

New Value of “Pure” Seawater Absorption Coefficient

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- Using optical data measured from the “clearest” oceanic waters, the absorption coefficients of “pure” seawater in the 350-550 nm range were inverted analytically.
- The new values in the 350-400 nm range are substantially lower than the present “standard” values adopted by the community, and slightly lower in the 400-550 nm range.
- Application of the new values to modeling of remote sensing reflectance provides a better closure than application of the earlier standard values.
- The new values are generally consistent with that obtained recently in the labs using new measurement techniques, but the absorption coefficients of “pure” seawater are higher than that of “pure” water in the UV range (~350 nm).

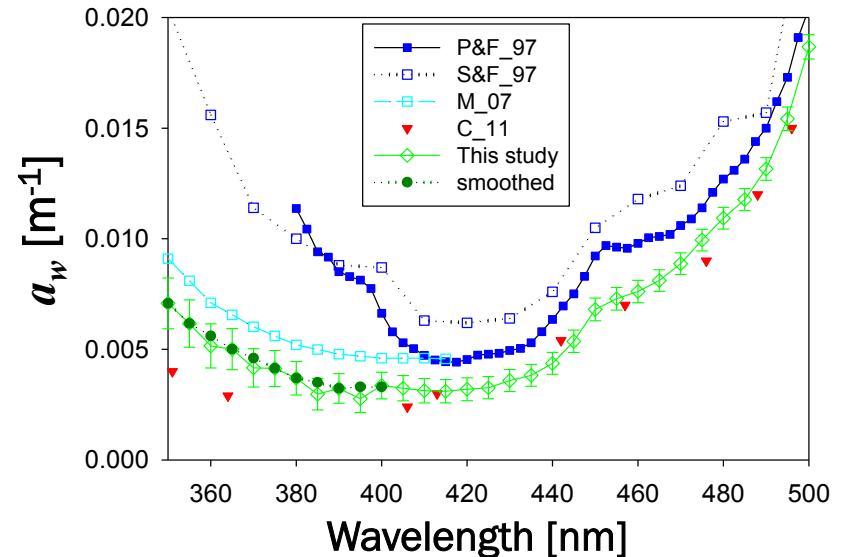


Fig. 1. Comparison of the spectrum of absorption coefficient of “pure” water or seawater obtained differently.

Lee, Z. P., J. Wei, K. Voss, M. Lewis, A. Bricaud, Y. Huot, 2015, Hyperspectral absorption coefficient of “pure” seawater in the 350-550 nm range inverted from remote-sensing reflectance. *Appl. Opt.*, Vol. 54, 546-558. [\[OSA\]](#)