

OCEAN OPTICS XXIV

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Tuesday, October 9

Poster Session 2

10:30–12:30

Poster 261

REFLECTANCE OF FLOATING MACROALGAE IN SEA SURFACE WATER: OBSERVATION AND SIMULATION

The occurrence of floating macroalgal blooms increased in worldwide oceans in the past decade. Optical remote sensing is the primary tool for the detection and biomass estimation of floating macroalgae. However, the spectral characteristics of floating macroalgae in sea surface waters were seldom investigated. In this work, two typical floating macroalgae were collected: green macroalgae (*Ulva* spp), and brown macroalgae (*Sargassum*); the sea surface reflectance of these two types of macroalgae in surface water were measured under controlled conditions in field work, and different reflectance curves were presented. Meanwhile, the sea surface reflectance of the submerged floating macroalgae in different water depths were simulated through a simplified optical model. The simulated reflectance and the field ones show good consistency, which suggests that the submerging effects of water on macroalgae can be quantified and the model of estimating the biomass of submerged macroalgae may be established.

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