

<b>Dataset title:</b>	drifting sediment trap
<b>Chief Scientist on cruise:</b>	Cécile Guieu & Sophie Bonnet
<b>Data Originator(s):</b>	Nathalie Leblond, Faustine Fauché
<b>Institute(s):</b>	CNRS-IMEV-LOV
<b>Contact email(s):</b>	nathalie.leblond@imev-mer.fr
<b>Additional contributors:</b>	
<b>Project:</b>	TONGA
<b>Funded by:</b>	ANR, LEFE, FOF, AMIDEX, IRD
<b>Dataset abstract:</b>	Parameters measured on particulate matter collected at drifting sediment trap are : Particulate mass (mg) and fluxe (mg/m2/d ); Particulate total Carbon (%) and fluxe (mg/m2/d); Particulate Organic Carbon POC (%) and fluxe (mg/m2/d); particulate inorganic carbon PIC (%) and fluxe (mg/m2/d); Particulate Nitrogen PN (%) and fluxe (mg/m2/d); Calcium Ca, Aluminium Al and Iron Fe (%) and fluxes (mg/m2/d); Biogenic Silicium BSi and Lithogenic Silicium LSi (%) and fluxe (mg/m2/d).

**Sampling protocol/ collection details:**

Settling particles at the two Station (V1 and Simone) were collected using drifting sediment traps (PPS5) moored at two depths (200 and 1000 m). At station V1, the sediment trap did not work at 200 m.

All samples were poisoned with buffered formalin solution. The sampling period is 1 day over a total duration of 5 days for the station V1 and 4 days for the station Simone. At laboratory, Swimmers were identified and removed from the samples. The whole sample was then rinsed with ultrapure (MilliQ) water in order to remove salt and freeze-dried. All parameters are measured from dried samples

**Analytical protocol/ method:**

1) Mass flux was obtained by weighing ; 2) Total carbon and nitrogen were measured using Perkin Elmer 2400 CHN; 3) Particulate Organic Carbon POC was measured in the same way (Perkin Elmer 2400 CHN) after removing inorganic carbon by acidification with HCl 2N; 4) Particulate Inorganic Carbon PIC is obtained by subtracting particulate organic carbon from particulate total carbon; 5) Ca, Al and Fe concentrations were measured by ICP-OES (inductively coupled plasma - optic emission spectrometry) Perkin-Elmer Optima 8000 on acid digested samples (organic matrix was destroyed by HNO<sub>3</sub> while mineral aluminosilicate matrix was destroyed with HF); 6) Measurements of biogenic silica (BSi) and lithogenic silica (LSi) were made on the same samples using respectively a NaOH/HF digestion. For the two digestion, the BSi and LSi concentration is determined by colorimetry (Analytikjena Specor 250 plus spectrophotometer)

