Special Issue

Marine Optical Biogeochemistry: The Chemistry of Ocean Color

Message from the Guest Editor

Knowledge on light interactions with individual particles, dissolved matter or simply on bulk seawater provides a breadth of information on ocean biogeochemical properties. Inherent and apparent optical properties of seawater and its individual marine components are related to their biogeochemical properties—for instance, backscattering coefficients magnitude and spectral signature provide information on particle size distribution and particulate organic carbon concentration and have also been used to derive information on phytoplankton functional groups. This information can help to constrain carbon export/cycle and further understand the biological pump. When scaled up to satellite observations of ocean color, knowledge on marine optical properties leads to information on biogeochemical cycles at the synoptic scale. In this topic, we invite scientists to submit novel studies on the ocean biogeochemistry based on its optical properties, including development of new sensors to infer biogeochemical properties based on light measurements, in situ and laboratory experiments, modelling of the radiative field, as well as applications to satellite ocean color.

Guest Editor

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Editor-in-Chief

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