sub> measurement system (MR10-07

- )



### Information on pCO<sub>2</sub> measurement

Instrument : pCO<sub>2</sub> measuring system ; Nippon ANS Ltd.

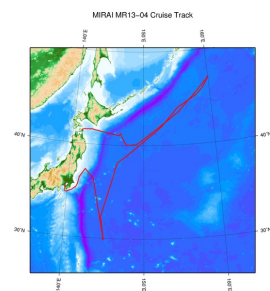
Method : Non-dispersive infrared gas analyzer (NDIR) / Equilibrator : showerhead-type

Precision : -

Reference Gas : Taiyo Nippon Sanso Corporation

[About data processing method](#)

### Related Information



[Enlarge Image](#)

#### MR13-04

Ship Name: MIRAI

Period: 2013-07-09 - 2013-07-29

Chief Scientist: Makio Honda (JAMSTEC)

Project Name: [Station K2, Station S1, Station KEO, Station KNOT]

Proposal ▶ Change in material cycles and ecosystem by the climate change and its feedback

Title:

### Update History

2018-02-06	An observation data was registered.
2017-07-27	An observation data was registered.
2015-08-30	An observation data was registered.

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HAKUHO MARU

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6K Sonar DEEP TOW  
KM-ROV  
POWER GRAB SAMPLER (SHELL)  
POWER GRAB SAMPLER (CLOW)  
BMS

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## MIRAI MR13-04 Partial Pressure of CO2 (pCO2)

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Partial Pressure of CO2 (pCO2): Processed (DMO)-QCed

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### pCO2 FORMAT\_M

#### Data Format

The file is in variable length, comma separated text file (csv) format.

The line starts with "#" is a comment line which contains version information and so on.

Column NO.	Column Heading	Comments
1	Ship	Ship name
2	Cruise	Cruise ID
3	Serial No.	Serial No.
4	Date	year (YYYY) in UTC
5		month (MM) in UTC
6		day (DD) in UTC
7	Time	hour (hh) in UTC
8		minute (mm) in UTC
9	Latitude	Latitude (degree) ; Positive in north
10	Longitude	Longitude (degree) ; degree in eastward (0 - 360)
11	xCO2_Air	CO <sub>2</sub> mixing ratio (ppm) in the air
12	F	Quality flag for xCO2_Air
13	xCO2_Sea	CO <sub>2</sub> mixing ratio (ppm) in the sea surface water (*)
14	F	Quality flag for xCO2_Sea
15	Wind_Dir	Wind direction (degree) ; Positive in clockwise from the north
16	Wind_Spd	Wind speed (m/s)
17	Atm_Prs	Barometric pressure (hPa)
18	Atm_Tmp.	Air temperature (degree-C)
19	SST	Sea surface temperature (degree-C)
20	F	Quality flag for SST
21	SSS	Sea surface salinity (PSU)
22	F	Quality flag for SSS
23	pH2O	Vapor pressure of in-situ sea water (hPa)

#### Definition of Quality Control Flags

2 - Good

3 - Questionable

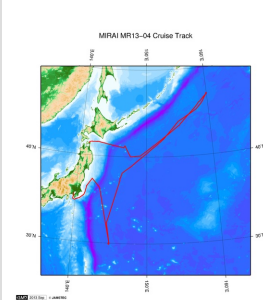
4 - Bad

5 - Not reported

9 - No data

\*: Please refer to "Information on pCO2 data" shown in ReadMe tab for xCO2\_Sea data calculation.

### Related Information



[Enlarge Image](#)

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### Observation Map

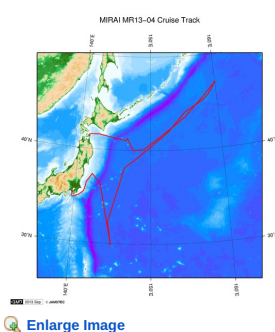


### Data List

File names

☐ MR13-04\_xCO2.csv

### Related Information



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