

General Comments on the manuscript from Travis et al., Testing the influence of light on nitrite cycling in the eastern tropical North Pacific

In the manuscript *Testing the influence of light on nitrite cycling in the eastern tropical North Pacific*, Travis and colleagues present evidence of light influence in the accumulation of nitrite at the PNM. The manuscript is well written, containing a great set of figures and tables. While I am in support of the paper for publication, I have a few general comments.

#### General comments

Line 37: There are random numbers at the beginning of the sentence.

Line 39: What does CA mean? I suggest using the full name instead.

Line 67-68: This sentence is a bit unclear, needs revision.

Line 165: There is a misprint in the sentence.

Line 173-174: I am not certain the incubation period used here is enough to determine an actual rate of ammonium oxidation. This different methodology is quite interesting and needs to be explained more in the methods section. I make this point because literature indicates that nitrifying organisms are slow growers, therefore can we be certain that these are actual rates or the rates themselves should be referred to as potential rates in the manuscript.

Line 178: The table seems more like a repeat of the information already written in the methods section, if the authors deem necessary to include the table, I suggest moving the table to the SI document instead.

Line 215: Should first define CV%.

Line 225: Please comment at Line 173-174

Line 259-263: SigmaT should be define what it is, these numbers right now may not mean much to some people.

Figure 7: Some data points are cut-off on the map.

Line 576: nM d<sup>-1</sup> needs a superscript.