Comment on bg-2022-79-Anonymous Referee 2
Georgia Filippi et al.

Author comment on "Sediment Quality Assessment in an industrialized Greek coastal marine area (West Saronikos Gulf)" by Georgia Filippi et al., Biogeosciences Discuss., https://doi.org/10.5194/bg-2022-79-AC2, 2022

Regarding of the comments of Anonymous Referee 2:

Dear sir/madam we would like to thank you for the initial evaluation of our manuscript bg-2022-79.

Regarding the comment on the sampling design, it is customary practice to obtain 1 sediment core at each station. Moreover, a literature review showed that papers about metals in sediment cores, published in 2020-2021, three of which are shown below, state that 1 core was collected from each sampling station.

In our study, analytical precision was checked in 1 or 2 random layers of each core that were analyzed in duplicate. The reference sediment PACS used for quality control was analyzed multiples times, as well. These quality control measures were not fully mentioned in the Materials and Methods section for economy of space.

Therefore, we propose that the relevant information be added to the revised manuscript we plan to submit in any case since we have to incorporate suggestions from Referee 1.

Furthermore, we agree that a strict statistical comparison between sampling stations layer for layer cannot be performed since single measurements are mostly available. However, if Referee 2 deems it useful, there could be some attempt for statistical comparison between stations by using multiple layers from each core in order to better substantiate our discussion regarding some differences in metal content between stations in our study area. Elaborating on this, we could calculate the mean and standard deviation for example of the top 5 cm of each core and then apply statistical comparison using SPSS.

We are open to any other suggestions that would improve the quality of our manuscript.

https://doi.org/10.1016/j.marpolbul.2019.110764
https://doi.org/10.1016/j.dib.2020.105330