

Comments on “Variations of polyphenols and carbohydrates of *Emiliana huxleyi* grown under simulated ocean acidification conditions.”

This study reports the effect of ocean acidification on phenols and carbohydrates contents of *Emiliana huxleyi*. The idea is nice and the experimental setup is good. The data shown here are collected and analyzed clearly, and provide useful information for the biogeochemical cycling of carbon in future ocean acidification. I only have a few minor comments:

(1) Can you explain the relationships between carbohydrates and phenols in the introduction section of this manuscript?

(2) Lines 216-218: “In contrast to these results,”. This sentence is too long, please rewrite it.

(3) Lines 237-240: The unit of Chl *a* is “fmol cell⁻¹” here. Please also show it in “pg cell⁻¹” in a bracket, such as 56.6±2.8 fmol cell⁻¹ (**±** pg cell⁻¹).

(4) For figure 2, the first point in the x-axis should be “7.75” rather than “7.5”. Please change it.

(5) Lines 292-296: “ROS production was also correlated withfor *N. gaditana* cells at pH 6.0”. It is so difficult to understand this sentence. Please rewrite it.

(6) In the introduction and discussion sections, such as in lines 70-79 and

317-337, the authors talk about the contents of Fe. It is better to measure the Fe concentration in the seawater at the beginning and end of the incubations in future study.

(7) Lines 415-416, there are logistic problems about this sentence “Engel (2015) reported that in their study”. Please rewrite it.