

TARA-MED (June - September 2014)

Contact:

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Notes:

1 Filters extracted in 100% methanol, disrupted by sonication and clarified by filtration (GF/F Whatman). Extraction time lasted 2 hours.

2 Analysis by HPLC was carried out the same day. Instrument: HPLC Agilent Technologies 1200

3 undetected pigments are represented by "LOD" (Limit of detection, see Note 7)

4 The analytical procedure is described in:

Ras J, Uitz, J, and H. Claustre (2008).
Spatial variability of phytoplankton
pigment distributions in the Subtropical
South Pacific Ocean:
comparison between in situ and

5 Detection of carotenoids and chlorophylls c and b: 450 nm, chlorophyll a and derivatives: 676 nm, bchl a : 770 nm.

6 Performance metrics:

Tchl a injection precision : 0.91%	Calibration precision: 0.4%
Tchl a accuracy (SeaHARRE-6): 3.72%	Calibration accuracy: 0.3%
Retention time precision: 0.54%	

7 Limits of detection : calculated in ng per injection and as the concentrations corresponding to a signal:noise ratio of 3 and for a filtered volume of 1 L.

8 Analysts: Celine Dimier and Josephine Ras

9 Quality control evaluation of the peaks: QA=1 = "good"

QA=2 = "acceptable"

QA=3 = "questionable"

10 9 samples were deleted from the database during quality control procedures (see "deleted samples" sheet)

Titles	Description	Units	detection wavelength (nm)	LOD ng/inj	LOD for 1 L filtered (in mg.m ⁻³)
Date of analysis	UTC	dd/mm/yyyy			
Cruise or Project					
Ship					
Latitude					
Longitude					
Sampling date	UTC	dd/mm/yyyy			
Sampling time		hh:mm			
Sample code					
Station					
Depth	Sampling depth	metres			
Filtered Vol	Filtered volume	Litres			
Chlorophyll c3		mg per cubic metre	450	0.015	0.0002
Chlc3-QA	quality control evaluation	1, 2 or 3			
sum Chlorophyll c2+c1	sum of chlorophyll c1 and c2	mg per cubic metre	450	0.018	0.0002
Chlc2c1-QA	quality control evaluation	1, 2 or 3			
Sum Chlorophyllide a	Chlda + Chlda-like	mg per cubic metre	667	0.019	0.0002
Chlda-QA	quality control evaluation	1, 2 or 3			
Peridinin		mg per cubic metre	450	0.007	0.0001
Peri-QA	quality control evaluation	1, 2 or 3			
Sum Phaeophorbid a	Phda + Phda-like	mg per cubic metre	667	0.011	0.0001
Phda-QA	quality control evaluation	1, 2 or 3			
19'-Butanoyloxyfucoxanthin		mg per cubic metre	450	0.009	0.0001
But-QA	quality control evaluation	1, 2 or 3			

Fucoxanthin		mg per cubic metre	450	0.009	0.0001
Fuco-QA	quality control evaluation	1, 2 or 3			
Neoxanthin		mg per cubic metre	450	0.010	0.0001
Neo-QA	quality control evaluation	1, 2 or 3			
Prasinoxanthin		mg per cubic metre	450	0.009	0.0001
Pras-QA	quality control evaluation	1, 2 or 3			
Violaxanthin		mg per cubic metre	450	0.012	0.0002
Viola-QA	quality control evaluation	1, 2 or 3			
19'-Hexanoyloxyfucoxanthin		mg per cubic metre	450	0.009	0.0001
Hex-QA	quality control evaluation	1, 2 or 3			
Diadinoxanthin		mg per cubic metre	450	0.014	0.0002
Diadino-QA	quality control evaluation	1, 2 or 3			
Alloxanthin		mg per cubic metre	450	0.015	0.0002
Allo-QA	quality control evaluation	1, 2 or 3			
Diatoxanthin		mg per cubic metre	450	0.014	0.0002
Diato-QA	quality control evaluation	1, 2 or 3			
Zeaxanthin		mg per cubic metre	450	0.014	0.0002
Zea-QA	quality control evaluation	1, 2 or 3			
Lutein		mg per cubic metre	450	0.014	0.0002
Lut-QA	quality control evaluation	1, 2 or 3			
Bacteriochlorophyll a		mg per cubic metre	770	0.015	0.0002
Bchl a-QA	quality control evaluation	1, 2 or 3			
Total Chlorophyll b	DV Chlb + Chlb	mg per cubic metre	450	0.004	0.0001
TChlb-QA	quality control evaluation	1, 2 or 3			
Divinyl Chlorophyll a		mg per cubic metre	667	0.013	0.0002
DVChla-QA	quality control evaluation	1, 2 or 3			
Chlorophyll a	Chlorophyll a + allomers + epimers	mg per cubic metre	667	0.013	0.0002
Chla-QA	quality control evaluation	1, 2 or 3			
Total Chlorophyll a	Chla + DV Chla + Chlorophyllid a	mg per cubic metre	667	0.013	0.0002
Tchla-QA	quality control evaluation	1, 2 or 3			
sum Phaeophytin a	Phyt na + Phyt na-like	mg per cubic metre	667	0.008	0.0001
Phyt na-QA	quality control evaluation	1, 2 or 3			
Sum carotenes	beta carotene + a-carotene	mg per cubic metre	450	0.014	0.0002
Tcar-QA	quality control evaluation	1, 2 or 3			

Observations					
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