

## **Methodes**

DMSP: dimethylsulfoniopropionate

DMS: dimethylsulfide

During DYFAMED water samples were gravity filtered through Whatmann GF/F glass-fiber filters (47 mm diameter) for dissolved DMSP (DMSPd) + DMS. Then, unfractionated whole water and filtrates were treated with 10 M cold alkali to obtain a final pH of 13. DMSP samples can be properly stored at room temperature over months under alkaline conditions in 60-ml, glass, biochemical oxygen demand (BOD) bottles with plastic caps. In addition, some distilled water was put just above the glass stopper to prevent dehydration of the gas tight seal. During DYFAMED samples were analysed within days of their collection. Alkali treatment of DMSP yields the volatile sulfur compound DMS. Sparged samples were cryotrapped on frozen ethanol (-100°C) in a 0.64 mm diameter FEP-Teflon trap filled with Tenax GC. We used a Varian gas chromatograph equipped with a double-flame Photometric Detector (FPD) to quantify DMS. DMS analyses were carried out in the laboratory. Total particulate DMSP (DMSPp) is obtained by subtracting the total DMSP + DMS content of the GF/F filtrate from the total DMSP + DMS content of unfractionated whole water.

## **DATA set**

Overall precision of measurements ( $2 \sigma$ ): DMSPp = 6.4%, DMSPd+DMS= 9.1%