

OCEAN OPTICS XXIV

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<https://oceanopticsconference.org>

Monday, October 8

Poster Session 1

16:00–18:00

Poster 181

ABSORPTION PROPERTIES OF CDOM ALONG THE NORWEGIAN COAST AND IMPLICATIONS FOR FERRYBOX OBSERVATIONS

A challenge for the optical remote sensing of Norwegian waters is the very high absorption by colored dissolved organic matter (cDOM), observed to be dominating the absorption below 600 nm regardless of seasons in some regions. There is also a very high variation in the cDOM optical properties along the coast, regionally and seasonally. The Norwegian ship of opportunity FerryBox network goes through a diverse array of water types from Germany in the South, along almost the whole Norwegian coast, through the Barents Sea up to Svalbard in the North and through the North Sea to Iceland in the West. A new national infrastructure program called NorSOOP will develop and extend the present network with new lines in the Arctic and Antarctic as well as new instrumentation, including cDOM fluorescence sensors and flow through absorption measurements. The cDOM measurements on our FerryBoxes already has and will continue to increase our understanding of the cDOM variation. We present cDOM fluorescence and spectral absorption data that show both seasonal and regional differences in magnitude, absorption, and the salinity dependency of the slope, as well as the application of this data for satellite validation.

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