

MIRAI MR99-K07 Partial Pressure of CO2 (pCO2)

Last Modified: 2018-08-25

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

Cruise ID: [MR99-K07](#)

Partial Pressure of CO2 (pCO2): Processed (PI)

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/MR99-K07_all.pdf

For Using Data

Principal Investigator

Masao Ishii (Meteorological Research Institute)

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

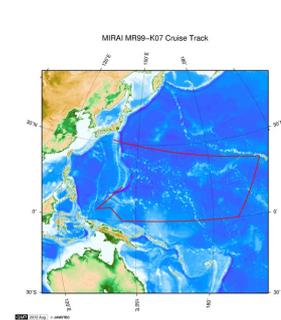
Precision : -

Reference Material/Calibration : MRI_87 scale

Please refer to Ishii et al. (2004) for calculation of sea-surface CO₂ concentration and for relationship between MRI_87 scale and WMO1985 mole fraction scale.

Ishii, M., S. Saito, T. Tokieda, T. Kawano, K. Matsumoto, and H. Y. Inoue (2004) Variability of Surface Layer CO₂ Parameters in the Western and Central Equatorial Pacific. Global Environmental Change in the Ocean and on Land, Eds., M. Shiyomi et al., pp. 59-94.

Related Information



[Enlarge Image](#)

MR99-K07

Ship Name: MIRAI

Period: 1999-11-20 - 1999-12-27

Chief Scientist: Takeshi Kawano (JAMSTEC)

Update History

2018-08-25	An observation data was registerd.
2013-01-25	An observation data was registerd.

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

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JAMSTEC

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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.

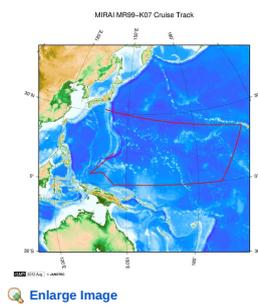
Column NO.	Column Heading	Comments
1	Ship	Ship name
2	Cruise	Cruise ID
3	Serial No.	Serial No.
4	Date	year (YYYY) in UTC
5		month (MM) in UTC
6		day (DD) in UTC
7	Time	hour (hh) in UTC
8		minute (mm) in UTC
9	Latitude	Latitude (degree) ; Positive in north
10	Longitude	Longitude (degree) ; degree in eastward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



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 Site Policy
 Privacy Policy
 Application for Data and Samples
 Data Policy
 What's New
 Update History
 Feeds

Lists
 Publication List
 Amount of Public Info.
 Data
 Map Search
 Data Tree
 Detailed Search

Information of the Ships
 Information of the Submersibles
 NATSUSHIMA
 KAIYO
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 MIRAI
 KAIREI
 CHIKYU
 KAIMEI
 SHINSEI MARU
 HAKUHO MARU

Information of the Submersibles
 KAIKO
 SHINKAI 2000
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 6K Sonar DEEP TOW
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 POWER GRAB SAMPLER (SHELL)
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Cruise ID:

Go to a Dive Information

Dive ID:



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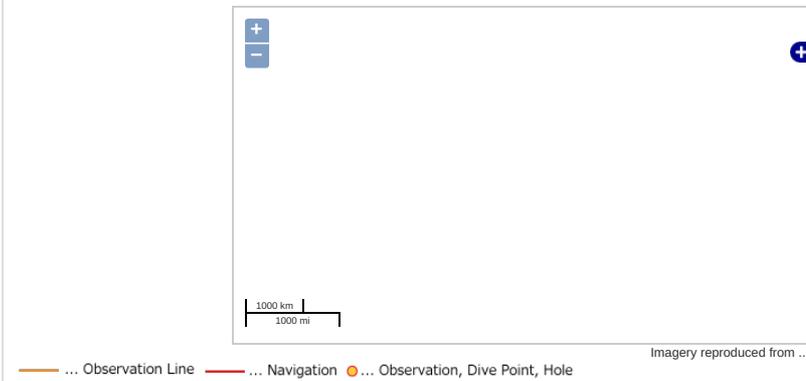
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Observation Map

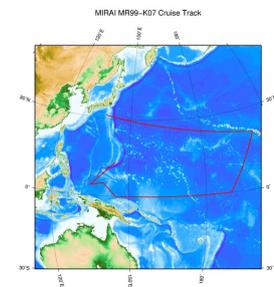


Data List

File names

MR99-K07_pco2.zip

Related Information



[Enlarge Image](#)

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Data Policy
What's New
Update History
Feeds

Lists
Publication List
Amount of Public Info.
Data
Map Search
Data Tree
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