

OCEAN OPTICS XXIV

Valamar Lacroma Dubrovnik Hotel | Dubrovnik, Croatia | October 7–12, 2018

<https://oceanopticsconference.org>

Thursday, October 11

Poster Session 4

10:30–12:00

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Poster 24

PHYTOPLANKTON OPTICAL PROPERTIES FOR STUDYING PHYTOPLANKTON ASSEMBLAGES IN THE TROPICAL INDIAN OCEAN

The Indian Ocean is the third largest ocean in the world covering approximately 20% of the total ocean area of world. To date, field observations, especially of phytoplankton, are scarce in the Indian Ocean and large areas of the Indian Ocean remains understudied, despite their importance in the controlling global primary production and biogeochemical cycles. In this study optical properties, measured in July-August 2014 during the SO235-OASIS (OrgAnic very short lived Substances and their air sea exchange from the Indian Ocean to the Stratosphere) cruise from Port Louis, Mauritius to Male, Maldives are used to characterise the phytoplankton assemblages regarding community structure and physiological condition in this tropical ocean by combining the results obtained with different optical measurements (high performance liquid chromatography, spectrophotometry, fast repetition rate fluorometry (FRRf), flow cytometry and hyperspectral radiometry, and satellite remote sensing) and microscopic cell counts. In addition, this in-situ information are then utilised to evaluate satellite products on phytoplankton and optical properties for this part of the World's Ocean.

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