

## MIRAI MR13-04 Sinking particles

Last Modified: 2015-09-30

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

Cruise ID: [MR13-04](#)

Sinking particles: Processed (PI)

Data Policy: [JAMSTEC](#)

Observation Items:

Science Keywords:

### Data Information

Total mass flux: Estimated from dry weight of sinking particles collected on a membrane filter.

Organic matter content: Estimated from weight loss by combustion at 500 deg-C for 24 hours.

Lithogenic matter content: Calculated from aluminum (Al) content. Al was determined by an ICP-AES with JG-1a (granodiorite, AIST) and Jk-1 (lake sediment, AIST) as reference materials.

Biogenic carbonate content: Calculated from calcium (Ca) and Al contents. Ca and Al contents were determined by an ICP-AES with JG-1a (granodiorite, AIST) and Jk-1 (lake sediment, AIST) as reference materials.

Biogenic silica content: Biogenic silica was extracted by sodium carbonate solution, and silicon concentration in the extract was determined using a spectrophotometer.

Activities of radionuclides: Radiocesium (Cs-134, and Cs-137) and lead-210 (Pb-210) were determined by gamma spectrometry with using HPGe semiconductor detector. MX033U8PP standard source (JRIA) was used for calibration of the detector.

### Cruise Report

[http://www.godac.jamstec.go.jp/catalog/data/doc\\_catalog/media/MR13-04\\_all.pdf](http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR13-04_all.pdf)

### For Using Data

#### Principal Investigator

Shigeyoshi Otsuka (Japan Atomic Energy Agency)

#### Use Constraints

Citation of the following paper is required.

#### Data Citation

Otsuka, S., et al., Vertical and Lateral Transport of Particulate Radiocesium off Fukushima. Environ. Sci. Tech., 48, 12595-12602 (2014).

### Instrument

Instrument:

Spectrophotometer, ICP-AES, HPGe semiconductor detector

Instrument Information:

Spectrophotometer : Shimadzu UV-1200

ICP-AES : SEIKO SII SPS3500

HPGe semiconductor detector :

ORTEC GEM20P4, ORTEC LOAX-51370/20P



### Sample

Sinking particles

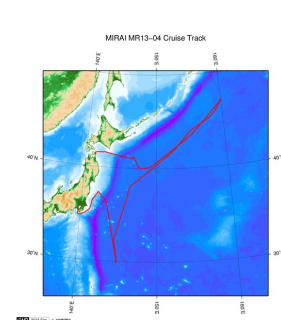
### Sample ID

MR13-04-P-FS1-14

### Data Format

Microsoft excel

### Related Information



[Enlarge Image](#)

### MR13-04

Ship Name: MIRAI

Period: 2013-07-09 - 2013-07-29

Chief Scientist: Makio Honda (JAMSTEC)

Project Name: [Station K2, Station S1, Station KEO, Station KNOT]

Proposal ▶ Change in material cycles and ecosystem by the climate change and its feedback

Title:

### Update History

2015-09-30 An observation data was registerd.

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**What's New**  
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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**  
JAPAN AGENCY FOR MARINE-EARTH SCIENCE AND TECHNOLOGY

国立研究開発法人  
海洋研究開発機構

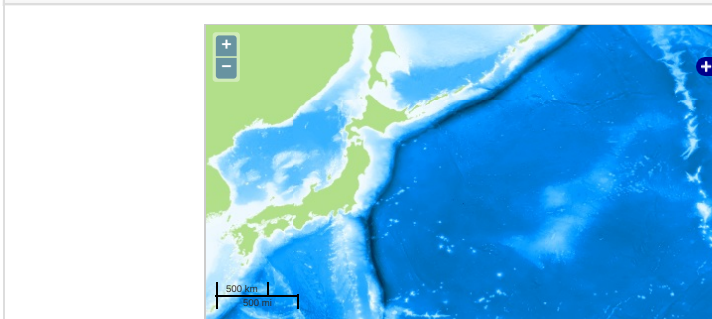
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### Observation Map



Imagery reproduced from ...

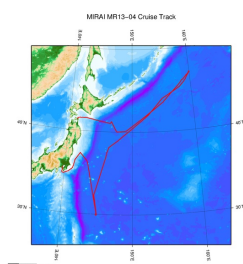
... Observation Line    ... Navigation    ... Observation, Dive Point, Hole

### Data List

#### File names

☐ MR13-04-P-FS1-14.xlsx

### Related Information



[Enlarge Image](#)

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