

Aurora Australis JGOFS Cruises in the Southern Ocean DATA DOCUMENTATION

Cruises AU 9101, AU9303, AU 9404, AU9407, AU9501, AU 9604, and AU 9706

[1] General:

Parameter: CTD data.
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Level 1 Yes
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List of Parameters: Depth, temperature, salinity, sigma-t and some dissolved oxygen, fluorometer and PAR profiles

List of Units Depth: Decibars; temperature degrees Celcius, salinity, practical salinity units; sigma-t, no units; fluorescence as voltages, PAR as voltages

[2] Sampling:

Gear (e.g. CTD, pump, etc.): General Oceanic Mark IIIIC (WOCE upgraded) CTD units; Li-Cor photosynthetically active radiation (PAR) sensor, and a Sea-Tech fluorometer were attached to the package for some casts.

Standard Depths: Variable
Chemicals used:
Special Procedures:

Comments and Notes: CTD data processing are detailed in Rosenberg et al,

[3] Analysis:

Instrument:
Precision: Temperature, $\pm 0.001\text{C}$; salinity, ± 0.002 , oxygen, about 3% of full scale values. Fluorescence and PAR, not determined.

Comments The oxygen sensor, and Li-Cor and Sea-Tech instruments were not present on all CTD casts

[4] Results:

Quality of Data Good.

Known Problems: See Rosenberg et al, 1995a, 1995b, 1996, 1997 for a very detailed description of post-cruise processing and problems encountered,

[5] Brief description of analytical methods

Method: Vertical casts were made with the CTD with descent and ascent speeds of 60m min⁻¹. See Rosenberg et al (1995a, 1995b, 1996, 1997) for a description of the CTD data processing.

References:

- Rosenberg, M., Eriksen, R. and Rintoul, S. 1995a. *Aurora Australis marine Science cruise AU9303/AU9391 – oceanographic field measurements and analysis*. Antarctic Cooperative Marine Research Centre, Research Report No. 2, July 1995. 103 pp.
- Rosenberg, M., Eriksen, R., Bell, S., Bindoff, N., and Rintoul, S. 1995b. *Aurora Australis marine Science cruise AU9407 – oceanographic field measurements and analysis*. Antarctic Cooperative Marine Research Centre, Research Report No. 6, July 1995. 97 pp.
- Rosenberg, M., Eriksen, R., Bell, S., and Rintoul, S. 1996. *Aurora Australis marine Science cruise AU9404 – oceanographic field measurements and analysis*. Antarctic Cooperative Marine Research Centre, Research Report No. 8, July 1996. 53 pp.
- Rosenberg, M., Bray, S., Bindoff, N., Rintoul, S., Johnston, N., Bell, S., and Towler, P. 1997. *Aurora Australis marine Science cruises AU9501, AU9604, and AU9601 – oceanographic field measurements and analysis, intercruise comparisons and data quality notes*. Antarctic Cooperative Marine Research Centre, Research Report No. 12, September 1997. 150 pp.

[6] Comments: