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Hydrooptical characteristics of the Laptev and East-Siberian Seas

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Based on the data of experimental investigations executed in open waters of the East - Siberian and Laptev Seas on the board of research vessel Ïvan Petrovïn 2003 and 2004, the empirical dependences between intensity of global short-wave radiation, concentration of suspended matter and depth of Secchi disk disappearance have been developed. Spectral measurements of penetrated to different depths solar radiation, carried out for the first time in the area under study, have allowed to estimate and, as a first approximation, to develop the empirical ratio between intensity of global solar radiation and PAR radiation in dependence on concentration of suspended matter. The long-term temporal-spatial variability of turbidity, PAR attenuation coefficients, and suspended materials concentration in 1950s – 1980s in comparison with measured ones in 1998 - 2007 is investigated with dataset of historical Secchi disc data, obtained during Russian Ice Patrol expeditions.