

Response to comment on:

Effects of increased $p\text{CO}_2$ and geographic origin on purple sea urchin (*Strongylocentrotus purpuratus*) calcite elemental composition.

M. LaVigne, T.M. Hill, E. Sanford, B. Gaylord, A.D. Russell, E.A. Lenz, J.D. Hoffelt, and M.K. Young

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Author response in bold italics:

We would like to thank Jean-Pierre Gattuso for his constructive comments on our manuscript. The comments, questions, and suggestions raised in the interactive discussion have greatly improved the manuscript.

Below are our point by point responses (in bold italics) to the issues raised by Jean-Pierre Gattuso. The manuscript has been revised accordingly.

Comment by: J.-P. Gattuso

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This is not a review; I just thought that the following comments would be helpful. The authors may want to follow the recommendations of the Guide to best practices for ocean acidification research and data reporting (Riebesell et al., 2010) :

- the correct unit for $p\text{CO}_2$ in seawater is μatm rather than ppm

We have changed the units for $p\text{CO}_2$ used in our manuscript from ppm to μatm .

- the pH scale should always be mentioned (cf. abstract) as a subscript, for example pH_T for the total scale.

We have updated the manuscript to clarify that the pH total scale was used in this study (identified as pH_T).

- Note also that salinity is the ratio of two conductivities and therefore has no unit.

We have removed the salinity units (psu) from our manuscript.

Finally, Biogeosciences strongly promotes the full availability of the data sets reported in the papers that it publishes in order to facilitate future data comparison and compilation as well as meta-analysis. This can be achieved by uploading the data sets in an existing database and providing the link(s) in the paper. Alternatively, the data sets can be published, for free, alongside the paper as supplementary information. The ascii (or text) format is preferred for data and any format can be handled for movies, animations etc...

Therefore, I would like to suggest to the authors to consider providing a link to the data or submitting the data sets together with the revised manuscript, if they are invited to do so by the handling editor.

We plan to upload the data used to generate all figures and tables as supplementary data tables.