Reviewer 1

The research aims to determine the optimum conditions for the photobiological treatment of ROC obtained from a full-scale advanced water purification facility using Gedaniella flavovirens Psetr3.

The work is very well presented. The objectives and methods are clear. The discussion is good and the abstract and conclusions are in line with the results and their analysis.

> **Response:** We are grateful for the reviewer's positive feedback on our manuscript. We have taken their comments into careful consideration and made revisions accordingly.

1. In the introduction it is necessary to better explain the advantages of RO in relation to other methods such as UF, NF, disinfection, electroflotation, ozonation or electrochemical methods. It would be worth explaining.

> **Response:** We appreciate this suggestion. The benefit of RO is dissolved solids (salinity) removal. The following sentence was added in Introduction:
>
> > Where dissolved solids (i.e., salinity) removal is crucial, RO is essential because other unit processes, including MF, UF, UV AOP, and ozone-biologically active carbon filtration cannot achieve this task.

2. Section 2.4: It would be much clearer if a figure with the semi-batch photobiological treatment experiments is presented. Figures S1 and S4 should be part of the text.

> **Response:** We appreciate this suggestion & agree that having a scheme showing semi-batch photobiological treatments would be beneficial. Accordingly, we created a new Figure 2. Subsequently, Figures S1 was removed from the Supplementary Information (SI) as the coliform bottles are now shown in the new Figure 2. We decided to retain Figure S4 (now renumbered as S3) in SI to avoid overcrowding the manuscript with too many figures.

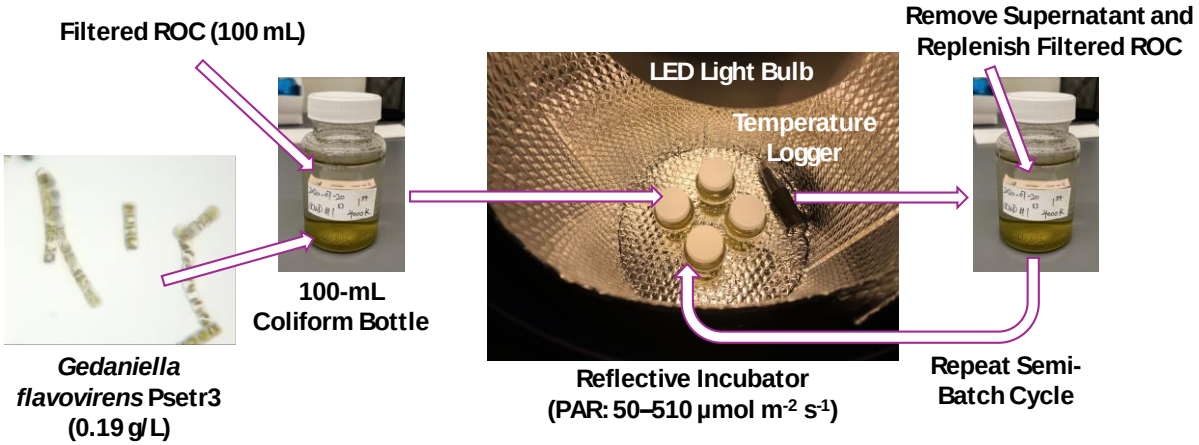


Figure 2. A simplified scheme of semi-batch photobiological treatment experiments. **Abbreviations:** ROC = reverse osmosis concentrate, LED = light emitting diode, PAR = photosynthetically active radiation.