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## EDITED BY

Vittorio Ernesto Brando,  
National Research Council (CNR), Italy

## REVIEWED BY

Tristan Harmel,  
Earth Observation Unit, France  
Anna Windle,  
Goddard Space Flight Center, United States

## \*CORRESPONDENCE

Maximiliano Arena,  
✉ [marena@iado-conicet.gob.ar](mailto:marena@iado-conicet.gob.ar)

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# Corrigendum: Optical water characterization and atmospheric correction assessment of estuarine and coastal waters around the AERONET-OC Bahia Blanca

Maximiliano Arena<sup>1,2\*</sup>, Paula Pratolongo<sup>2,3</sup>, Hubert Loisel<sup>4</sup>, Manh Duy Tran<sup>4</sup>, Daniel Schaffer Ferreira Jorge<sup>4</sup> and Ana Laura Delgado<sup>1,5</sup>

<sup>1</sup>Instituto Argentino de Oceanografía (IADO-CONICET-UNS), Bahía Blanca, Argentina, <sup>2</sup>Departamento de Biología Bioquímica y Farmacia, Universidad Nacional del Sur (UNS), Bahía Blanca, Argentina, <sup>3</sup>Centro de Recursos Renovables de la Zona Semiárida (CERZOS-CONICET-UNS), Bahía Blanca, Argentina, <sup>4</sup>Laboratoire d'Océanologie et de Géosciences, Université du Littoral-Côte-d'Opale, Université Lille, CNRS, IRD, UMR, LOG, Wimereux, France, <sup>5</sup>Institut Mediterrani d'Estudis Avançats (IMEDEA-CSIC-UIB), Esporles, Spain

## KEYWORDS

AERONET-OC, optical water types, atmospheric correction, Sentinel-3 OLCI, coastal waters

## A Corrigendum on

### Optical water characterization and atmospheric correction assessment of estuarine and coastal waters around the AERONET-OC Bahia Blanca

by Arena M, Pratolongo P, Loisel H, Tran MD, Jorge DSF and Delgado AL (2024). *Front. Remote Sens.* 5:1305787. doi: [10.3389/frsen.2024.1305787](https://doi.org/10.3389/frsen.2024.1305787)

In the published article, there was an error in [Figure 5](#) as published. The conversion to  $L_{wn}(\lambda)$  of the “ACOLITE-DSF” products was miscalculated due to an additional division by a factor of pi. Consequently, scatterplots of the “ACOLITE-DSF” match-up exercise exhibited significantly underestimated values with errors of large magnitude. The corrected [Figure 5](#) and its caption appear below.

A correction has been made to **3. Results**, 3.3 *Validation of OLCI (Sentinel 3A-B)  $L_{wn}(\lambda)$* , paragraph 2. This paragraph previously stated:

“At 412 nm, the “Standard NN” presented the lowest RSME ( $0.29 \text{ mW cm}^{-2} \text{ sr } \mu\text{m}^{-1}$ ) and NMAE (12%) ([Supplementary Figure S2](#), [Supplementary Material](#)). Similar results were obtained with the l2gen processor whose performance was relatively intermediate (RSME: 0.51 and 0.73, and NMDE: 24 and 38 at 412 nm for “SeaDAS” and “SeaDAS-ALT”, respectively). Results from “SeaDAS” and “SeaDAS-ALT” were similar, with a slight tendency to overestimation in both cases. In the case of blue-green bands, overestimation resulted in large biases, NMDEs and offsets ([Figure 5](#)). POLYMER and ACOLITE-DSF consistently underestimated  $L_{wn}(\lambda)$  with negative biases and lower coefficients of determination. It has to be noted that POLYMER performance improved

