

***Interactive comment on* “Dissolution of calcium carbonate: observations and model results in the North Atlantic” by K. Friis et al.**

U. Riebesell (Editor)

uribesell@ifm-geomar.de

Received and published: 5 February 2007

Dear Dr. Friis,

thank you for the revised version of your manuscript bgd-2006-0051 “Dissolution of Calcium Carbonate: Observations and Model Results in the North Atlantic” and for the in-depth responses to the referees’ comments. I also thank you for providing relevant background information, which has greatly helped to follow the line of reasoning in your reply to the referees.

Based on the available information I find that the referee’s comments have been adequately addressed in the authors’ responses and, where necessary, in the revised version of the manuscript.

Some of the information provided in your reply to the referees may also be of help for the readers of this manuscript. Most importantly, there appears to be uncertainty regarding the use of salinity normalisations in previous publications referred to by Friis et al., an aspect also raised by the referees. Obviously this is an important point in the comparison of the results of this study with earlier estimates of SDCCD. I therefore encourage the authors to add this information in the final manuscript. This may also apply to some of the background information concerning suspected erroneous estimates of upper ocean carbonate dissolution rates in previous publications.

Suggestions for minor corrections (location abbreviated as page, line) - 3, 2: replace (mussels, corals, and plankton) by (e.g. molluscs, corals, and calcifying plankton). - 7, 13: check notations in Eq (1) - 9, 2: delete “in” - 9, 24: delete “below” - 13, 3: delete “want to” - 23, panel C: should this be “alternative normalisation”?

Please submit the final version of the manuscript within the next 4 weeks.

Best regards, Ulf Riebesell

Interactive comment on Biogeosciences Discuss., 3, 1715, 2006.

Full Screen / Esc

Printer-friendly Version

Interactive Discussion

Discussion Paper