



R/V Kaimei Cruise Report
KM24-15C

Seafloor observation for liquid CO₂ analysis

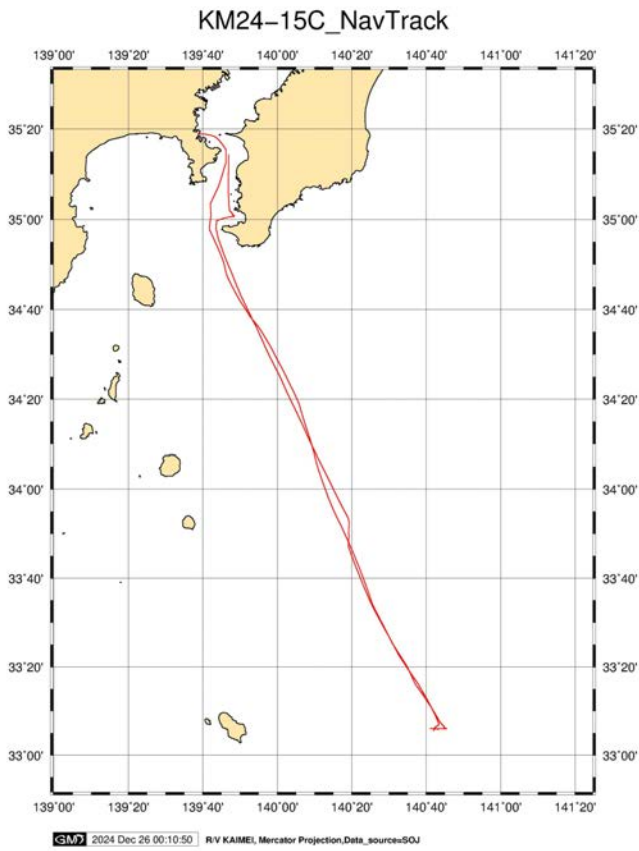
Off Hachijo

24 Dec 2024 – 26 Dec 2024

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

1. Cruise Information

- Cruise ID KM24-15C
- Name of vessel R/V Kaimei
- Title of cruise Seafloor observation for liquid CO₂ analysis
- Chief Scientist [Affiliation] Shinsuke Kawagucci [JAMSTEC]
- Cruise period 24 Dec 2024 – 26 Dec 2024
- Ports of departure / call / arrival Yokosuka - Yokosuka
- Research area Off Hachijo
- Research map



2. Research Proposal and Science Party

- Title of proposal
Seafloor observation for liquid CO2 analysis
- Representative of Science Party [Affiliation]
Shinsuke Kawagucci [JAMSTEC]
- Science Party (List) [Affiliation, assignment etc.]

Shinsuke Kawagucci	[JAMSTEC]
Kazuya Kitada	[JAMSTEC]
Norio Miyamoto	[JAMSTEC]
Yojiro Ikegawa	[Electric Power Development]
Masaharu Takabatake	[Electric Power Development]
Yasuyuki Murakami	[KAIYO DENSHI KOGYO CO.,LTD.]
Ki Han	[KAIYO DENSHI KOGYO CO.,LTD.]
So Onozawa	[KAIYO DENSHI KOGYO CO.,LTD.]
Naoki Fujiwara	[KAIYO DENSHI KOGYO CO.,LTD.]

KAIMEI crew

Captain	KIMURA NAOTO
Chief Officer	SUZUKI AKIRA
2nd Officer	KIKUCHI ASAMI
3rd Officer	IKEDA YUYA
Jr.3rd Officer	MIYAMAE Toshihiko
Chief Engineer	FUNAE KOJI
1st Engineer	YASUE YOICHI
2nd Engineer	SHIMADA KEITO
3rd Engineer	SATO DAITO
Jr.3rd Engineer	IKEGAMI So
Chief Electronic Operator	TAKAHASHI MASAMOTO
2nd Electronic Operator	MAEDA KOHEI
3rd Electronic Operator	YOKOI Seiya
Boat Swain	YOSHINO YUKI
Able Seaman	MIYASHITA TAKUYA
Able Seaman	KURIHARA AKIRA
Able Seaman	OHJIRI YUTA
Able Seaman	MIURA TAKUMI
Sailor	ISOBE KEISUKE
Sailor	SUMOMOZAWA KAZUYA
Sailor	YAMADA Ryoya
No.1 Oiler	OISHI HIROYUKI
Oiler	TANIGUCHI DAISUKE
Oiler	FUJIWARA MASAYUKI
Oiler	SUMITOMO SHOTARO
Oiler	KOZAKI MAKOTO
Assistant Oiler	MIZUNO RIKU
Assistant Oiler	HIRAKAWA Souma
Chief Steward	HIRAYAMA KAZUHIRO
Steward	NOJIRI TAKEHIRO
Steward	FUJIMOTO YUMA

KM-ROV Team

Operation Manager	ISHITSUKA TETSUYA
2nd ROV Operator	CHIDA YOSUKE
2nd ROV Operator	GOTO TAKUMA
2nd ROV Operator	KOGUMA ATSUSHI
2nd ROV Operator	OKUHIRA YUTO
3rd ROV Operator	SASAKI HARUKA

3. Research/Development Activities

- KM-ROV dive #301 and #302

Carbon storage into subseafloor is expected as one of the solutions for climate crisis triggered by atmospheric CO₂ accumulation. To understand subseafloor environment is crucial for accurate evaluation of potential for the subseafloor carbon storage. To investigate physical, chemical, and biological properties of (sub)seafloor environment, KM-ROV #301 and #302 dives were conducted at 1500 m depth off Hachijo, a potential site for the carbon storage. During the dives, seawater and core samplings as well as visual observation were conducted while in situ sensors were tested. A seafloor marker wrapped by reflective materials was deployed at the site for future revisit.

Date	Local Time	Note	Noon Position Weather/Wind/Sea Condition
24-Dec-24	15:30	Scientists party onboard R/V KAIMEI	JAMSTEC
	16:30	Let go all shore line & left YOKOSUKA port	35-19.1N,139-39.0E
	17:30-18:15	Onboard lecture for safety and onboard life	Weather: -
	18:15-18:25	Scientists meeting	Wind direction/force: -
			Wave scale: -
			Swell scale: -
			Visibility(miles): -
25-Dec-24	9:05	Arrived at research area	Off Hachijyo
	9:30	Released XBT	33-06.0N,140-42.2E
	8:05	Hoisted down "KM-ROV"	Weather: c
	8:11	Launched "KM-ROV" #301	Wind direction/force: East/3
	9:06	"KM-ROV" landed on the sea bottom (D=1,499m)	Wave scale: 2
	12:58	"KM-ROV" left the sea bottom (D=1,498m)	Swell scale: 2
	13:46	Hoisted up "KM-ROV"	Visibility(miles): 8
	13:53	Recovered "KM-ROV" & finished the operation	
	14:36	Hoisted down "KM-ROV"	
	14:41	Launched "KM-ROV" #302	
	15:26	"KM-ROV" landed on the sea bottom (D=1,497m)	
	16:13	"KM-ROV" left the sea bottom (D=1,499m)	
	16:58	Hoisted up "KM-ROV"	
	17:06	Recovered "KM-ROV" & finished the operation	
17:50	Left research area		
26-Dec-24	11:00	Arrived at Yokosuka, then completed voyage KM24-15C	

4. Notice on Using

This cruise report is a preliminary documentation as of the end of cruise.
This report is not necessarily corrected even if there is any inaccurate description (i.e. taxonomic classifications). This report is subject to be revised without notice. Some data on this report may be raw or unprocessed. If you are going to use or refer the data on this report, it is recommended to ask the Chief Scientist for latest status.
Users of information on this report are requested to submit Publication Report to JAMSTEC.

<https://www.godac.jamstec.go.jp/darwin/en/note.html#report>

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