

**FRANKLIN CRUISES FR 8/90, 5/92 AND 8/93
DATA DOCUMENTATION
JGOFS WESTERN EQUATORIAL PACIFIC PROCESS STUDY**

[1] General:

Parameter: Sediment trap fluxes of nitrogen and carbon
Level 1: Yes
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List of Parameters: Dry weight flux $\text{mg m}^{-2} \text{d}^{-1}$
Carbonate flux $\text{mg m}^{-2} \text{d}^{-1}$
Organic matter flux $\text{mg m}^{-2} \text{d}^{-1}$
Total carbon flux $\text{mg m}^{-2} \text{d}^{-1}$
Total nitrogen flux $\text{mg m}^{-2} \text{d}^{-1}$
Reactive phosphorus flux $\text{mg m}^{-2} \text{d}^{-1}$

List of Units: $\text{mg m}^{-2} \text{d}^{-1}$

[2] Sampling:

Gear: Knauer type polycarbonate sediment traps, 8 traps per depth arranged on a rosette.
Standard Depths: 140 and 800 metres
Chemicals used: Traps filled with high density salt (NaCl) solution.
Special Procedures: Traps were deployed for approx. 24 hours. Samples were taken from the solution in the traps before the traps deployed, and post recovery for DON, DOP, and DOC analysis.
Four traps from each depth filtered through pre-combusted, pre-weighed 47mm diameter GF/F filters for CHN analysis on return to the Hobart laboratories. Samples were stored at -20C until analysis.
Comments and Notes: Cruise FR08/93 only

[3] Analysis:

Instrument: Total C and total N analysed using a Perkin Elmer 240C elemental analyser.
Method: See Honjo, S. and S.J. Manganini (1992) Woods Hole Technical Report No. 15
Precision: Not determined
Comments:

[4] Results:

Quality of Data: FR08/93 data presented of good quality.

Known Problems: Density interfaces in all traps were >50% of tube length except at Deployment 5 (5°N, 155°E) where the density interface was between 25% and 50% of the tube length. This reduction in the density solution interface is believed to have occurred during recovery when the traps were recovered through the propeller wash.

[5] Brief description of analytical method:

Honjo, S. and S.J. Manganini (1992). Biogenic particle fluxes at the 34°N 21°W and 48°N 21°W stations, 1989-1990: Methods and Analytical Data Compilation. Woods Hole Oceanographic Institution Technical Report, WHOI-92-15.

[6] Comments: