

SOCCOM I7S.2017 POC

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Sample collection

Near-surface samples from SOCCOM CTD stations were taken for POC/PON analysis. Volume filtered varied from 1 to 2 L to achieve maximum loading without blockage. Filters used were GF/F 25 mm diameter. Filters were immediately stored in aluminium foil packages in a dewar of liquid nitrogen (-80 °C). Samples were shipped and analyzed at UCSB.

More information on the cruise are available at:

<https://socom.princeton.edu/content/shipboard-data-reports>

Analysis description

The POC and PON samples were acidified to get rid of inorganic carbon and nitrogen. A DOC/DON adsorption blank, to account for contamination and dissolved organic carbon (DOC) and nitrogen (DON), 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 adsorption blank. The organic carbon and nitrogen from the DOC/DON adsorption blank was removed from the concentration of the total filters to retrieve particulate organic carbon (POC) and nitrogen (PON).

Analysis were performed by Georges Paradis (georges.paradis@ucsb.edu) following the method described at:

<http://msi.ucsb.edu/services/analytical-lab/chn-analysis>.

Abbreviations

DOC: Dissolved Organic Carbon

DON: Dissolved Organic Nitrogen

POC: Particulate Organic Carbon

PON: Particulate Organic Nitrogen