Supplement of Biogeosciences, 18, 4265–4280, 2021
https://doi.org/10.5194/bg-18-4265-2021-supplement


Biogeosciences Open Access EGU

*Supplement of*

# Seasonal cycling of zinc and cobalt in the south-eastern Atlantic along the GEOTRACES GA10 section

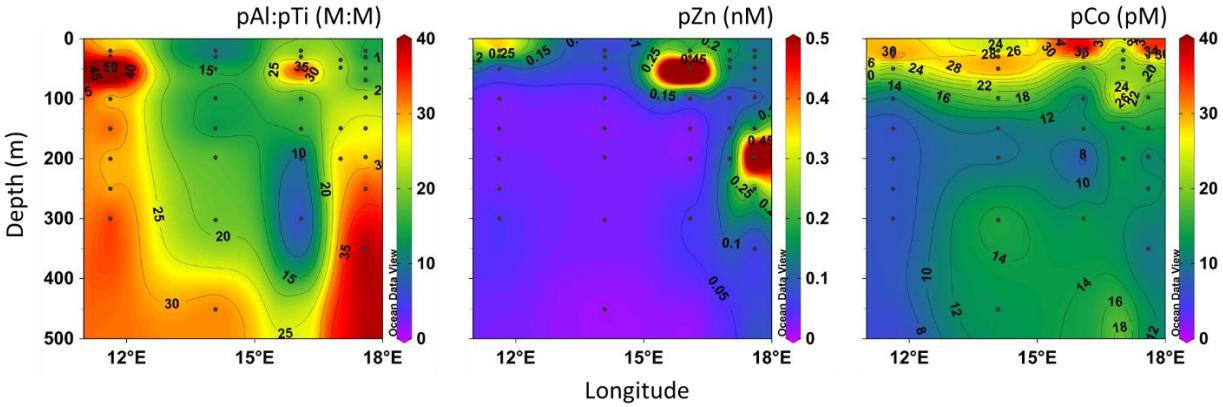
**Neil J. Wyatt et al.**

*Correspondence to:* Neil J. Wyatt (n.j.wyatt@soton.ac.uk)

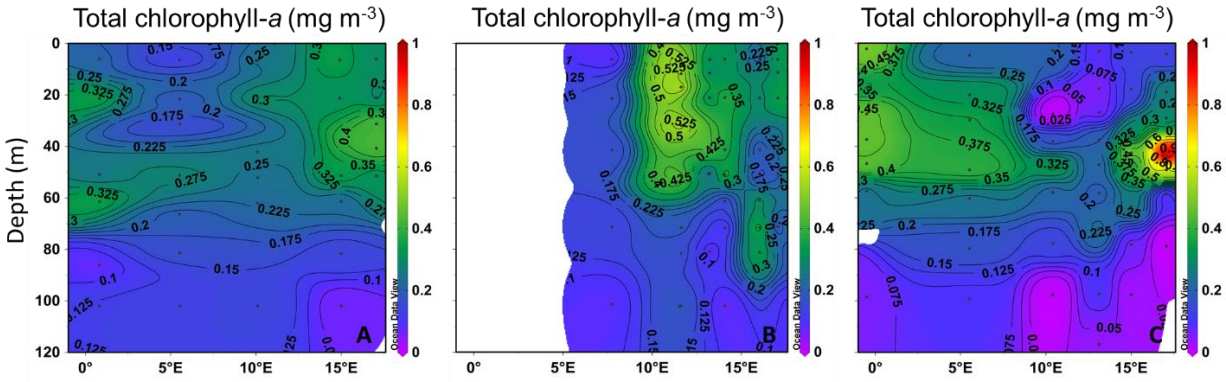
Supplement Table S1. Regression lines as depicted in Figure 4. SAMW was identified by Si* (Sarmiento et al., 2004) with underlying AAIW located between 500 and 1750 m. Concentrations of dissolved Zn and Co are in nM and $PO_4^{3-}$ in µM. SAMW = Sub-Antarctic Mode Water, AAIW = Antarctic Intermediate Water.

| Water mass | Transect | Equation dZn-$PO_4^{3-}$ relationship | $R^2$ | *n* |
|---|---|---|---|---|
| SAMW | Early spring | dZn = 1.4 * $PO_4^{3-}$ - 1.0 | 0.39 | 27 |
| | Late spring | dZn = 1.4 * $PO_4^{3-}$ - 0.8 | 0.67 | 44 |
| | Summer | dZn = 1.1 * $PO_4^{3-}$ - 0.7 | 0.54 | 30 |
| AAIW | Early spring | dZn = 5.8 * $PO_4^{3-}$ - 9.1 | 0.65 | 40 |
| | Late spring | dZn = 4.4 * $PO_4^{3-}$ - 6.1 | 0.60 | 21 |
| | Summer | dZn = 5.9 * $PO_4^{3-}$ - 9.4 | 0.43 | 19 |

| Water mass | Transect | Equation dCo-$PO_4^{3-}$ relationship | $R^2$ | *n* |
|---|---|---|---|---|
| SAMW+AAIW | Early spring | dCo = 12.6 * $PO_4^{3-}$ + 28.4 | 0.42 | 55 |
| | Late spring | dCo = 15.4 * $PO_4^{3-}$ + 17.3 | 0.67 | 56 |
| | Summer | dCo = 11.4 * $PO_4^{3-}$ + 30.2 | 0.49 | 36 |




Supplement Figure S1. Upper 500 m distribution of particulate Al:Ti ratio alongside particulate Zn and Co between 11 and 18°E during the late spring (D357-2).




Supplement Figure S2. Upper 50 m distributions of total chlorophyll-*a* during the early spring (A; D357-1), late spring (B; D357-2) and summer (C; JC068) transects.