SOCCOM IN2017 v02 POC

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Sample collection

Near-surface samples from SOCCOM CTD stations were taken for POC & PON analysis. 1.055 L of sample was filtered in the dark through glass fiber filter (GF/F) having a diameter of 25 mm. Filters were immediately stored in aluminium foil packages in a liquid nitrogen Dewar (-80 °C).

More information on the cruise are available at: https://soccom.princeton.edu/content/shipboard-data-reports

Analysis description

A DOC/DON/DOH adsorption blank, to account for contamination and dissolved organic carbon (DOC), nitrogen (DON), and hydrogen (DOH), was taken during sampling by stacking two filters in the filtration funnels and filtering the sample as normal. The upper filter will be the total (dissolved and particulate) organic carbon and nitrogen sample and the bottom filter will be the DOC/DON/DOH adsorption blank. The organic carbon and nitrogen from the DOC/DON/DOH adsorption blank was removed from the concentration of the total filters to retrieve particulate organic carbon (POC), nitrogen (PON), and hydrogen (POH).

All samples (including blanks) were acidified to get rid of inorganic carbon and nitrogen.

Analysis were performed by Dr Thomas Rodemann at the Central Science Laboratory, University of Tasmania, using a Thermo Finnigan EA 1112 Series Flash Elemental Analyser, following the method described at:

http://www.utas.edu.au/research/central-science-laboratory/facilities/elemental-analyser

Abbreviations

POC: Particulate Organic Carbon PON: Particulate Organic Nitrogen POH: Particulate Organic Hydrogen