Dataset name: **Dissolved oxygen**

|  |  |
| --- | --- |
| Parameters: | * **Dissolved oxygen 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](mailto:bernard.queguiner@mio.osupytheas.fr)

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**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: **Audrey Guéneuguès**

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# OPERATIONS

## Sampling device(s)

Water samples were obtained from rosette bottles.

## List of stations sampled

M2\_1: CTD–007; M4\_1: CTD–013; M3: CTD–023; M2\_2: CTD–030; M1: CTD–038; M4\_2: CTD–042; M2\_3: CTD–053; M3\_3: CTD–060.

# INSTRUMENTS

Instrument Type: **Potentiometric tritration unit**

Manufacturer: **Methrohm**

Model: **Titrino 716 DMS**

Instrument Features / Calibration: N/A

# DESCRIPTION of PARAMETERS

## Sampling details

Sampling was done according the WOCE recommendations available at <https://www.nodc.noaa.gov/woce/woce_v3/wocedata_1/whp/manuals/pdf/91_1/culber2.pdf>. The volume of the oxygen sampling bottle was 160 mL.

## Analytical procedure

The chemical determination of oxygen concentrations in seawater is based on the method first proposed by Winkler (1888) and modified by Strickland and Parsons (1968). The end point of the titration is determined by potentiometry. The concentration of the titration thiosulfate solution is determined precisely using Iodate standard solution (OSIL).

## Units

* Oxygen concentration: mmol L–1

## Sensor precision

N/A

## Post-cruise data analysis/treatment required

N/A

## Estimated Date of Delivery

Available

# BIBLIOGRAPHY

Strickland J.D.H., Parsons T.R. , 1968). Determination of dissolved oxygen. *in* A Practical Handbook of Seawater Analysis. *Fisheries Research Board of Canada Bulletin*, **167**, 71–75.

Winkler L.W., 1888. Die Bestimmung des im Wasser gelösten Sauerstoffes. *Berichte der deutschen chemischen Gesellschaft*, **21**(2), 2843-2854.