

MIRAI MR16-06 Partial Pressure of CO₂ (pCO₂)

Last Modified: 2018-10-31

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

Cruise ID: [MR16-06](#)

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/MR16-06_all.pdf

For Using Data

Principal Investigator

Data Management Office

Use Constraints

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

Data Citation

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

Instrument

Instrument:

pCO₂ measurement system (MR10-07

-)



Information on pCO₂ measurement

Depth of sea water intake : 4.5m

Instrument : pCO₂ measuring system

Method : Non-dispersive infrared gas analyzer (NDIR) LI-7000 (LI-COR) ; Nippon ANS Ltd. S/N: IRG4-0900

Equilibrator : showerhead-type

Precision : -

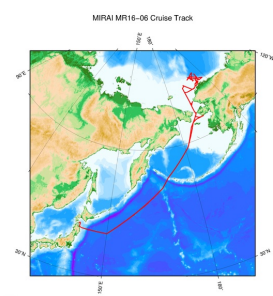
Reference Material/Calibration : Taiyo Nippon Sanso Corporation

Sea surface temperature/salinity : refer to details of "Underway Thermosalinograph"

Equilibrator temperature : Pt100 ; THERMOTECHE Co. Ltd, Japan

[About data processing method](#)

Related Information



[Enlarge Image](#)

MR16-06

Ship Name: MIRAI

Period: 2016-08-22 - 2016-10-05

Chief Scientist: Shigeto Nishino (JAMSTEC)

Project Name: [Arctic Ocean Climate System Research]

Proposal ▶ Predictability study on weather and sea-ice forecasts linked with user engagement

Title:

Update History

2018-10-31 An observation data was registered.

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HAKUHO MARU

Information of the Submersibles

KAIKO

SHINKAI 2000

SHINKAI 6500

DEEP TOW

HYPER-DOLPHIN

URASHIMA

YOKOSUKA DEEP TOW

6K Camera DEEP TOW

6K Sonar DEEP TOW

KM-ROV

POWER GRAB SAMPLER (SHELL)

POWER GRAB SAMPLER (CLOW)

BMS

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Dive ID:



MIRAI MR16-06 Partial Pressure of CO2 (pCO2)

Last Modified: 2018-10-31

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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.

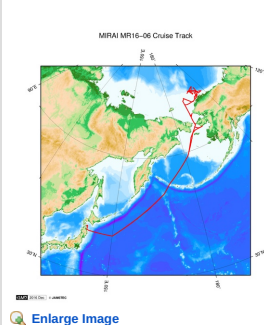
Column NO.	Column Heading	Comments
1	Ship	Ship name
2	Cruise	Cruise ID
3	Serial No.	Serial No.
4	Date	year (YYYY) in UTC
5		month (MM) in UTC
6		day (DD) in UTC
7	Time	hour (hh) in UTC
8		minute (mm) in UTC
9	Latitude	Latitude (degree) ; Positive in north
10	Longitude	Longitude (degree) ; degree in eastward (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](#)

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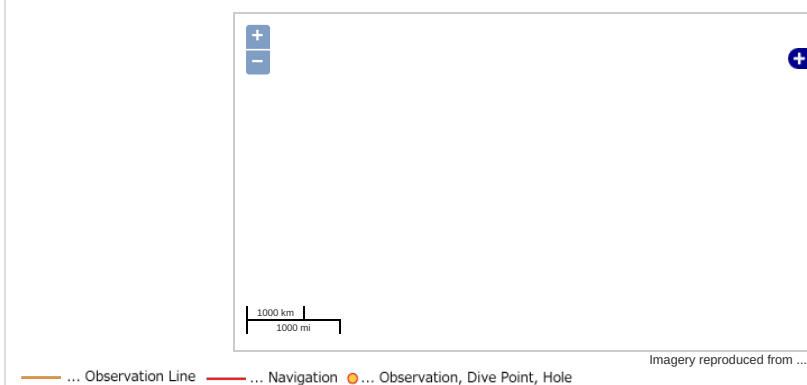
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Observation Map

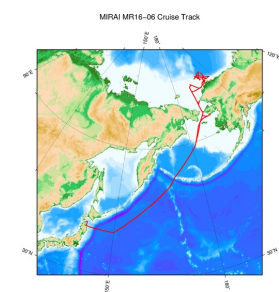


Data List

File names

☐ MR16-06_xCO2.csv

Related Information



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