Interactive comment on “Calcite production by Coccolithophores in the South East Pacific Ocean: from desert to jungle” by L. Beaufort et al.

L. Beaufort et al.

Received and published: 14 March 2008

We acknowledge the work of the reviewers. We follow all the reviewers’ comments when this was possible. Referee #1 was generally positive. The relation between the chemistry and the calcification of coccolith has been changed and extended by the use of in situ measurements of the carbonate chemistry. In order to do that, we included Catherine Goyet who performed the chemistry in BIOSOPE, as a coauthor of the paper. Reviewer #3 raised several important criticisms in particular related to the methodology used in that manuscript. Consequently he felt that the conclusions are not supported by the data (that basically he did not trust). In this new version we spend a lot of efforts to convince the reader that the methodology is adequate. For that we compared the results of the automated techniques with "classical" human counts. We used some of these counts when the automatic method apparently failed. We also gave statistics
and we revised some sections that could have been confusing. Also we provide counts on the specific composition of the Isochrysidales and coccolithophores, to show the reader we know what has been measured. The data presented are hopefully "robust" and the interpretations trustable.

A longer response to the referee will be submitted with a revised manuscript.

Interactive comment on Biogeosciences Discuss., 4, 3267, 2007.