Dataset name: **Particulate organic matter: Carbon and Nitrogen**

|  |  |
| --- | --- |
| Parameters: | * **Particulate organic carbon concentration**
* **Particulate organic nitrogen concentration**
 |

PROJECT TITLE: **MOBYDICK**

Oceanographic cruise: **MOBYDICK**

Start date: **18/02/2018**

End date: **27/03/2018**

Project manager: **Bernard Quéguiner** bernard.queguiner@mio.osupytheas.fr

Address: **Mediterranean Institute of Oceanolography**

 **Institut Pytheas - Observatoire des Sciences de l'Univers**

 **Bâtiment OCEANOMED, Campus de Luminy, case 901**

 **F-13288 Marseille Cedex 09, France**

Chief scientist: **Ingrid Obernosterer** ingrid.obernosterer@obs-banyuls.fr

Address: **Laboratoire d’Océanographie Microbienne**

 **Observatoire Océanologique de Banyuls sur mer**

 **66650 Banyuls sur mer, France**

 Geographic information: **Indian sector of the Southern Ocean**

 Latitude: **49.5°S – 52.5°S**

 Longitude: **67,0°E – 74.5°E**

Parameter supervisor: **Stéphane Blain**

LOMIC

Observatoire Océanologique de Banyuls sur mer

66650 Banyuls sur mer, France

+33 (0)4 68 88 73 44

stephane.blain@obs-banyuls.fr

Dataset contact: **Stéphane Blain**

LOMIC

Observatoire Océanologique de Banyuls sur mer

66650 Banyuls sur mer, France

+33 (0)4 68 88 73 44

stephane.blain@obs-banyuls.fr

# OPERATIONS

## Sampling device(s)

Water samples were obtained from rosette bottles (12 depths) and from bottle net deployments.

## List of stations sampled

Rosette samples: M2\_1: CTD07; M4\_1: CTD13,17 and18; M3: CTD23 and 26; M2\_2: CTD29 and 30; M1: CTD35 and 38; M4\_2: CTD42 and 44; M2\_3: CTD53; M3\_3: CTD60

Bottle nets: M2\_1: CTD07; M4\_1: CTD11, 13,17 and 18; M3: CTD23 and 26; M2\_2: CTD30; M1: CTD35, 36 and 38; M4\_2: CTD42 and 47; M2\_3: CTD53; M3\_3: CTD61

# INSTRUMENTS

Instrument Type: **CHN Elemental Analyzer**

Manufacturer: **Perkin Elmer**

Model: **CHN 2400**

Instrument Features / Calibration: **N/A**

# DESCRIPTION of PARAMETERS

## Sampling details

From rosette sampling, 4 L of seawater were filtrated onto precalcinated (450°C, 24h) 25 mm Whatman GF/F filters. Filters were then and dried in an oven (40°C, 24h) and stored in glass vials until analysis.

2 samples were collected from each bottlenet sampling. After cod end sample volume measurement, 10 mL samples were filtered onto precalcinated GFF filters as above and then stored in Eppendorf vials until analysis.

## Analytical procedure

After fumigation with pure HCl (10 h) to dissolve inorganic carbon, analysis of organic C and N is made with a CHN elemental analyzer calibrated with acetanelyde (Rembauville *et al.*, 2016).

## Units

* POC and PON concentrations: µmol L–1

## Sensor precision

N/A

## Post-cruise data analysis/treatment required

N/A

## Estimated Date of Delivery

6 months after the cruise

# BIBLIOGRAPHY

Rembauville M., Blain S., Caparros J., Salter I., 2016. Particulate matter stoichiometry driven by microplankton community structure in summer in the Indian sector of the Southern Ocean. *Limnology and Oceanography*, **61**, 1301-1321.