

Interactive comment on “Study on organic matter fractions in the surface micro layer in the Baltic Sea by spectrophotometric and spectrofluorometric methods” by Violetta Drozdowska et al.

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Thank you very much for reviewing the manuscript and your comments. I am grateful for the advice to which now I respond. I'm planning to make the language correction just after the review phase.

No, I will refer to your comments .

Reviewer #2:

" The manuscript reports findings that are interesting for future work in ocean optics. Manuscript has scientific weight. In my opinion the manuscript require several corrections to be suited for publication. The suggested corrections before the publication of the manuscript were mentioned below."

Detailed comments:

1. The name of the Section 2 "Method" should be specified. Now the name of this section suggests about description of used method, however authors describe in this section several issues: the used material, studied area and specification of measurements or specific absorption and fluorescence indices. I agree that the section 2 is about many aspects of the experimental measurements. Therefore the name of the Section 2 will be changed into "Measurements".

2. I suggest, that better would be if authors move the subsection 2.3 "CDOM and FDOM optical properties" and described this in separate section "Optical indices used for calculations" or "Optical indices of CDOM and FDOM used for calculations" with two subsections: absorption indices and fluorescence indices. The section 2.3 "CDOM and FDOM optical properties" in natural way tells, firstly, about the absorption spectra analysis and calculations of the absorption indices and then followed by a section dedicated to fluorescence. Hence, I'll divide the section 2.3 into 2 subsection 2.3.1 and 2.3.2, according to the Reviewer #2.

3. I think that better would be, if all data of calculated optical indices have been collected in one table. The results included in the tables I and II apply to other physical quantities as well as are calculated for different areas, therefore it'd be difficult to arrange one consistent table. Additionally, one table refers to the results contained in section 3.1, while Table II – section 3.2. Thus, in my opinion, it's better to leave the separate two tables.

4. The English language of the manuscript is good. However, several sentences are unclear or contain colloquial phrases, for example: page 7 line 8 "...become smaller

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an smaller.." better would be "...decreasing..." page 12 line 2 "...the biggest relative changes..." better would be "...the highest relative changes.." page 13 line 3 "...shorter wavelength..." better would be "...lower wavelength.." page 15 line 7 "What is more..." better would be "Moreover.." I think that a little English correction can improve quality of the manuscript. Thank you, I corrected.

5. The data presented in tables are unnecessarily duplicated in the text, for example: - page 7 line 15-17 - duplicated data from Table 1 or - page 10 line 17-19 duplicated data from Table 2, instead the duplication, the authors should discuss this data. In my opinion, it is good when the information from the table and figures appear in the text. Especially since I emphasize that the higher values were received for SML.

6. Fig. 3 - incorrect legend. I corrected the legend.

7. Fig. 7 - no description of X-axis I put the description : "FDOM components"

8. Page 7 line 19 - W1 station describes the area near Vistula River outlet not open sea Thank you, I've made a mistake.

9. Page 5 line 18 - it should be S(275-295) not S(274-295)? Thank you, I've made a mistake.

I put the changes - according to your comments together with the changes suggested by the Reviewer #3.

Please also note the supplement to this comment:

<http://www.ocean-sci-discuss.net/os-2017-4/os-2017-4-AC1-supplement.pdf>

Interactive comment on Ocean Sci. Discuss., <https://doi.org/10.5194/os-2017-4>, 2017.

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Figure 3. The relationship between salinity and: (a) the spectral slope coefficient, S_0 , measured in the 200–600nm, (b) the slope ratio $S_0 = S_{200-250} / S_{500-600}$ and (c) the relative changes in the molecular weight, MW (E_2/E_3) for SS; and: (d), (e) and (f) for SML, respectively.

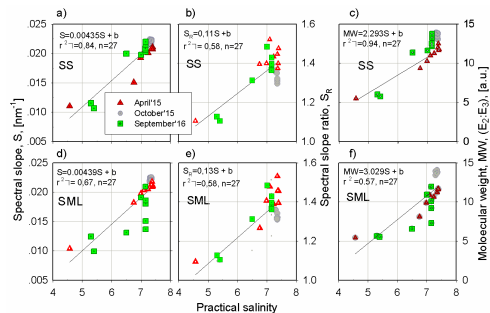


Fig. 1.