

SOCOM KY1804 POC, PON

Avuntau Gullidge¹, Nils Haëntjens¹, Emmanuel Boss¹, and Lynne Talley²

¹University of Maine, ²Scripps Institution of Oceanography

March 26, 2019

Sample collection

Samples from SOCOM CTD stations were taken for POC/PON analysis. Volume filtered varied was about 2 L, and filters used were GF/F 25 mm diameter. Filters were immediately stored at -80°C on the ship and in the lab. Samples were shipped and analyzed at the Marine Science Institute at UC Santa Barbara.

More information on the cruise are available at:

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

Cruise names: KY1804, BROKE, CCAMLR

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