

Dataset: Niskin bottle samples

Project(s): Establishing Radionuclide Levels in the Atlantic and Pacific Oceans Originating from the Fukushima Daiichi Nuclear Power Facility (Fukushima Radionuclide Levels)

Abstract: This Establishing Radionuclide Levels in the Atlantic and Pacific Oceans Originating from the Fukushima Daiichi Nuclear Power Facility (Fukushima Radionuclide Levels) Niskin bottle samples dataset includes the following data: calibrated CTD measurements of salinity and oxygen and Niskin bottle water samples. For a complete list of measurements, refer to the supplemental document 'Field_names.pdf'.

Calibrated CTD measurements of salinity and oxygen at water sample depths and Niskin bottle water samples of salinity and oxygen.

Potential temperature and density were derived from calibrated CTD measurements.

Salinity samples were analyzed using a salinometer.

Oxygen samples were analyzed using Winkler titration method.

Measurements were merged with CTD measurements recorded at the same depth.

Deployment information

Deployment description for R/V Ka'imikai-o-Kanaloa KOK1108

The purpose of the 16 day KOK1108 cruise aboard the University of Hawaii research vessel Ka'imikai-o-Kanaloa was to study the fate of radiation released into the ocean from the Fukushima Daiichi nuclear power plant that was badly damaged by a tsunami on March 11, 2011.

Instrument information

Instrument:	Niskin Bottle
Description:	<i>(local description not specified)</i>
Generic Instrument Name:	Niskin bottle
Generic Instrument Description:	A Niskin bottle (a next generation water sampler based on the Nansen bottle) is a cylindrical, non-metallic water collection device with stoppers at both ends. The bottles can be attached individually on a hydrowire or deployed in 12, 24 or 36 bottle Rosette systems mounted on a frame and combined with a CTD. Niskin bottles are used to collect discrete water samples for a range of measurements including pigments, nutrients, plankton, etc.

Instrument:	CTD Sea-Bird SBE 911plus
Description:	<i>(local description not specified)</i>
Generic Instrument Name:	CTD Sea-Bird SBE 911plus
Generic Instrument Description:	The Sea-Bird SBE 911plus is a type of CTD instrument package for continuous measurement of conductivity, temperature and pressure. The SBE 911plus includes the SBE 9plus Underwater Unit and the SBE 11plus Deck Unit (for real-time readout using conductive wire) for deployment from a vessel. The combination of the SBE 9plus and SBE 11plus is called a SBE 911plus. The SBE 9plus uses Sea-Bird's standard modular temperature and conductivity sensors (SBE 3plus and SBE 4). The SBE 9plus CTD can be configured with up to eight auxiliary sensors to measure other parameters including dissolved oxygen, pH, turbidity, fluorescence, light (PAR), light transmission, etc.). more information from Sea-Bird Electronics