

**Effects of iron limitation on carbon balance and photophysiology of the Antarctic
diatom *Chaetoceros cf. simplex*.**

Polar Biology

Deborah Bozzato^{1, 2*}, Torsten Jakob¹, Christian Wilhelm³, Scarlett Trimborn^{4, 5}

¹ University of Leipzig, Institute of Biology, Plant Physiology, Leipzig, Germany

² University of Groningen, Groningen Institute for Evolutionary Life Sciences, Groningen,
The Netherlands

³ Saxon Institute of Biotechnology, Leipzig, Germany

⁴ Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research, Biogeosciences
Section, EcoTrace, Bremerhaven, Germany

⁵ University of Bremen, Marine Botany Department, Faculty 2 Biology/Chemistry, Bremen,
Germany

*Corresponding author: d.bozzato@rug.nl

Supplementary material

Online Resource 1 Concentrations of total alkalinity (TA) and dissolved inorganic carbon (DIC) were determined at the end of the experiment for *Chaetoceros* cf. *simplex* grown under Low Fe and High Fe conditions. All values are mean standard deviation ($n = 3$).

	Alkalinity ($\mu\text{mol kg}^{-1}$)	DIC ($\mu\text{mol kg}^{-1}$)
Low Fe	2248 ± 5	2180 ± 8
High Fe	2242 ± 6	2192 ± 5

Total alkalinity was calculated from linear Gran Plots (Gran 1952). pH was measured using a pH meter (WTW, model pMX 3000/pH, Weilheim, Germany) that was calibrated on a daily basis (3-point calibration) using National Institute of Standards and Technology-certified buffer systems. The carbonate system was calculated from alkalinity, pH, silicate, phosphate, temperature and salinity using the CO2Sys program (Pierrot et al. 2006).

References

- Gran G (1952) Determinations of the equivalence point in potentiometric titrations of seawater with hydrochloric acid. *Oceanol Acta* 5: 209–218
- Pierrot DE, Lewis E, Wallace DWR (2006) MS Excel program developed for CO₂ system calculations.