

The authors now provided the missing data and did overall a good job in revising their manuscript. I thus have only technical comments left:

Response: thanks for the careful review!

I.193: Give a reference for the R program

Response: yes.

I. 197: Give a reference for hmmsearch

Response: yes.

I. 204: Give a reference for KEGG

Response: there is a reference for KEGG database before the sentence that mentioned KEGG website. For the website, we just used a URL link.

I. 211 Give a reference for GGDC

Response: There are three references for it. We moved them forward to be closer to 'GGDC'.

I. 229 Give a reference for first isolation of *A. borkumensis*

Response: yes, we found the first publication for *Alcanivorax borkumensis* Sk2.

I. 231: company, location

Response: yes.

I. 234: spell out PBS

Response: yes.

I. 245: DAPI: company, location

Response: yes.

Figures:

Figure 1: labels on Fig. 1b, c are too small, legend in 1b is too small

Response: the figure has been modified!

Figure 4: there are some shadows around the circles, maybe a higher resolution could help, here

Response: The shadows have been removed.

Figure S2: The comparison was conducted on the ACT website using what tool?

Response: the legend was modified as "The comparison was

conducted using Artemis Comparison Tool in the WebACT (webact.org)."

Table S1: Replace heading by `Sequencing statistics`

Response: yes.