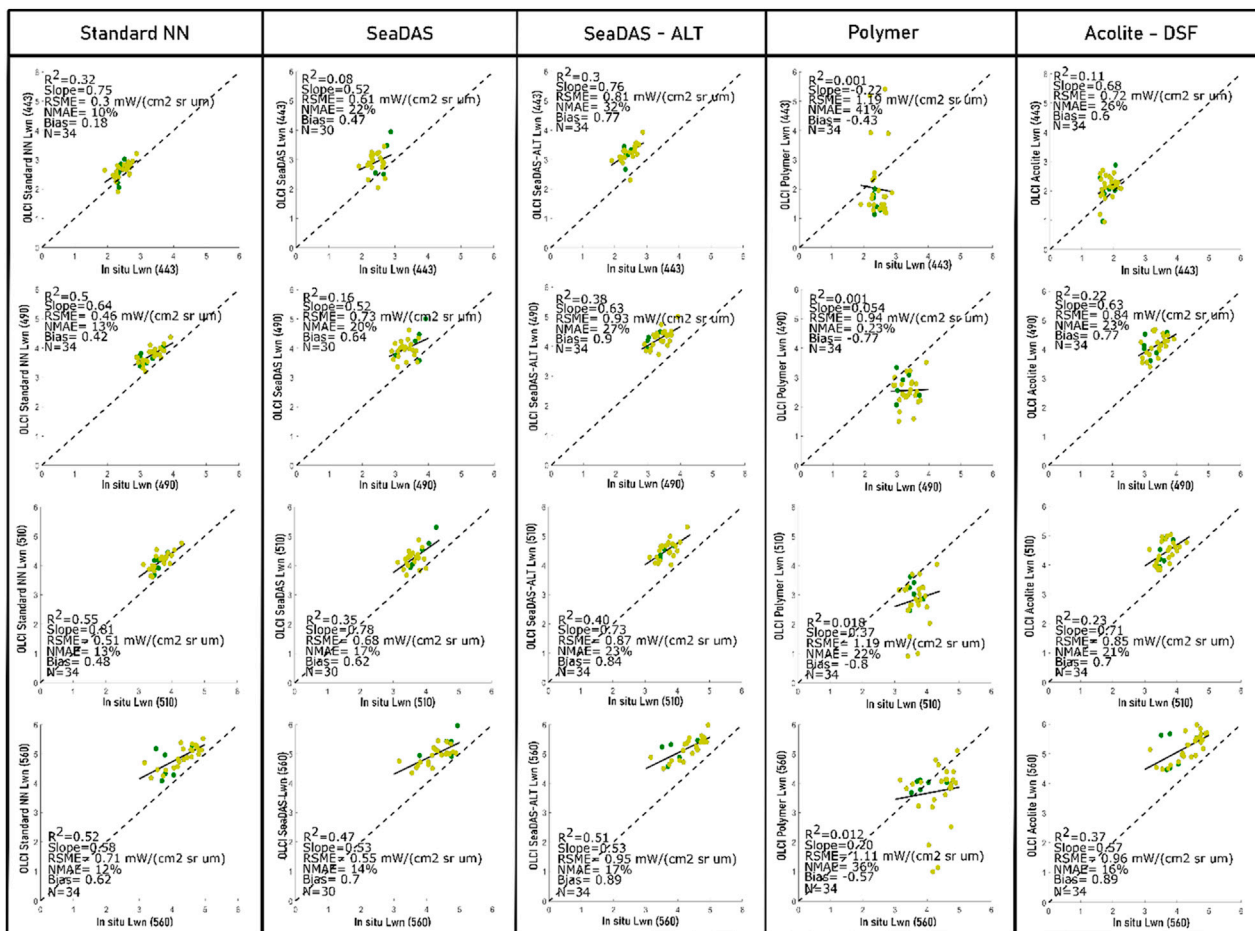


FIGURE 5 Scatterplots of the match-up exercise of the atmospheric correction algorithm (AC) retrieval and the *in situ*  $L_{wn}$  (443, 490, 510, 560 nm). Colors indicate the OWT: OWT 3 in green, OWT 4 in yellow.

at 510, 560, and 665 nm, but large RSMEs and NMAEs, as well as larger dispersion were observed when compared to the operational algorithm. In the study area, ACOLITE-DSF produced large underestimations with errors of large magnitude in the visible bands (Figure 5)."

The corrected paragraph appears below:

"At 412 nm, the "Standard NN" presented the lowest RSME (0.29 mW cm<sup>2</sup> sr μm)<sup>-1</sup> and NMAE (12%) (Supplementary Figure S2, Supplementary Material). Similar results were obtained with the l2gen processor whose performance was relatively intermediate (RSME: 0.51 and 0.73, and NMDE: 24 and 38 at 412 nm for "SeaDAS" and "SeaDAS-ALT", respectively). Results from "SeaDAS", "SeaDAS-ALT" and "ACOLITE-DSF" were similar, with a slight tendency to overestimation in all cases. In the case of blue-green bands, overestimation resulted in large biases, NMDEs and offsets (Figure 5). POLYMER consistently underestimated Lwn (λ) with negative biases and lower coefficients of determination. It

has to be noted that POLYMER performance improved at 510, 560, and 665 nm, but large RSMEs and NMAEs, as well as larger dispersion were observed when compared to the operational algorithm (Figure 5)."

The authors apologize for these errors and state that these do not change the scientific conclusions of the article in any way. The original article has been updated.

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