

For Using Data

Principal Investigator Chisato Yoshikawa (JAMSTEC)
Use Constraints See Terms and Conditions about constrain of use.
Data Citation Yoshikawa, C., Makabe, A., Shiozaki, T., Toyoda, S., Yoshida, O., Furuya, K., and Yoshida, N. (2015) Nitrogen isotope ratios of nitrate and N* anomalies in the subtropical South Pacific. *Geochemistry, Geophysics, Geosystems*, 16(5), 1439-1448. doi:10.1002/2014GC005678

Quality level

Processed (PI)

Instrument

PT/GC/IRMS



Instrument Information :

ThermoFinnigan GasBench+PreCon trace gas concentration system interfaced to a ThermoScientific Delta V Plus isotope-ratio mass spectrometer at the University of California, Davis, Stable Isotope Facility (<http://stableisotopefacility.ucdavis.edu/>).

Sample type

Seawater

Sample ID

MR09-01

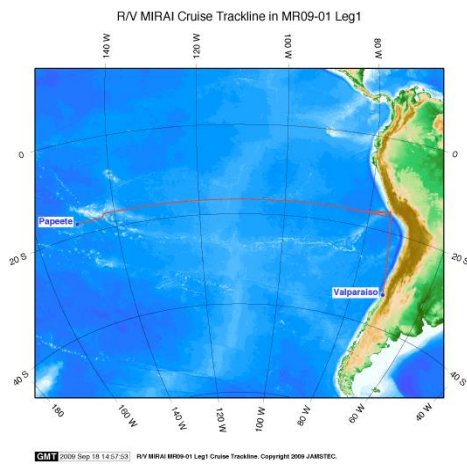
Overview

The $\delta^{15}\text{N}$ values of nitrate (plus nitrite) in seawater samples, of which the nitrate concentrations are more than $1\ \mu\text{M}$, were measured using the bacterial method of Sigman et al. [2001]. Briefly, nitrate was converted to N_2O by denitrifying bacteria that lack N_2O -reductase activity. The N_2O produced was then analyzed using a ThermoFinnigan GasBench+PreCon trace gas concentration system interfaced to a ThermoScientific Delta V Plus isotope-ratio mass spectrometer. The calibration standards used were USGS 32, USGS 34, and USGS 35.

Data format

Excel

Related Information



MR09-01 Leg1

Ship Name: MIRAI
Period: 2009/04/10 - 2009/05/19
Chief Scientist: Akihiko Murata (JAMSTEC)
Proposal: