

Dataset title:

Dissolved Iron (DFe) Column Water

Chief Scientist on cruise:

Cécile Guieu & Sophie Bonnet

Data Originator(s):

Chloé Tilliette, Cécile Guieu

Institute(s):

LOV CNRS-IMEV

Contact email(s):

guieu@obs-vlfr.fr

Additional contributors:

Géraldine Sarthou

Project:

TONGA

Funded by:

ANR, LEFE, Fond FOF, AMIDEX, IRD,

Dataset abstract:**Sampling protocol/
collection details:**

GoFlo bottles from the TMC rosette are carried inside the clean container right after the cast. Bottles are installed in the racks and put under N2 pressure in order to filter directly the seawater through a Sartobrand cartridge (Sartorius Sartobran-P-capsule 0.45 mm prefilter and 0.2 mm final filter). Filtrates (60ml HDPE bottles Nalgene) are acidified with HCl Ultrapur and placed inside double plastic bags until analyses. A total of 400 samples have been sampled.

Analytical protocol/ DFe concentrations are measured by flow injection with online
method: preconcentration and chemiluminescence detection using the exact protocol and instrument as described by Bonnet and Guieu (2006). First, the pH of the acidified samples is adjusted to 5 using Ultrapur ammonia and a 3 times purified ammonium acetate buffer before loading on the 8 hydroxyquinoline (8 HQ) preconcentration column. Each sample are analyzed in triplicate. Samples will be analyzed following GEOTRACES recommendation concerning validation.