

For Using Data

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Use Constraints Scientific research or education purpose only.
Data Citation "Kawai, Y. (2022), R/V SHINSEI MARU Cruise report KS-22-10. JAMSTEC. doi:10.17596/0003553"

Quality level

Processed (PI)

Instrument

Fluorometer



Instrument Information :

Model 10-AU-005 manufactured by Turner Designs

Sample type

Seawater

Overview

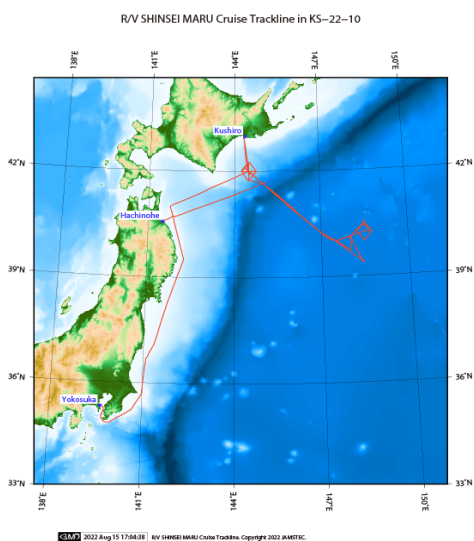
Seawater samples for chlorophyll a (chl-a) were collected into 250ml brown polyethylene bottles from a bucket at the surface, and from Niskin bottles at 9 depths between 10 and 200 dbar including a chl-a maximum layer, which was determined by a fluorometer (Seapoint Sensors, Inc.) installed in the CTD system. All seawater samples were gently filtrated by low vacuum pressure (<0.02 MPa) through Whatman GF/F filter (diameter 25 mm) in the dark room on board. The filters were stored in the freezer of the vessel, and sent to JAMSTEC Yokosuka HQ just after the cruise. Phytoplankton pigments retained on the filters were extracted in a polypropylene tube with 7 ml of N,N-dimethylformamide in the laboratory of JAMSTEC. The tubes were stored at -20°C under the dark condition to extract chl-a at least for 96 hours. Fluorescence of each sample were measured by Turner Designs fluorometer (10-AU-005), which was calibrated against a pure chl-a (Sigma chemical Co.). To estimate the chl-a concentrations, we applied to the fluorometric "Non-acidification method" (Welschmeyer, 1994).

Welschmeyer, N. A. (1994): Fluorometric analysis of chlorophyll a in the presence of chlorophyll b and pheopigments. *Limnol. Oceanogr.*, 39, 1985-1992

Data format

Csv file

Related Information



KS-22-10

Ship Name:

SHINSEI MARU

Period:

2022/07/15 - 2022/08/02

Chief Scientist:

Yoshimi Kawai (JAMSTEC)

Proposal:

Simultaneous observations with an aircraft on marine aerosols and their effects on cloud microphysics in the Northwestern Pacific