

Monitoring of optical properties of deep lake water

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Summary

We present the results of the one year monitoring of absorption and scattering lengths of light with wavelength 375–532 nm within the effective volume of the deep underwater neutrino telescope Baikal-GVD.

Knowledge of the optical properties of deep water of Baikal lake is essential for the operation of the Baikal-GVD as well as for the analysis of collected data.

We study the scattering and absorption of light with wavelenths in the range of 375–532 nm at a depth of 1250 m in Baikal lake, using «BAIKAL-5D» instrument, which was developed for in situ measurement of light scattering and absorption.

The data obtained make it possible to estimate long-term and short-term changes in absorption and scattering during the period from April 2020 to January 2021.