

MIRAI MR10-05 Leg1 Partial Pressure of CO2 (pCO2)

Last Modified: 2018-02-09

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

Cruise ID: [MR10-05 Leg1](#)

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

Data Policy: [JAMSTEC](#)

Observation Items: CO2, 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/MR10-05_leg1-2_all.pdf

[For Using Data](#)

Principal Investigator

Shigeto Nishino (JAMSTEC)

Use Constraints

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

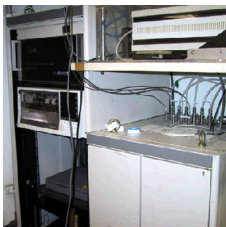
Data Citation

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

Instrument

Instrument:

pCO2 measurement system (- MR10-06)



Information on pCO2 measurement

Instrument : pCO₂ measuring system ; Nippon ANS Ltd.

Method : Non-dispersive infrared gas analyzer (NDIR)

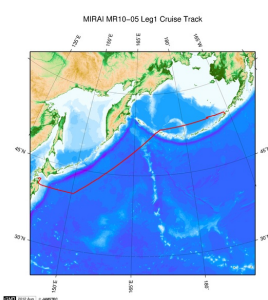
Equilibrator : showerhead-type

Precision : -

Reference Gas : Taiyo Nippon Sanso Corporation

[About data processing method](#)

Related Information



[Enlarge Image](#)

MR10-05 Leg1

Ship Name: MIRAI

Period: 2010-08-24 - 2010-09-01

Chief Scientist: Motoyo Ito (JAMSTEC)

Project Name: [Arctic Ocean Climate System Research]

Proposal ▶ Arctic Climate Oceanography

Title:

Update History

| | |
|------------|------------------------------------|
| 2018-02-09 | An observation data was registerd. |
| 2017-07-27 | An observation data was registerd. |
| 2012-10-31 | An observation data was registerd. |

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Dive ID:

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POWER GRAB SAMPLER
(CLOW)
BMS

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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.

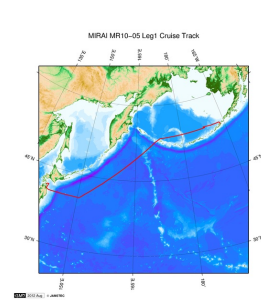
| Column NO. | Column Heading | Comments |
|------------|----------------|---|
| 1 | Ship | Ship name |
| 2 | Cruise | Cruise ID |
| 3 | Serial No. | Serial No. |
| 4 | Date | year (YYYY) in UTC |
| 5 | | month (MM) in UTC |
| 6 | | day (DD) in UTC |
| 7 | Time | hour (hh) in UTC |
| 8 | | minute (mm) in UTC |
| 9 | Latitude | Latitude (degree) ; Positive in north |
| 10 | Longitude | Longitude (degree) ; degree in eastward (0 - 360) |
| 11 | xCO2_Air | CO ₂ mixing ratio (ppm) in the air |
| 12 | F | Quality flag for xCO2_Air |
| 13 | xCO2_Sea | CO ₂ 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](#)

MR10-05 Leg1

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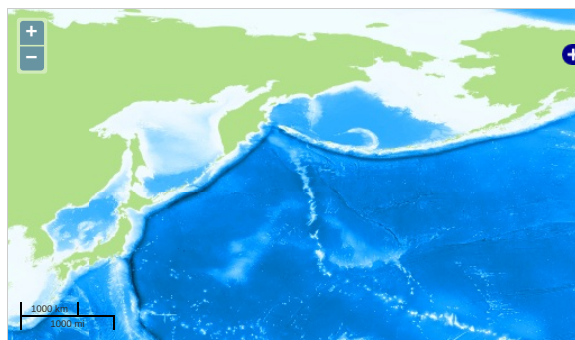
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Observation Map



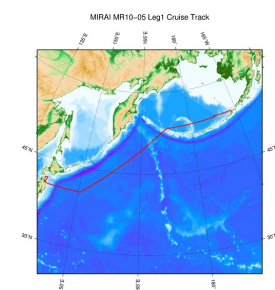
... Observation Line ... Navigation ... Observation, Dive Point, Hole

Data List

File names

☐ MR10-05_leg1_xCO2.zip

Related Information



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