Optics - particle absorption coefficients from RVIB Nathaniel B. Palmer, R/V Roger Revelle NBP-97-8, KIWI8, KIWI9 cruises in the Southern Ocean, 1997-1998 (U.S. JGOFS AESOPS project)

Website: https://www.bco-dmo.org/dataset/2757
Version: December 03, 2002
Version Date: 2002-12-03

Project
» U.S. JGOFS Antarctic Environment and Southern Ocean Process Study (AESOPS)

Program
» U.S. Joint Global Ocean Flux Study (U.S. JGOFS)

Contributors	Affiliation	Role
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Dataset Description

Optics - particle absorption coefficients

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Data Files

File		
optics_ap_KIWI8.csv	(Comma Separated Values (.csv), 148.88 KB) MD5:c3b2824ad2d0f7fb549da410d72c6142	
version December 03, 2002 B. Greg Mitchell and Dariusz Stramski of: University of California San Diego (SIO) Optics - particle absorption coefficients AESOPS cruises		
optics_ap_KIWI9.csv	(Comma Separated Values (.csv), 538.42 KB) MD5:4d52eafd553e012fe50e208ec472ea12	
version December 03, 2002 B. Greg Mitchell and Dariusz Stramski of: University of California San Diego (SIO) Optics - particle absorption coefficients AESOPS cruises		
optics_ap_NBP-97-08.csv	(Comma Separated Values (.csv), 362.44 KB) MD5:0d3646f5ffc49c432b51cc43d37dc20c	
version December 03, 2002 B. Greg Mitchell and Dariusz Stramski of: University of California San Diego (SIO) Optics - particle absorption coefficients AESOPS cruises		

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Parameters

Parameter	Description	Units
cruise_id	cruise designation	
event	event number from event log	
cast_type	CTD = CTD rosette TM = trace metal rosette	
sta	station number from event log	
cast	rosette cast number from event log	
bot	rosette bottle number	
depth_n	nominal depth	meters
ap_xxx	particle absorption coefficient at xxx wavelength	1/meters

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Instruments

Dataset-specific Instrument Name	Niskin Bottle
Generic Instrument Name	Niskin bottle
Dataset-specific Description	CTD clean rosette (Niskin) bottles were used to collect water samples
Generic Instrument Description	A Niskin bottle (a next generation water sampler based on the Nansen bottle) is a cylindrical, non-metallic water collection device with stoppers at both ends. The bottles can be attached individually on a hydrowire or deployed in 12, 24, or 36 bottle Rosette systems mounted on a frame and combined with a CTD. Niskin bottles are used to collect discrete water samples for a range of measurements including pigments, nutrients, plankton, etc.

Dataset-specific Instrument Name	Trace Metal Bottle
Generic Instrument Name	Trace Metal Bottle
Dataset-specific Description	Trace metal (TM) clean rosette bottles were used to collect water samples.
Generic Instrument Description	Trace metal (TM) clean rosette bottle used for collecting trace metal clean seawater samples.

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Deployments

NBP-97-08

Website	https://www.bco-dmo.org/deployment/57722
Platform	RVIB Nathaniel B. Palmer
Report	http://usjgofs.whoi.edu/aesops/p4.html
Start Date	1997-11-05
End Date	1997-12-13
Description	Ross Sea Process Study 4 SeaWiFS transmits images to U.S. JGOFS scientists aboard the Palmer, for first time on November 23, 1997. **Methods & Sampling** PI: Greg Mitchell of: Scripps Institution of Oceanography (UCSD) dataset: Optics - particle absorption coefficients dates: November 09, 1997 to December 11, 1997 location: N: -60.1622 S: -76.6325 W: 168.9257 E: -169.9655 project/cruise: AESOPS/NBP97-8 - Process 4 cruise ship: R/V Nathaniel B. Palmer Methodology This data is associated with the B. Greg Mitchell, Dariusz Stramski, and Rick A. Reynolds AESOPS proposal entitled: "Optical measurements and modeling to estimate concentrations and fluxes of organic matter within the Southern Ocean" The U.S. JGOFS DMO has compiled a list of event numbers for which there is no corresponding bottle file data.

