

All suggestions and corrections I have made (and the other referee) have been appropriately addressed and integrated, the manuscript being updated accordingly.

This paper should be of interest to marine microbiologists who investigate how phytoplankton modulate their lipid membrane under Phosphate limitation and who wish to understand how green algae respond to a collection of stresses: nutrient limitation/starvation, viral infection and carbonation. I support publication of this paper in Biogeosciences.

Minor corrections: I am still surprised to see that many typos that should be corrected long before final publication. e.g. l.61 limitation growth of what?; l.121 in parenthesis; l.142 flow cytometry in two words; l.164 in parenthesis and weird numbers; l.321 period; FigS1, l.8 p-value superior and inferior.....please proof-read for a nice last version of the article.