Ocean Science Discussions

Ocean Sci. Discuss., referee comment RC2
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Comment on os-2021-90

Anonymous Referee #2

Referee comment on "Inherent optical properties of dissolved and particulate matter in an Arctic fjord (Storfjorden, Svalbard) in early summer" by Tristan Petit et al., Ocean Sci. Discuss., https://doi.org/10.5194/os-2021-90-RC2, 2021

In general, the preprint *Inherent optical properties and optical characteristics of dissolved organic and particulate matter in an Arctic fjord (Storfjorden, Svalbard) in early summer* by Petit et al. presents a very good picture of the IOPs and the optical complexity within the Storfjorden. Dataset enhances bio-optical picture of Arctic Ocean with state-of-the-art data and methods. The dataset can be used to increase the amount of data to be used for modelling bio-optical complex waters in the Arctic Ocean. The preprint needs improvement, please take into consideration suggestions and comments in the **attached PDF.**

Specific comments:

- Do you have any solution how to avoid variability in blanks during cruise to create blanks under the same conditions as samples are taken?
- You describe the ratio of scattering to absorption. Can you please discus this ratio in more details?
- You clearly describe spectral slope. Can you please discuss this parameter in more details?

Please also note the supplement to this comment:
https://os.copernicus.org/preprints/os-2021-90/os-2021-90-RC2-supplement.pdf