KIWI8

Website	https://www.bco-dmo.org/deployment/57726
Platform	R/V Roger Revelle
Report	http://usjgofs.whoi.edu/aesops/RRs2.html
Start Date	1998-01-08
End Date	1998-02-08
Description	Polar Front Survey II. Additional information about this cruise can be found at https://usjgofs.whoi.edu/aesops/aboutrr8.html **Methods & Sampling** PI: Greg Mitchell of: Scripps Institution of Oceanography (UCSD) dataset: Optics - particle absorption coefficients dates: January 12, 1998 to January 28, 1998 location: N: -56.9998 S: -67.7842 W: -170.1117 E: -169.9983 project/cruise: AESOPS/RR-KIWI-8 - APFZ Survey 2 cruise ship: R/V Roger A. Revelle Methodology This data is associated with the B. Greg Mitchell, Dariusz Stramski, and Rick A. Reynolds AESOPS proposal entitled: "Optical measurements and modeling to estimate concentrations and fluxes of organic matter within the Southern Ocean" The U.S. JGOFS DMO has compiled a list of event numbers for which there is no corresponding bottle file data.

KIWI9

Website	https://www.bco-dmo.org/deployment/57727
Platform	R/V Roger Revelle
Report	http://usjgofs.whoi.edu/aesops/RRp2.html
Start Date	1998-02-13
End Date	1998-03-19
Description	Polar Front Process II. Additional information about this cruise can be found at https://usjgofs.whoi.edu/aesops/aboutrr9.html **Methods & Sampling** PI: Greg Mitchell of: Scripps Institution of Oceanography (UCSD) dataset: Optics - particle absorption coefficients dates: February 16, 1998 to March 14, 1998 location: N: -52.966 S: -71.3072 W: -174.733 E: -165.9148 project/cruise: AESOPS/RR-KIWI-9 - APFZ Process 2 cruise ship: R/V Roger A. Revelle Methodology This data is associated with the B. Greg Mitchell, Dariusz Stramski, and Rick A. Reynolds AESOPS proposal entitled: "Optical measurements and modeling to estimate concentrations and fluxes of organic matter within the Southern Ocean" The U.S. JGOFS DMO has compiled a list of event numbers for which there is no corresponding bottle file data.

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Project Information

U.S. JGOFS Antarctic Environment and Southern Ocean Process Study (AESOPS)

Website: http://usjgofs.whoi.edu/research/aesops.html

Coverage: Southern Ocean, Ross Sea

The U.S. Southern Ocean JGOFS program, called Antarctic Environment and Southern Ocean Process Study (AESOPS), began in August 1996 and continued through March 1998. The U.S. JGOFS AESOPS program focused on two regions in the Southern Ocean: an east/west section of the Ross-Sea continental shelf along

76.5°S, and a second north/south section of the Southern Ocean spanning the Antarctic Circumpolar Current (ACC) at ~170°W (identified as the Polar Front). The science program, coordinated by Antarctic Support Associates (ASA), comprised eleven cruises using the R.V.I.B Nathaniel B. Palmer and R/V Roger Revelle as observational platforms and for deployment and recovery of instrumented moorings and sediment-trap arrays. The Ross-Sea region was occupied on six occasions and the Polar Front five times. Mapping data were obtained from SeaSoar, ADCP, and bathymetric systems. Satellite coverage was provided by the NASA SeaWiFS and the NOAA/NASA Pathfinder programs.

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Program Information

U.S. Joint Global Ocean Flux Study (U.S. JGOFS)

Website: http://usjgofs.whoi.edu/

Coverage: Global

The United States Joint Global Ocean Flux Study was a national component of international JGOFS and an integral part of global climate change research.

The U.S. launched the Joint Global Ocean Flux Study (JGOFS) in the late 1980s to study the ocean carbon cycle. An ambitious goal was set to understand the controls on the concentrations and fluxes of carbon and associated nutrients in the ocean. A new field of ocean biogeochemistry emerged with an emphasis on quality measurements of carbon system parameters and interdisciplinary field studies of the biological, chemical and physical process which control the ocean carbon cycle. As we studied ocean biogeochemistry, we learned that our simple views of carbon uptake and transport were severely limited, and a new "wave" of ocean science was born. U.S. JGOFS has been supported primarily by the U.S. National Science Foundation in collaboration with the National Oceanic and Atmospheric Administration, the National Aeronautics and Space Administration, the Department of Energy and the Office of Naval Research. U.S. JGOFS, ended in 2005 with the conclusion of the Synthesis and Modeling Project (SMP).

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