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September 21, 2026

Editor
Earth System Science Data

Attn: Review of the revised manuscript by Jean-François Berthon and Giuseppe Zibordi “Coastal Atmosphere & Sea Time Series (CoASTS) and Bio-Optical mapping of Marine optical Properties (BiOMaP): the hyperspectral absorption coefficients by optically significant constituents” submitted to Earth System Science Data and coded essd-2026-463.

Dear Editor,

After reading the manuscript by Berthon and Zibordi submitted to Earth System Science Data and coded essd-2026-463 **I recommend to consider this paper for publication in this journal as is.**

General opinion

Authors have presented data sets of absorption coefficients spectra of particles suspended in sea water, phytoplankton pigments, and non-pigmented particles in the spectral range between 400-750 nm measured with a 3 nm spectral resolution at 2 nm increment, in water samples collected in the surface layer of numerous marine water around Europe. The particulate absorption spectra are accompanied with absorption coefficient spectra by Chromophoric Dissolved Organic Matter – CDOM, measured in same water samples volume in the spectral range 350-680 with 1 nm resolution. Presented data set consist with two parts: Coastal Atmosphere & Sea Time Series program performed from 1998 to 2016 in the northern Adriatic Sea at the Acqua Alta Oceanographic Tower (AAOT) - CoASTS, and the Bio-Optical mapping of Marine optical Properties (BiOMaP) field program performed from 2000 to 2021 in the European Seas. This data set is very valuable and may be used in many coastal areas as reference for assessing temporal evolution of marine landscapes in European seas.

I have just returned from Ocean Optics conference, where I have noticed that mentioned above data set has been already used by many students and researchers in various studies in discipline of aquatic optics and ocean color remote sensing and marine biogeochemistry. This proved real values of presented data set, and guarantees its use by younger generation of researchers in this community. This is a very important contribution of Authors, who set a benchmark for contemporary spectral values of absorption coefficient of three most important absorbing constituents. For these reason this manuscript deserves a prompt publication in Earth System Science Data journal.

Author have adequately addressed my minor comments as reviewer. Specifically they have added tables with selected spectral values on absorption coefficients by particles, phytoplankton

pigments detrital material and CDOM as well as values of spectral slope of CDOM and detrital material absorption spectra for a given European sea, or its subregion.

Best regards

Piotr Kowalczuk