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

[1] General:

Parameter:	Epi-fluorescent microscopy: autofluorescent cell abundances
Level 1:	Yes
Principal Investigator:	Harry Higgins
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List of Parameters:	Gold autofluoroescent – large (cyanobacteria) Gold autofluoroescent – rods (cyanobacteria) Gold autofluoroescent – small (cyanobacteria) Red autofluorescent (autotrophic organisms) Green autofluorescent (heterotrophic organisms)
List of Units:	cells $L^{-1} * 10^6$

[2] Sampling:

Gear (e.g. CTD, pump, etc.):	CTD; 10 litre niskin bottles
Standard Depths:	Hydrochemistry depths: see Hydrochemistry data
Chemicals used:	none
Special Procedures:	Niskins with silicone rubber o-rings and closure rubbers. Began filtration onto 0.2µm polycarbonate filters as soon as the CTD was on deck. Filters were examined fresh under epi-fluorescence illumination or stored frozen (-20^{o}C) until examined (within one week of sampling).
Comments and Notes:	Sampled in dim light.

[3] Analysis:

Instrument:	Epi-fluorescent microscope
Method:	Autofluorescent cell counts
Precision:	coefficient of variation estimated as: Gold autofluoroescent 13% Red autofluorescent 13% Green autofluorescent 20%
Comments:	

[4] Results:

Quality of Data:	FR 9008 and FR 9205: good. No samples were taken on FR 9308.
Known Problems:	None.

[5] Brief description of analytical method:

Higgins, H. W. and Mackey, D. J. (2000) Algal class abundances, estimated from chlorophyll and carotenoid pigments, in the western Equatorial Pacific under El Niño and non-El Niño conditions. *Deep-Sea Research,* **47**, 1461-1483.

Mackey, D. J., Higgins, H. W., Mackey, M. D. and Holdsworth, D. (1998) Algal class abundances in the western equatorial Pacific: estimation from HPLC measurements of chloroplast pigments using CHEMTAX. *Deep-Sea Research,* **45**, 1441-1468

[6] Comments:

None.