

MIRAI MR16-06 Atmospheric CO₂, CH₄ and CO mixing ratios

Last Modified: 2018-11-30

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Cruise ID: [MR16-06](#)

Atmospheric CO₂, CH₄ and CO mixing ratios : Processed (PI)

Data Policy: [JAMSTEC](#)

Observation Items:

Science Keywords:

Data Information

Atmospheric CO₂, CH₄ and CO mixing ratios observed during a R/V Mirai Arctic Ocean cruise (MR16-06) in August-September 2016. The air sample, drawn from an air intake placed at the front of the starboard compass deck, was passed through a thermoelectric dehumidifier and a Nafion® tube dryer to reduce the water vapor, and then introduced in the analyzer. Three standard gases stored in 3 cylinders were sequentially introduced into the analyzer every 25 hours for the calibration. These CO₂, CH₄, and CO mixing ratios were determined against NIES's original standard scales.

Cruise Report

http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR16-06_all.pdf

For Using Data

Principal Investigator

Yasunori Tohjima (National Institute for Environmental Studies)

Use Constraints

No constraints.

Data Citation

There is no citation at the present. Please contact the data submitter (Yasunori Tohjima; tohjima@nies.go.jp) when the data are used for any publications.

Please mention that this cruise was conducted under the Arctic Challenge for Sustainability (ArCS) Project, which was funded by the Ministry of Education, Culture, Sports, Science and Technology of Japan (MEXT).

Instrument

Instrument:

Cavity ring-down spectroscopy analyzer (CRDS)

Instrument Information:

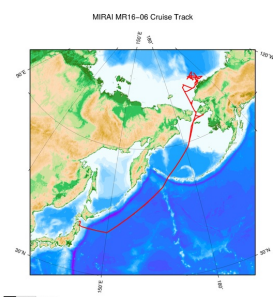
Atmospheric CO₂, CH₄, CO and H₂O analyzer based on wavelength-scanned cavity ring-down spectroscopy technique. (Picarro Inc., CA, USA, Model G-2401)



Data Format

Comma-delimited text data. Date (UTC), Latitude (deg. N), Longitude (deg. E), CO₂ mixing ratio (ppm), standard deviation, number, CH₄ mixing ratio (ppb), standard deviation, number, CO mixing ratio, standard deviation, and number. Each mixing ratio represents 1-hour average.

Related Information



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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

2018-11-30	An observation data was registerd.
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Cruise ID: **MR16-06**

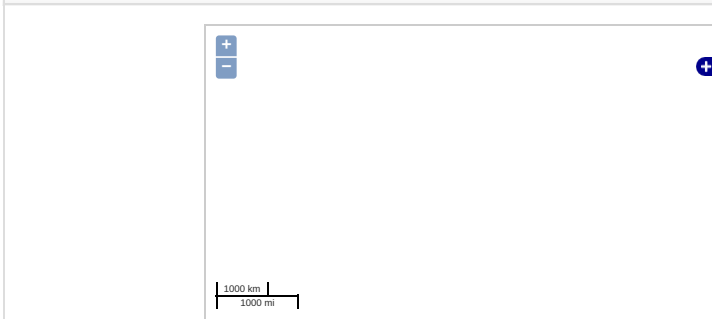
Atmospheric CO₂, CH₄ and CO mixing ratios: Processed (PI)

Data Policy: [JAMSTEC](#)

Observation Items:

Science Keywords:

Observation Map



Imagery reproduced from ...

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

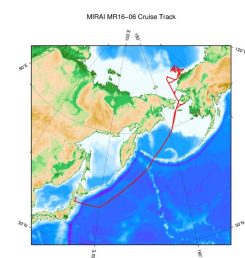
Data List

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File names

☐ MR16-06_CO2-CH4-CO_hourly.TXT

Related Information



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