

For Using Data

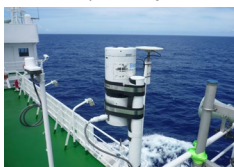
Data Policy	JAMSTEC
Principal Investigator	Data Management Office
Use Constraints	See Terms and Conditions about constrain of use.
Data Citation	See Terms and Conditions about data citation.

Quality

Raw

Instrument

Surface photosynthetically available radiation (MR15-01 -)



Overview

Photosynthetically available radiation (PAR) in the air was acquired by the radiometer PUV-510B, which was set up on the deck of the anti-rolling system. In addition, Ultraviolet irradiance (4 wavelengths) are also collected since May 2015 (after MR15-01 cruise).

Measurement System

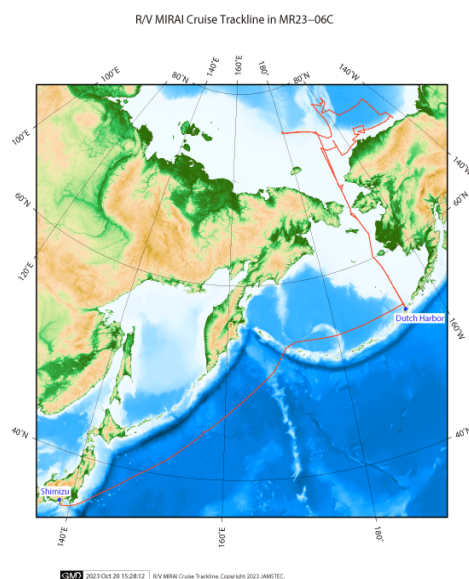
Manufacturer :	Biospherical Instruments Inc.
Type :	PUV-510B
Logging rate :	6 [second]
Location :	Starboard side of the deck on the anti-rolling system (18 m from the sea surface)
[PAR]	
Measurement wavelength :	400 - 700 [nm]
[Ultraviolet irradiance]	
Measurement wavelength :	305, 320, 340, 380 [nm]

Note

File naming rule for PAR_YYYYMMDD.txt.

PAR_ :	Fixed as 'PAR_'
YYYY :	Recording start Year (UTC)
MM :	Recording start Year (UTC)
DD :	Recording start day (UTC)

Related Information



MR23-06C

Ship Name: MIRAI
Period: 2023/08/25 - 2023/10/04
Chief Scientist: Amane Fujiwara (JAMSTEC)
Proposal: Arctic Expedition for Environmental Studies
Observational study of the Arctic environmental changes: Pacific-Arctic interaction, biogeochemical transport, mixing and marine ecosystem

Research and development of under-ice observation technology

Quantification of the microplastic inventory in the waters of the western Arctic Ocean and microplastic influx from the Pacific Ocean

Changes in clouds and aerosols over the ice-free Arctic Ocean

Possibility of the expanding distribution in plankton and fishes associated with sea ice reduction in the Pacific sector of the Arctic Ocean

Observation of air-sea-wave-ice interaction over the Pacific Arctic region

Investigating the physical and ecophysiological basis of fall phytoplankton blooms in the Chukchi and Beaufort seas

Nitrogen Fixation in a Changing Arctic Ocean An Overlooked Source of Nitrogen

Exploring microplankton interactions and their functional roles in a changing Arctic

Determining the contribution of siphonophores to mesopelagic backscatter in the Arctic

Better understanding of climate-driven changes of biogeochemical dynamics in the western Arctic Ocean via R/V Mirai 2023 Cruise A perspective of stable carbon isotope

Temporal variations of the carbonate chemical components the Arctic Ocean within summertime

Observation of water vapor isotopic ratios

Observation of atmospheric greenhouse gases and related species in the North Pacific region

Format Description for Sea-surface PAR (MIRAI)

Comma Separated Value

No.	Content	Remarks
1	DATE	Year, Month, Day [YYYYMMDD]
2	TIME	Hour, Minute, Second [hhmmss]
3	PAR	PAR (Variable length, Floating-point, Exponential Form) [microEinsteins/cm^2/sec]
4	UV (305nm)	Ultraviolet Irradiance; 305nm (Variable length, Floating-point, Exponential Form) [microW/cm^2/nm]
5	UV (320nm)	Ultraviolet Irradiance; 320nm (Variable length, Floating-point, Exponential Form) [microW/cm^2/nm]
6	UV (340nm)	Ultraviolet Irradiance; 340nm (Variable length, Floating-point, Exponential Form) [microW/cm^2/nm]
7	UV (380nm)	Ultraviolet Irradiance; 380nm (Variable length, Floating-point, Exponential Form) [microW/cm^2/nm]