



R/V Kaiyo “Cruise Report”

KY14-02

ROV investigation into seafloor hydrothermal fluid and
high-level CO₂ venting systems, Okinawa Trough

Feb. 02, 2014 - Feb. 13, 2014

Japan Agency for Marine-Earth Science and Technology
(JAMSTEC)

* There is no prescribed format. Images such as photographs may be included.

•Contents

1. Cruise Information

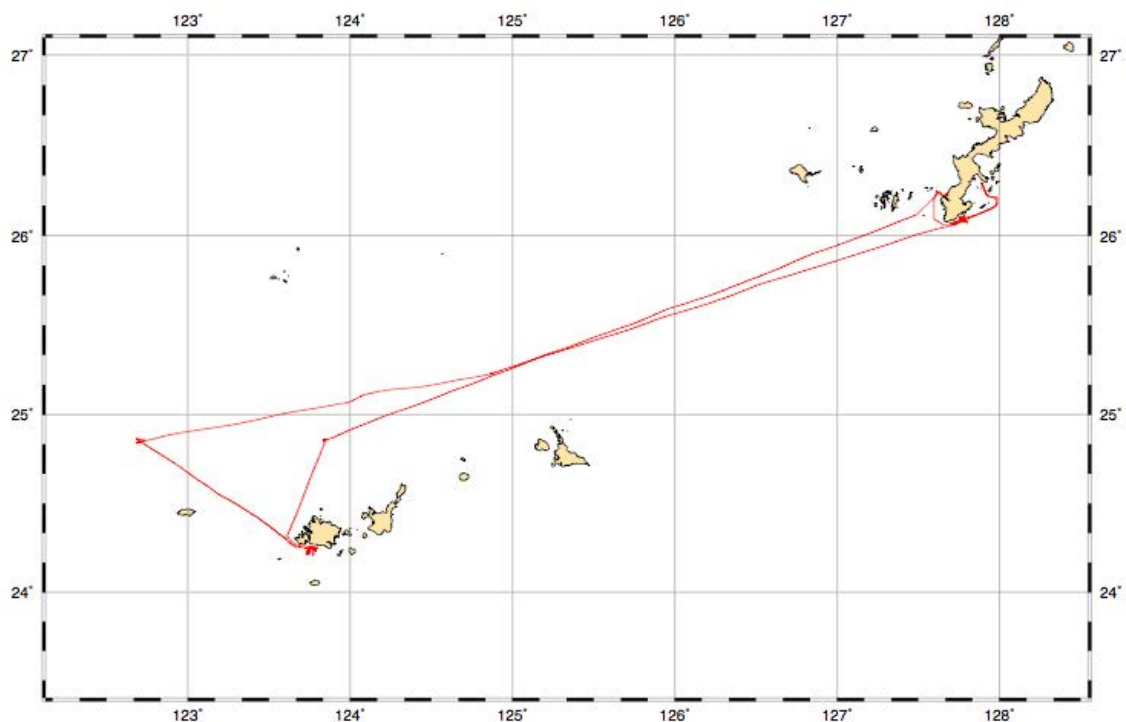
2. Researchers

3. Observation

4. Notice on Using

1. Cruise Information

- Cruise ID: KY14-02
- Name of vessel: R/V Kaiyo
- Title of the cruise: ROV investigation into seafloor hydrothermal fluid and high-level CO₂ venting systems.
- Title of proposal: Comparative study of seafloor massive sulfide deposits with the Kuroko-type VMS deposit on land: Linkage between back-arc rifting and ore genesis
Development of isotope geochemical and stripping voltammetrical exploration methods for seafloor hydrothermal mineral deposits using mercury as the target element.
The survey of liquid CO₂ venting on the seafloor—Analogy of the detection of the CO₂ leak from Carbon dioxide Capture and Storage (CCS) site, and investigation of the effect on the microbial ecosystem—
- Cruise period: 2014.02.02 - 2014.02.13
- Ports of call: Naha- Naha
- Research area: Hatoma, Daiyon-Yonaguni, and Irabu hydrothermal fields, Okinawa Trough.
- Research Map



2. Researchers

- Chief scientist: KAWAGUCCI, Shinsuke [JAMSTEC]
- Representative of the Science Party: NOZAKI, Tatsuo [JAMSTEC]
MARUMO, Katsumi [Toyama University]
IJIRI, Akira [JAMSTEC]
- Science party:

Shinsuke KAWAGUCCI	Japan Agency for Marine-Earth Science and Technology
Tatsuo NOZAKI	Japan Agency for Marine-Earth Science and Technology
Akira IJIRI	Japan Agency for Marine-Earth Science and Technology
Shuichi SHIGENO	Japan Agency for Marine-Earth Science and Technology
Masahiro YAMAMOTO	Japan Agency for Marine-Earth Science and Technology
Yoshiyuki NAKANO	Japan Agency for Marine-Earth Science and Technology
Yoko OOTOMO	Japan Agency for Marine-Earth Science and Technology
Chong CHEN	Japan Agency for Marine-Earth Science and Technology, University of Oxford, and British Antarctic Survey, Cambridge
Masako NAKAMURA	Okinawa Institute of Science and Technology
Akinori TAKEUCHI	National Institute for Environmental Studies
Wen Hsin yi (Linda)	The University of Tokyo
Taisei FUJIWARA	Okayama University of Science
Saki TSUTSUMI	Kyusyu University
Shuhei TOTSUKA	Kyusyu University
Shotaro TAKANO	Kyoto University
Yuma NUNOKAWA	Toyama University
Yuji WATANABE	Toyama University
Sawako HESHIKI	Ryukyu University
Satomi MINAMIZAWA	Nippon Marine Enterprises, LTD.

3. Observation

We conducted ROV Hyper Dolphin dives at Hatoma (#1621), Daiyon-Yonaguni (#1622-1623), and Irabu (#1624) hydrothermal fields. Rocks, ores, hydrothermal fluids, seawater, and benthic animals were collected by appropriate devices. Several sensors were utilized to characterize chemical features of water column around hydrothermal vents.

4. Notice on Using

Notice on using: Insert the following notice to users regarding the data and samples obtained.

This cruise report is a preliminary documentation as of the end of the cruise.

This report may not be corrected even if changes on contents (i.e. taxonomic classifications) may be found after its publication. This report may also be changed without notice. Data on this cruise report may be raw or unprocessed. If you are going to use or refer to the data written on this report, please ask the Chief Scientist for latest information.

Users of data or results on this cruise report are requested to submit their results to the Data Management Group of JAMSTEC.