MIRAI MR14-05 Concentration of carbon dioxide and methane in the atmosphere and surface seawater

Last Modified: 2018-01-24

ReadMe | Observation Data

Cruise ID: MR14-05

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

Data Policy: JAMSTEC

Observation Items:

Science Keywords:

Data Information

Concentration of carbon dioxide (CO2) and methane (CH4) in the atmosphere and surface seawater are presented. The concetration in surface seawater represents. Output was calibrated daily by measuring 3 sets of gas cylinders which has known concentration of CO2 and CH4.

Cruise Report

http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR14-05_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:
CO2 and pCH4 measuring system;
Nippon ANS Ltd Greenhouse Gas
Analyzer; Los Gatos Research
Showerhead-type equiliburator
Instrument Information:
Air sample drawn from the bow of the
ship was dried by magnesium
perchlorate and introduced into the
cavity-ringdown spectroscopy
measurement system (CRDS).
Seawater was drawn continuously at
ca. 4.5m depth and introduced into a
shower-type equilibrator. The
seawater-equilibrated air was
introduced into CRDS.

NO IMAGE

Data Format

The date was formated as commna-separated-value (.csv) file.
01st column: Date and time [UTC yyyy/mm/dd hh:mm]
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: Atmospheric CH4 concentration [ppmv]
11th column: QF of atmospheric CH4 concentration
12th column: Sea surface CO2 concentration [ppmv]
13th column: QF of sea surface CO2 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 probrematic due to exhaust from ship and unachievement of the equilibrium
QF 4(Bad): Data was not acquired properly.
QF 9(no data): No data was acquired.

Related Information

Enlarge Image

MR14-05
Ship Name: MIRAI
Period: 2014-08-31 - 2014-10-10
Chief Scientist: Jun Inoue (JAMSTEC)
Project Name: [Arctic Ocean Climate System Reaserch]
Proposal Title: ▶ Predictability study of Arctic cyclones

Update History

2018-01-24	An observation data was registerd.
2016-11-30	An observation data was registerd.

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Science Keywords:

Observation Map

Imagery reproduced from ...

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

Data List

Add to Basket

File names
MR14-05_CO2_CH4.csv

Related Information

Enlarge Image

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