

MIRAI MR13-06 Leg1 Concentration of carbon dioxide and methane in the atmosphere and surface seawater

Last Modified: 2018-01-24

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

Cruise ID: [MR13-06 Leg1](#)

Concentration of carbon dioxide and methane in the atmosphere and surface seawater : Processed (PI)

Data Policy: [JAMSTEC](#)

Observation Items:

Science Keywords:

Data Information

Seawater drawn continuously at ca. 4.5m depth was introduced into a shower-type equilibrator. The seawater-equilibrated air was introduced into a Cavity Ring-Down Spectroscopy (CRDS).

Air sample drawn from the bow of the ship was dried in the same manner and was introduced into the CRDS.

Cruise Report

http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR13-06_leg1-2_all.pdf

For Using Data

Principal Investigator

Naohiro Kosugi (Meteorological Research Institute)

Use Constraints

It is recommended to contact the above investigator before use for publication.

Data Citation

It is recommended to contact the above investigator before use for publication.

Instrument

Instrument:

pCO2 and pCH4 measurement system

Instrument Information:

Instrument: pCO2 and pCH4

measuring system; Nippon ANS Ltd.

Method: Cavity Ring-Down

Spectroscopy (CRDS); Picarro,

G2301/Equilibrator: showerhead-type

Standard scale: WMO scale



Data Format

The data was formatted as comma-separated-value (.csv) file.

01st column: Date and time [UTC]

02nd column: Latitude [deg, negative value means south latitude]

03rd column: Longitude [deg, XXX degrees west was represented as (360 - XXX)]

04th column: Sea surface temperature [degC]

05th column: Quality flag (QF) of sea surface temperature

06th column: Sea surface salinity

07th column: QF of sea surface salinity

08th column: Atmospheric CO2 concentration [ppmv]

09th column: QF of atmospheric CO2 concentration

10th column: Sea surface CO2 concentration [ppmv]

11th column: QF of sea surface CO2 concentration

12th column: Atmospheric CH4 concentration [ppmv]

13th column: QF of atmospheric CH4 concentration

14th column: Sea surface CH4 concentration [ppmv]

15th column: QF of sea surface CH4 concentration

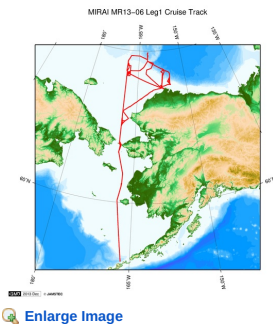
QF 2(good): Data was acquired properly and the value was good.

QF 3(questionable): Data was acquired properly but the value was problematic.

QF 4(bad): Data was not acquired properly.

QF 9(no data): No data was acquired.

Related Information



MR13-06 Leg1

Ship Name: MIRAI

Period: 2013-08-28 - 2013-10-07

Chief Scientist: Shigeto Nishino (JAMSTEC)

Project Name: [Arctic Ocean Climate System Reaserch]

Proposal ▶ Study on environmental changes in the sea-ice reduction regions of the Arctic Ocean

Title:

Update History

2018-01-24	An observation data was registerd.
2018-01-23	An observation data was registerd.
2017-12-18	An observation data was registerd.

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Privacy Policy

Application for Data and

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Data Policy

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Update History

Feeds

Lists

Publication List

Amount of Public Info.

Data

Map Search

Data Tree

Detailed Search

Information of the Ships

NATSUSHIMA

KAIYO

YOKOSUKA

MIRAI

KAIREI

CHIKYU

KAIMEI

SHINSEI MARU

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

Go to a Cruise Information

Cruise ID:

Go to a Dive Information

Dive ID:

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JAMSTEC

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海洋研究開発機構
JAPAN AGENCY FOR MARINE-EARTH SCIENCE AND TECHNOLOGY

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Science Keywords:

Observation Map



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

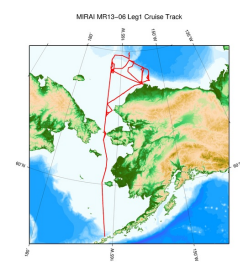
Data List

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File names

☐ MR13-06_leg1_Surface_CO2_CH4_data.csv

Related Information



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[What's New](#)
[Update History](#)
[Feeds](#)

[Lists](#)
[Publication List](#)
[Amount of Public Info.](#)

[Data](#)
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