The Global Ocean Observing System

Endorsed

TITLE

GO-SHIP Repeat Hydrography Nutrient Manual: The Precise and Accurate Determination of Dissolved Inorganic Nutrients in Seawater, Using Continuous Flow Analysis Methods

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Essential Ocean, Climate, Biodiversity Variable(s): Nutrients

Supporting or other variables: nitrate (NO3), phosphate (PO4), silicate (Si), nitrite (NO2), ammonium (NH4)

Network(s): GO-SHIP,

Sensors: in-situ optical ultraviolet nitrate sensors

Endorsed by (GOOS PANEL, eg OCG, BIOECO): IOCCP/GOOS Biogeochemistry panel

Endorsement date: October 2020

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Links to previous versions or full manuals if this is a summary paper:

GO-SHIP Repeat Hydrography Nutrient Manual: The precise and accurate determination of dissolved inorganic nutrients in seawater, using Continuous Flow Analysis methods. http://dx.doi.org/10.25607/OBP-555

This manual has been endorsed by IOCCP/GOOS Biogeochemistry Panel of Experts as a best practice for conducting all aspects of nutrient analysis specifically for Continuous Flow analysis using a segmented flow Auto-Analyzer.

The GOOS best practice endorsement process has been developed by the GOOS and the Observation Coordination Group (OCG) in conjunction with the Ocean Best Practices System (OBPS).

The aim is for global networks (eg the International Argo programme through GOOS OCG) or groups of experts (eg. the GOOS Biogeochemical Panel) to endorse and share methods which have reproduced superior results for confidence in and uptake by the broader ocean community.

The endorsed methods can range from standard operating procedures to field manuals and have been adopted by community review as 'globally' accepted methods. Following best practices improves the reproducibility of science research, and interoperability across disciplines and datasets by standardizing methods and data collection. It allows for research to be more efficient, leads to quality datasets, and supports future proofing data.

Endorsed GOOS best practices have been through a strong identifying process. They have been adopted and used by established ocean observers and therefore represent a strong basis for the ocean science community. The document will be updated and re-endorsed as appropriate.