Dataset name: **Diatom spores**

|  |  |
| --- | --- |
| Parameters: | * **Diatom spore induction**
* **Diatom spore germination**
 |

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

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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: **Karine Leblanc**

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# OPERATIONS

## Sampling device(s)

At three sites (M2\_1, M4\_1 and M2-2), samples for spore induction or spore germination exploratory experiments were collected from phytoplankton net (35 µm) vertical tows or bottlenets (see Table 1 below).

## List of stations sampled

**Table 1 : Sampling operations for diatom spores**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Station ID** | **Type of operation** | **Cast ID** | **Spore induction** | **Spore germination** |
| M2\_1 | CTD\_Stock | CTD\_007 | x |  |
| M4\_1 | CTD\_NCP | CTD\_015 | x |  |
| M2\_2 | CTD\_OMICS-T | CTD\_027 |  | x |

# INSTRUMENTS

Instrument Type: **Inverted epifluorescence microscope**

Manufacturer: **Nikon**

Model: **TE–200**

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

Instrument Type: **Inverted epifluorescence microscope**

Manufacturer: **Zeiss**

Model: **Primovert**

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

Instrument Type: **Straight epifluorescence microscope**

Manufacturer: **Zeiss**

Model: **Axio Imager**

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

Instrument Type: **Inverted microscopes**

Manufacturer: **Zeiss**

Model: **Axio Vert**

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

# DESCRIPTION of PARAMETERS

## Measurement details

For spore induction experiments samples were diluted in filtered low nutrient waters (sampled from 30°S) and placed in light or dark conditions for spore induction. Conversely, for spore germination, 2 x 15 *Odontella weissflogii* resting spores were isolated at M2\_2 and inoculated in enriched (+20 µM Si, +1 µMP) surface seawater and placed in both light or dark conditions for germination.

## Analytical procedure

Samples for spore germination experiments will be examined in inverted light microscopy (Nikon TE 200).

## Units

N/A

## Sensor precision

N/A

## Post-cruise data analysis/treatment required

N/A

## Estimated Date of Delivery

December 2018